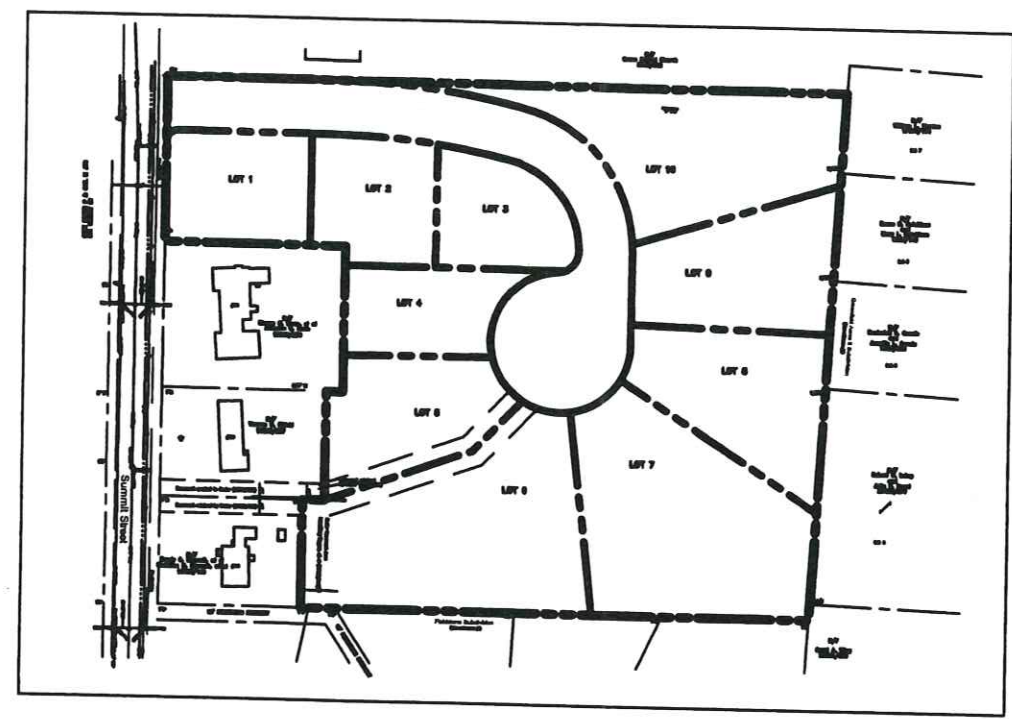


Plan Set (15 sheets)  
for PB Hearing  
April 8, 2008

**General Notes**

1. PLANIMETRIC AND TOPOGRAPHIC DETAIL SHOWN HEREON IS THE RESULT OF AN ON THE GROUND FIELD SURVEYS PERFORMED BY TITCOMB ASSOCIATES, JULY 6, 2005.
2. NORTH AS SHOWN HEREON IS BASED ON MAGNETIC 1983.
3. ELEVATIONS BASED ON CITY OF PORTLAND DATUM DERIVED FROM THE 3' OFFSET MONUMENT AT THE CORNER OF JACKSON STREET AND AUBURN STREET, ELEVATION=140.44. PROJECT BENCH MARK: NAIL IN UTILITY POLE #5 ON THE NORTHSIDE OF SUMMIT STREET, ELEVATION = 116.50
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "DIG-SAFE" AND LOCAL UTILITY COMPANIES AT LEAST 3 BUSINESS DAYS, BUT NOT MORE THAN 30 CALENDAR DAYS, PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, IN ACCORDANCE WITH MAINE STATE LAW.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MEANS, METHODS AND TECHNIQUES EMPLOYED TO PERFORM THE WORK SHOWN ON THESE PLANS.
6. ALL WORK SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.
7. ALL WORK SHALL BE IN CONFORMANCE WITH THE CITY OF PORTLAND STANDARDS & APPLICABLE UTILITY COMPANIES STANDARDS.
8. CONTRACTOR SHALL VERIFY LOCATIONS & DEPTHS OF ALL EXISTING UTILITIES WITH THE RESPECTIVE UTILITY COMPANY PRIOR TO THE START OF CONSTRUCTION. IF ANY DISCREPANCIES OR CONFLICTS ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING.
9. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THE WORK SHOWN ON THESE PLANS PRIOR TO CONSTRUCTION.
10. NO BLASTING WILL BE ALLOWED WITHIN 500 FT OF ANY UTILITY WITHOUT THE NOTIFICATION AND APPROVAL OF THE APPROPRIATE UTILITY COMPANY. NO LEDGE BLASTING WILL BE PERMITTED WITHIN A UTILITY COMPANY EASEMENT UNTIL WRITTEN APPROVAL FROM THE UTILITY IS GIVEN.
11. ALL PAVEMENT CUTS SHALL BE SAW CUT TO RESULT IN CLEAN EDGES. A TACK COAT SHALL BE APPLIED ALONG THE CUT EDGES AND NEW PAVEMENT BUTTED TO IT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
12. THE CONTRACTOR SHALL BE RESPONSIBLE TO RECLAIM OR PROPERLY DISPOSE OF ALL REMOVED BITUMINOUS MATERIALS.
13. INLETS AND OUTLETS OF ALL DRAIN LINES SHALL BE RIP RAPPED UNLESS OTHERWISE NOTED ON PLANS OR DIRECTED BY THE ENGINEER.
14. CONDUIT SHALL BE USED UNDER ALL PAVED AREAS IF REQUIRED FOR ELECTRIC, TELEPHONE AND TV IN ACCORDANCE WITH THE RESPECTIVE COMPANIES REQUIREMENTS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF EROSION CONTROLS AS SHOWN ON THESE PLANS AND IN ACCORDANCE WITH PRACTICES OF THE DEP "MAINE EROSION & SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES," LATEST EDITION.
16. ALL TRAFFIC MARKINGS AND SIGNAGE SHALL COMPLY WITH AASHTO AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 1988 OR LATER VERSION.
17. CONTRACTOR SHALL PROTECT ALL DESIGNATED TREE SAVE AREAS. STORAGE OF MATERIALS AND OPERATION OF EQUIPMENT OR MACHINERY WITHIN THE TREE SAVE AREAS SHALL BE PROHIBITED.

# Subdivision Application



**Legend**

	CONTOUR		SPOT GRADE
	PROPERTY LINE		ROADWAY CENTERLINE
	BUILDING WINDOW		EDGE OF PAVEMENT
	BT CURB		BUILDING
	SANITARY SEWER		STORM DRAIN
	GAS		WATER MAIN
	OVERHEAD WIRE		UNDERGROUND ELEC.
	TELEPHONE & CATV		UTILITY POLE
	CATCH BASIN		MANHOLE
	HYDRANT		GATE VALVE
	TRANSFORMER		RFP RAP
	SIDEWALK RAMP		STONE WALL
	STONE CHECK DAM		EROSION CONTROL MATTING
	LIGHT FIXTURE/BASE		BELT FENCE
	WOOD FENCE		PLANNED END SECTION
	STANDARD CULVERT END		WETLANDS
	GRANITE MONUMENT		IRON ROD SET
	TREE SAVE FEMO MARKER		TREE SAVE AREA

SEE PLAT PLAN 10P1 FOR ADDITIONAL LEGEND

**Utilities:**

- \* WATER: PORTLAND WATER DISTRICT - DAVID COFFIN, ENGINEERING 207-774-5961
- \* SEWER: CITY OF PORTLAND DPW - BRAD ROLAND 207-874-8846
- \* ELECTRIC: CMP - BARBARA WACKER 207-490-3074
- \* TELEPHONE: VERIZON - GEORGE HILLMAN 207-797-1798
- \* CABLE: TIME WARNER CABLE - DEB PAIEMENT 207-253-2662

## Morningstar Lane

Summit Street  
Portland, Maine 04101

Prepared For:  
Morningstar Real Estate Trust  
9 Craigie Street, Portland, Maine 04102

**Index Of Drawings**

DWG #	Description
0	COVER SHEET
(1 of 1)	EXISTING CONDITIONS SURVEY
(1 of 1)	RECORDING PLAT (TO BE SUBMITTED FOR FINAL)
1	EXISTING CONDITIONS & REMOVALS
2	MORNINGSTAR LANE PLAN & PROFILE
3	XC SEWER PLAN & PROFILE
4	LOT GRADING, DRAINAGE & EROSION CONTROLS
5	LANDSCAPING & LIGHTING
6	PRE-DEVELOPMENT DRAINAGE
6A	AERIAL DRAINAGE STUDY MAP
7	POST-DEVELOPMENT DRAINAGE
8	EROSION CONTROL NOTES
9	DETAILS
10	DETAILS
11	DETAILS
12	DETAILS

**Project Team**

**Engineering, Permitting & Landscape Architecture:**

STANTEC CONSULTING (formerly Land Use Consultants, Inc.)  
22 Free Street Suite 205  
Portland, ME 04101-3900  
(207) 775-3211

**Aquatic Resources and Wildlife Habitat**

STANTEC CONSULTING (formerly Woodlot Alternatives)  
30 Park Drive  
Topsham, ME 04086  
(207) 729-1199

**Survey:**

TITCOMB ASSOCIATES  
133 Gray Road  
Falmouth, ME 04105  
(207) 797-9199

**Wetlands:**

MARK HAMPTON ASSOCIATES  
PO Box 1931  
Portland, ME 04104  
(207) 773-8650

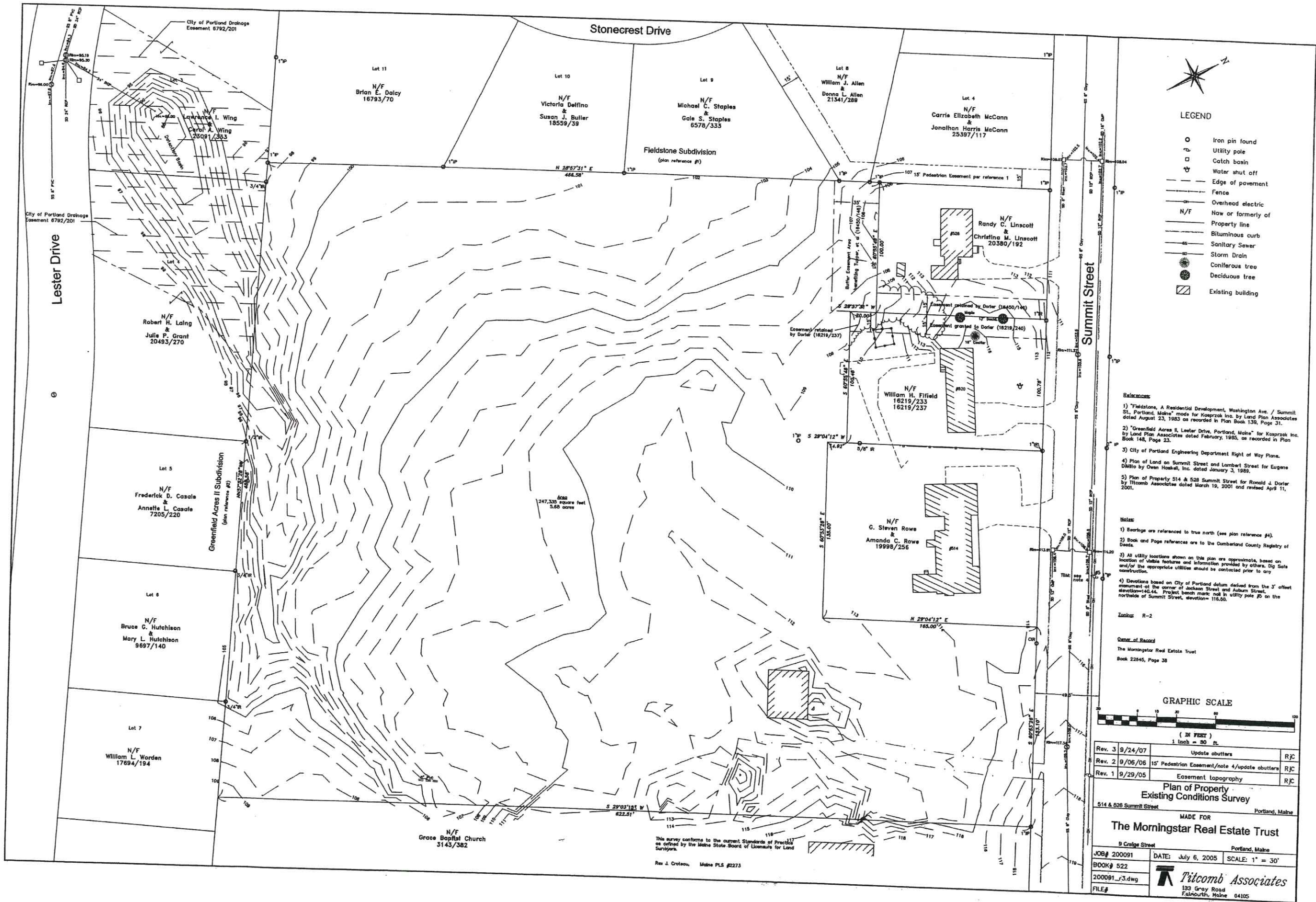
**Traffic:**

MAINE TRAFFIC RESOURCES  
Diane Morabito, P.E.  
25 Vine St.  
Gardiner, ME 04345  
(207)582-1677



- 03/31/08 Revised for Staff Review
- 02/15/08 Revised for Staff Review
- 12/28/07 Revised Per 12/27/07 Eng/Staff Review Comments
- 12/07/07 Revised Per 12/03/07 Eng/Staff Review Comments
- 10/25/07 Preliminary Review - City of Portland
- 09/22/06 Revised Per 8/31/06 Eng/Staff Review Comments
- 06/16/06 Revised Per Eng/Staff Review Comments
- Issue: 10/04/05 Preliminary Review - City of Portland





LEGEND

- Iron pin found
- Utility pole
- Catch basin
- Water shut off
- Edge of pavement
- Fence
- Overhead electric
- N/F Now or formerly of
- Property line
- Bituminous curb
- Sanitary Sewer
- Storm Drain
- Coniferous tree
- Deciduous tree
- ▨ Existing building

References:

- 1) "Fieldstone, A Residential Development, Washington Ave. / Summit St., Portland, Maine" made for Kasprk Inc. by Land Plan Associates dated August 23, 1983 as recorded in Plan Book 136, Page 31.
- 2) "Greenfield Acres II, Lester Drive, Portland, Maine" for Kasprk Inc. by Land Plan Associates dated February, 1985, as recorded in Plan Book 148, Page 23.
- 3) City of Portland Engineering Department Right of Way Plans.
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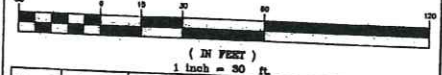
Notes:

- 1) Bearings are referenced to true north (see plan reference #4).
- 2) Book and Page references are to the Cumberland County Registry of Deeds.
- 3) All utility locations shown on this plan are approximate, based on available data and information provided by others. Dig Safe construction.
- 4) Elevations based on City of Portland datum derived from the 'J' offset monument at the corner of Jackson Street and Auburn Street, elevation=146.44. Project bench mark: nail in utility pole JO on the northside of Summit Street, elevation= 116.50.

Zoning: R-2

Owner of Record  
The Morningstar Real Estate Trust  
Book 22945, Page 38

GRAPHIC SCALE



Rev. 3	9/24/07	Update setbacks	RJC
Rev. 2	9/06/06	15' Pedestrian Easement/note 4/update setbacks	RJC
Rev. 1	9/29/05	Easement topography	RJC

**Plan of Property  
Existing Conditions Survey**

514 & 528 Summit Street  
Portland, Maine

MADE FOR  
**The Morningstar Real Estate Trust**

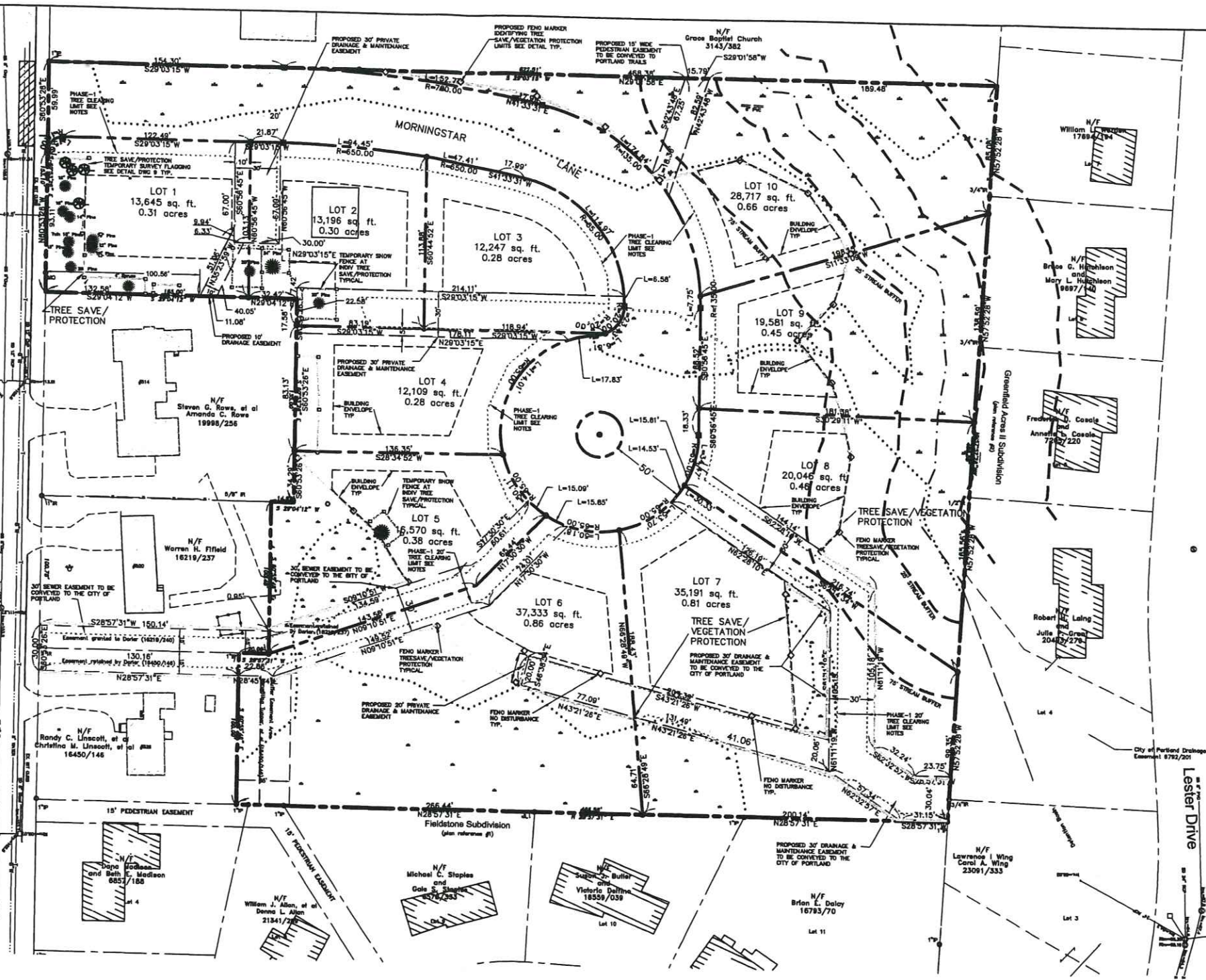
9 Colgate Street  
Portland, Maine

JOB# 200091	DATE: July 6, 2005	SCALE: 1" = 30'
BOOK# 522		
200091_r3.dwg		
FILE#		

**Pitcomb Associates**  
 193 Gray Road  
 Fairbourn, Maine 04105

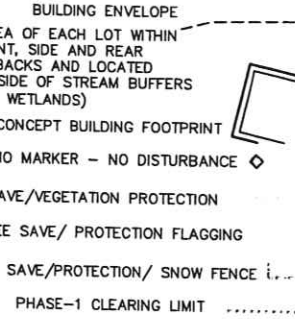
This survey conforms to the current Standards of Practice as defined by the Maine State Board of Licensure for Land Surveyors.

Rev. J. Croston, Maine PLS #2273



LEGEND

- Iron pin found
- Utility pole
- Catch basin
- ⊕ Water shut off
- Edge of pavement
- Fence
- Overhead electric
- N/F Now or formerly of
- Property line
- Bituminous curb
- Sanitary Sewer
- Storm Drain
- ▨ Existing building
- Proposed easement
- ⋯ Wetland boundary
- Iron pin to be set
- Monument to be set



CITY OF PORTLAND SUBDIVISION NOTES:

1. LANDSCAPING SHALL MEET THE "ARBORCULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE GUIDELINES" OF THE CITY OF PORTLAND, TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
2. THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DEPICTED ON THE SUBDIVISION PLAN. APPROVAL OF THE PLANNING AUTHORITY OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATION TO OR DEVIATION FROM THE APPROVED SUBDIVISION PLAN, INCLUDING, WITHOUT LIMITATION: TOPOGRAPHY; DRAINAGE; LANDSCAPING; RETENTION OF DO NOT DISTURB AREAS; AND ACCESS.
3. ALL POWER LINE UTILITIES SHALL BE UNDERGROUND.
4. SIDEWALKS AND CURBS SHALL BE DESIGNED AND BUILT WITH TIP DOWN RAMPS AT ALL STREET CORNERS, CROSSWALKS AND DRIVEWAYS IN CONFORMANCE WITH THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DESIGNED IN ACCORDANCE WITH MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION. BEST MANAGEMENT PRACTICES PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION LATEST EDITION. (NOTE: ALL SITE PLANS FOR EACH LOT SHALL SPECIFY THE EROSION CONTROL DEVICE TO BE EMPLOYED (SILT FENCE, HAY BALE, ETC.) AS WELL AS THEIR LOCATION).
6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR GRADING.
7. ALL DISTURBED AREAS ON THE SITE NOT COVERED BY BUILDINGS OR PAVED AREAS SHALL BE STABILIZED WITH LOAM AND SEED OR OTHER METHODS AS REQUIRED BY BEST MANAGEMENT PRACTICES (SEE ABOVE).
8. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING SHALL BE HELD AT THE PROJECT SITE WITH THE CONTRACTOR, DEVELOPMENT REVIEW COORDINATOR, PUBLIC WORKS REPRESENTATIVE AND OWNER TO REVIEW THE CONSTRUCTION SCHEDULE AND CRITICAL ASPECTS OF THE SITE WORK. AT THAT TIME, THE SITE/BUILDING CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A DETAILED CONSTRUCTION SCHEDULE TO THE ATTENDING CITY REPRESENTATIVE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A MUTUALLY AGREEABLE TIME FOR THE PRECONSTRUCTION MEETING.
9. EXISTING VEGETATION SHALL BE CONSERVED IN AREAS SHOWN ON THIS SITE. FENCING OR OTHER PROTECTIVE BARRIERS SHALL BE DIRECTED OUTSIDE THE DRIP-LINE OF INDIVIDUAL TREES AND TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION. REGRADING SHALL NOT TAKE PLACE WITHIN THE DRIP-LINE OF TREES DESIGNATED FOR PRESERVATION. NO STORAGE OR CONSTRUCTION MATERIALS SHALL BE PERMITTED WITHIN THE DRIP-LINE OF TREES TO BE PRESERVED.
10. SUBDIVISION SHALL MEAN THE SUBDIVISION OF A LOT, TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE LOTS, INCLUDING LOTS OF FORTY (40) ACRES OR MORE WITHIN ANY FIVE-YEAR PERIOD WHETHER ACCOMPLISHED BY SALE, LEASE, DEVELOPMENT, BUILDINGS OR OTHERWISE AND AS FURTHER DEFINED IN 30-A M.R.S.A. SECTION 4401. THE TERM SUBDIVISION SHALL ALSO INCLUDE THE DIVISION OF A NEW STRUCTURE OR STRUCTURES ON A TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD AND THE DIVISION OF AN EXISTING STRUCTURE OR STRUCTURES PREVIOUSLY USED FOR COMMERCIAL OR INDUSTRIAL USE INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD. THE AREA INCLUDED IN THE EXPANSION OF AN EXISTING STRUCTURE IS DEEMED TO BE A NEW STRUCTURE FOR THE PURPOSES OF THIS PARAGRAPH. A DWELLING UNIT SHALL INCLUDE ANY PART OF A STRUCTURE WHICH, THROUGH SALE OR LEASE, IS INTENDED FOR HUMAN HABITATION, INCLUDING SINGLE-FAMILY AND MULTIFAMILY HOUSING CONDOMINIUMS, TIME-SHARE UNITS AND APARTMENTS.
11. ALL BUILDING ENVELOPES, CURB CUTS, FILL AND DRAINAGE FOR ANY LOT MUST BE IMPLEMENTED IN CONFORMANCE WITH THE GRADING AND DRAINAGE PLAN (DRAWING 4, REV DATED 3-31-2008), ON FILE WITH THE CITY OF PORTLAND PLANNING DEPARTMENT. THE BUILDING ENVELOPES SHOWN WITHIN THE PLAN SET REPRESENT THE MAXIMUM AREA FOR CONSTRUCTION OF PRINCIPALS AND ACCESSORY STRUCTURES. ANY DEVIATIONS FROM OR CHANGES TO, THE BUILDING ENVELOPES, CURB CUTS, FILL OR DRAINAGE AND PRIOR TO THE COMMENCEMENT AND SUCH APPROVAL, IF GRANTED, WILL BE RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS WITH A REFERENCE TO THE PLAN BOOK AND PAGE NUMBER OF THE ORIGINALLY APPROVED LOT. NOTE THAT THE BUILDING FOOTPRINTS AS SHOWN ARE CONCEPTUAL FOR ANY LOT DEPICTED. THE PROPOSED BUILDING SIZE AND LOCATION WITHIN ANY BUILDING ENVELOPE DEPENDS UPON FINISH FLOOR ELEVATIONS, GRADING PLANS, PRESERVATION, SOIL STABILITY AND EROSION CONTROL ETC. WHICH SHALL BE REVIEWED BY THE CITY PLANNING AUTHORITY DURING SITE PLAN REVIEW OF EACH LOT.

TREE SAVE & VEGETATION PROTECTION NOTES

1. TREE CLEARING: PHASE 1 TREE CLEARING SHALL BE LIMITED TO THE ROAD RIGHT OF WAY, DRAINAGE EASEMENT AND UTILITY RIGS (SANITARY SEWER EASEMENT). AFTER COMPLETION OF THE ROAD CONSTRUCTION, THE APPLICANT SHALL OBTAIN THE SERVICES OF A LICENSED MAINE ARBORIST TO RECOMMEND MEASURES FOR THE APPLICANT TO TAKE TO ENHANCE TREE SURVIVAL IN THE TREE SAVE/PROTECTION AREAS.
- PHASE 2 TREE CLEARING: PRIOR TO CLEARING FOR INDIVIDUAL HOUSE LOTS, THE CITY ARBORIST SHALL INSPECT THE LOTS AND IDENTIFY TREES OUTSIDE THE BUILDING ENVELOPE TO BE PRESERVED. THESE SHALL BE MARKED AND ADDED TO THE INDIVIDUAL LOT PLANS. IF TREES IDENTIFIED TO BE PRESERVED BY THE CITY ARBORIST ARE UNABLE TO BE PRESERVED, THEY SHALL BE REPLACED IN THE WORTHY WITH A TREE (TWO TREES WHERE TREES LARGER THAN 12" DBH ARE LOST) WITH CREDIT GIVEN TO TREES PROPOSED WITHIN THE LOTS OTHER THAN 2 STREET TREES PER LOT, AS SHOWN ON LANDSCAPE PLAN DRAWING #5 DATED MARCH 31, 2008.
2. PRIOR TO THE SALE OF ANY LOT, "FENO" MARKERS SHALL BE PLACED EVERY 50 FEET: (1) AT THE CORNERS AND ALONG THE LINE OF THE "PROPOSED 20' PRIVATE DRAINAGE AND MAINTENANCE EASEMENT" OVER LOTS 6 AND 7 WITH THE FENO MARKERS TO BEAR THE ENGRAVED WORDING: "DO NOT FILL ALTER OR DISTURB BEYOND THIS POINT;" AND (2) AT THE CORNERS AND LIMITS OF TREE SAVE/VEGETATION PROTECTION AREAS IN THE REAR YARDS OF LOTS 5-10, EXCEPT FOR THOSE AREAS ALONG LOTS 6&7 WHERE FENO MARKERS SHALL BE PLACED ALONG THE LINE OF THE "20 FT PRIVATE DRAINAGE & MAINTENANCE EASEMENT" AS PROVIDED IN (1) ABOVE, WITH FENO MARKERS TO BEAR THE ENGRAVED WORDING: "DO NOT FILL ALTER OR DISTURB BEYOND THIS POINT;" A REQUIREMENT IN THE ASSOCIATION DOCUMENTS AND DEED SHALL NOTE THE FENO MARKERS SHALL NOT BE REMOVED.
3. THE TREE SAVE/VEGETATION PROTECTION AREAS ON LOTS 5,6,7,8,9 AND 10 SHALL BE FURTHER RESTRICTED AS FOLLOWS: NO DISTURBANCE TO VEGETATION OR GROUND COVER SHALL TAKE PLACE WITHIN THESE AREAS, INCLUDING DISTURBANCE THROUGH TREE CUTTING, GRADING, MOWING, RAKING, GRASS CLIPPING/ LEAF DUMPING AND/OR REMOVAL OF FALLEN TREES. PROVIDED, HOWEVER, THAT HAZARDOUS TREES/ TREE LIMBS, INCLUDING BUT NOT LIMITED TO LEANING TREES THAT THREATEN STRUCTURES, ARE ALLOWED TO BE REMOVED, SUBJECT TO THE APPROVAL OF THE PORTLAND PLANNING AUTHORITY (CITY ARBORIST); AND THAT THE PROPOSED PORTLAND TRAILS PEDESTRIAN EASEMENT MAY BE CONSTRUCTED AND USED FOR ITS INTENDED PURPOSES AS SHOWN ON THE PLAN. DEPARTMENT OF ENVIRONMENTAL PROTECTION APPROVAL SHALL BE OBTAINED PRIOR TO ANY ADDITIONAL WETLAND ALTERATIONS ON THE PROJECT SITE.
4. THE INDIVIDUAL TREE SAVES ON LOTS 1-4 SHALL BE PROTECTED AS DEPICTED ON THE LANDSCAPING AND LIGHTING PLAN, DRAWING 5, REV. 3-31-2008, AVAILABLE FROM THE CITY OF PORTLAND PLANNING DEPARTMENT.

DEP TIER 1 APPROVAL SPECIAL CONDITION:

PRIOR TO THE START OF CONSTRUCTION ON INDIVIDUAL LOTS, THE STREAM BUFFERS, AS DEPICTED BY THE PROPOSED TREE LINE ON LOTS 5, 6 AND 10, AND THE WETLANDS ON LOTS 5, 6 AND 7, AS SHOWN ON DRAWING 4 "LOT GRADING, DRAINAGE & EROSION PLAN" DATED 3-31-08 OF THE PLANS REFERRED TO IN PARAGRAPH 11 ABOVE, SHALL BE PERMANENTLY MARKED ON THE GROUND. IN ADDITION, THE DEEDS FOR LOTS 5 THROUGH 10 MUST HAVE ATTACHED TO THEM A BUFFER OR WETLAND ON THAT LOT. THE WETLANDS AND STREAM BUFFERS SHALL REMAIN IN THEIR NATURAL STATE EXCEPT THAT LEANING TREES THAT THREATEN STRUCTURES MAY BE REMOVED. DEPARTMENT APPROVAL SHALL BE OBTAINED PRIOR TO ANY ADDITIONAL WETLAND ALTERATIONS ON THE PROJECT SITE.

Stantec Consulting Services Inc.  
22 Free Street, Suite 205  
Portland, ME U.S.A.  
04101-3900  
Tel. 207.775.3211  
Fax. 207.775.6434

MORNINGSTAR LANE  
SUMMIT STREET, PORTLAND, MAINE  
PREPARED FOR:  
MORNINGSTAR REAL ESTATE TRUST  
9 CRAIG STREET  
PORTLAND, MAINE 04102

Revision	Date
REVISED PER ENG/STAFF REVIEW COMMENTS	8-18-06
REVISED PER ENG/STAFF REVIEW COMMENTS	8-22-06
PRELIMINARY REVIEW - CITY OF PORTLAND	10-25-07
REVISED PER ENG/STAFF REVIEW COMMENTS	11-15-07
REVISED PER ENG/STAFF REVIEW COMMENTS	12-07-07
REVISED PER ENG/STAFF REVIEW COMMENTS	12-26-07
REVISED PER ENG/STAFF REVIEW COMMENTS	02-15-08
REVISED PER ENG/STAFF REVIEW COMMENTS	03-21-08
REVISED PER ENG/STAFF REVIEW COMMENTS	05-31-08

Designed LDM	Drawn PJP	Checked LDM	Scale	Date
			1" = 40'	05-07-07

RECORDING PLAT

Job No. 210800 008  
Drawing

- References:
- 1) "Fieldstone, A Residential Development, Washington Ave. / Summit St., Portland, Maine" made for Kasprzak Inc. by Land Plan Associates dated August 23, 1983 as recorded in Plan Book 139, Page 31.
  - 2) "Greenfield Acres II, Lester Drive, Portland, Maine" for Kasprzak Inc. by Land Plan Associates dated February, 1985, as recorded in Plan Book 144, Page 23.
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  - 5) Plan of Property 514 & 526 Summit Street for Ronald J. Dorier by Tilcomb Associates dated March 19, 2001 and revised April 11, 2001.

- Notes:
- 1) Bearings are referenced to true north (see plan reference #4).
  - 2) Book and Page references are to the Cumberland County Registry of Deeds.
  - 3) All utility locations shown on this plan are approximate, based on location of visible features and information provided by others. Dig Safe and/or the appropriate utilities should be contacted prior to any construction.

APPROVED BY CITY OF PORTLAND PLANNING BOARD: _____ (DATE)	

PROJECT DATA:

1. PROPERTY IS LOCATED IN THE R-2 RESIDENTIAL ZONE WHICH PERMITS MEDIUM DENSITY SINGLE FAMILY DWELLINGS ON INDIVIDUAL LOTS
2. PARCEL ACREAGE:
 

LOTS 1 TO 10	4.78 AC
PROPOSED ROW	0.89 AC
TOTAL AREA	5.68 AC
3. SPACE & BULK REGULATIONS: R-2 RESIDENTIAL ZONE - SINGLE FAMILY
 

	REQUIRED	PROPOSED
* MIN LOT AREA	10,000 SF	10,132 SF
* MIN STREET FRONTAGE	50'	
* MIN FRONT & REAR YARD	25'	
* MIN SIDE YARD	1 STORY = 12'	
	1.5 STORY = 12'	
	2 STORY = 14'	
	2.5 STORY = 16'	

(REFER TO ZONING ORDINANCE FOR ACCESSORY STRUCTURES & SWIMMING POOLS)

* MAX BUILDING HEIGHT	35'
* MAX LOT COVERAGE	20%
* MIN LOT WIDTH	80'

OWNER OF RECORD

THE MORNINGSTAR REAL ESTATE TRUST  
BOOK 22645, PAGE 38

CERTIFICATION:

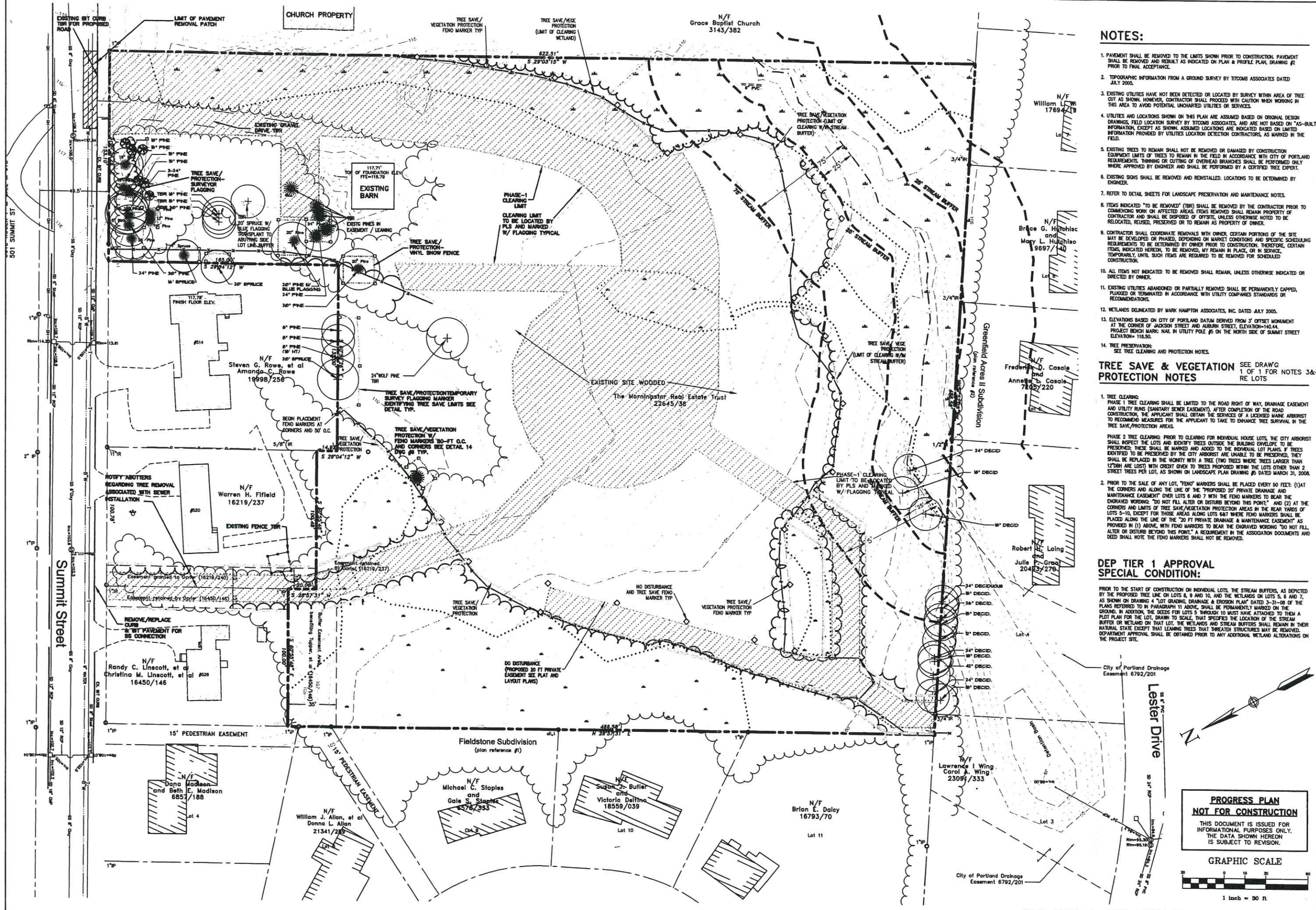
This survey conforms to the current Standards of Practice as defined by the Maine State Board of Licensure for Land Surveyors.

Rex J. Croteau, Maine PLS #2273

PROGRESS PLAN NOT FOR CONSTRUCTION

THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.

FOR REGISTRY OF DEEDS



**NOTES:**

- PAVEMENT SHALL BE REMOVED TO THE LIMITS SHOWN PRIOR TO CONSTRUCTION. PAVEMENT SHALL BE REPAVED AND REBUILT AS INDICATED ON PLAN & PROFILE PLAN, DRAWING #2 PRIOR TO FINAL ACCEPTANCE.
- TOPOGRAPHIC INFORMATION FROM A GROUND SURVEY BY TITCOMB ASSOCIATES DATED JULY 2005.
- EXISTING UTILITIES HAVE NOT BEEN DETECTED OR LOCATED BY SURVEY WITHIN AREA OF TREE CUT AS SHOWN. HOWEVER, CONTRACTOR SHALL PROCEED WITH CAUTION WHEN WORKING IN THIS AREA TO AVOID POTENTIAL UNCHARTED UTILITIES OR SERVICES.
- UTILITIES AND LOCATIONS SHOWN ON THIS PLAN ARE ASSUMED BASED ON ORIGINAL DESIGN DRAWINGS. FIELD LOCATION SURVEY BY TITCOMB ASSOCIATES, AND ARE NOT BASED ON "AS-BUILT" INFORMATION EXCEPT AS SHOWN. ASSUMED LOCATIONS ARE INDICATED BASED ON LIMITED INFORMATION PROVIDED BY UTILITIES LOCATION DETECTION CONTRACTORS, AS MARKED IN THE FIELD.
- EXISTING TREES TO REMAIN SHALL NOT BE REMOVED OR DAMAGED BY CONSTRUCTION. EQUIPMENT LIMITS OF TREES TO REMAIN IN THE FIELD IN ACCORDANCE WITH CITY OF PORTLAND REQUIREMENTS. THINNING OR CUTTING OF OVERHEAD BRANCHES SHALL BE PERFORMED ONLY WHERE APPROVED BY ENGINEER AND SHALL BE PERFORMED BY A CERTIFIED TREE EXPERT.
- EXISTING SIGNS SHALL BE REMOVED AND REINSTALLED. LOCATIONS TO BE DETERMINED BY ENGINEER.
- REFER TO DETAIL SHEETS FOR LANDSCAPE PRESERVATION AND MAINTENANCE NOTES.
- ITEMS INDICATED "TO BE REMOVED" (TR) SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO COMMENCING WORK ON AFFECTED AREAS. ITEMS REMOVED SHALL REMAIN PROPERTY OF CONTRACTOR AND SHALL BE DISPOSED OF OFFSITE, UNLESS OTHERWISE NOTED TO BE RELOCATED, REUSED, PRESERVED OR TO REMAIN AS PROPERTY OF OWNER.
- CONTRACTOR SHALL COORDINATE REMOVALS WITH OWNER. CERTAIN PORTIONS OF THE SITE MAY BE DEVELOPED OR PHASED, DEPENDING ON MARKET CONDITIONS AND SPECIFIC SCHEDULING REQUIREMENTS TO BE DETERMINED BY OWNER PRIOR TO CONSTRUCTION. THEREFORE, CERTAIN ITEMS, INDICATED HEREON, TO BE REMOVED, MAY REMAIN IN PLACE, OR IN SERVICE, TEMPORARILY, UNTIL SUCH ITEMS ARE REQUIRED TO BE REMOVED FOR SCHEDULED CONSTRUCTION.
- ALL ITEMS NOT INDICATED TO BE REMOVED SHALL REMAIN, UNLESS OTHERWISE INDICATED OR DIRECTED BY OWNER.
- EXISTING UTILITIES ABANDONED OR PARTIALLY REMOVED SHALL BE PERMANENTLY CAPPED, PLUGGED OR TERMINATED IN ACCORDANCE WITH UTILITY COMPANIES STANDARDS OR RECOMMENDATIONS.
- WETLANDS DELINEATED BY MARK HAMPTON ASSOCIATES, INC. DATED JULY 2005.
- ELEVATIONS BASED ON CITY OF PORTLAND DATUM DERIVED FROM 3' OFFSET MONUMENT AT THE CORNER OF JACKSON STREET AND AUBURN STREET, ELEVATION=140.44. PROJECT BENCH MARK: NA IN UTILITY POLE #5 ON THE NORTH SIDE OF SUMMIT STREET ELEVATION= 116.80.
- TREE PRESERVATION: SEE TREE CLEARING AND PROTECTION NOTES.

**TREE SAVE & VEGETATION PROTECTION NOTES**

- TREE CLEARING:** PHASE 1 TREE CLEARING SHALL BE LIMITED TO THE ROAD RIGHT OF WAY, DRAINAGE EASEMENT AND UTILITY RUNS (SANITARY SEWER EASEMENT). AFTER COMPLETION OF THE ROAD CONSTRUCTION, THE APPLICANT SHALL OBTAIN THE SERVICES OF A LICENSED WARE ARBORIST TO RECOMMEND MEASURES FOR THE APPLICANT TO TAKE TO ENHANCE TREE SURVIVAL IN THE TREE SAVE/PROTECTION AREAS.
  - TREE PRESERVATION:** PRIOR TO CLEARING FOR INDIVIDUAL HOUSE LOTS, THE CITY ARBORIST SHALL INSPECT THE LOTS AND IDENTIFY TREES OUTSIDE THE BUILDING FOOTPRINT TO BE PRESERVED; THESE SHALL BE MARKED AND ADDED TO THE INDIVIDUAL LOT PLANS. IF TREES IDENTIFIED TO BE PRESERVED BY THE CITY ARBORIST ARE UNABLE TO BE PRESERVED, THEY SHALL BE REPLACED IN THE VICINITY WITH A TREE (TWO TREES WHERE TREES LARGER THAN 12" DBH ARE LOST) WITH CROWN GIVEN TO TREES PROPOSED WITHIN THE LOTS OTHER THAN 2 STREET TREES PER LOT, AS SHOWN ON LANDSCAPE PLAN DRAWING #5 DATED MARCH 31, 2008.
- PRIOR TO THE SALE OF ANY LOT, "FENO" MARKERS SHALL BE PLACED EVERY 50 FEET: (1) AT THE CORNERS AND ALONG THE LINE OF THE "PROPOSED 20' PRIVATE DRAINAGE AND MAINTENANCE EASEMENT" OVER LOTS 6 AND 7 WITH THE FENO MARKERS TO BEAR THE ENGRAVED WORDING: "DO NOT FILL, ALTER OR DISTURB BEYOND THIS POINT;" AND (2) AT THE CORNERS AND LIMITS OF TREE SAVE/VEGETATION PROTECTION AREAS IN THE REAR YARDS OF LOTS 5-10, EXCEPT FOR THOSE AREAS ALONG LOTS 6&7 WHERE FENO MARKERS SHALL BE PLACED ALONG THE LINE OF THE "20 FT PRIVATE DRAINAGE & MAINTENANCE EASEMENT" AS PROVIDED IN (1) ABOVE, WITH FENO MARKERS TO BEAR THE ENGRAVED WORDING "DO NOT FILL, ALTER OR DISTURB BEYOND THIS POINT." A REQUIREMENT IN THE ASSOCIATION DOCUMENTS AND DEED SHALL NOTE THE FENO MARKERS SHALL NOT BE REMOVED.

**DEP TIER 1 APPROVAL SPECIAL CONDITION:**

PRIOR TO THE START OF CONSTRUCTION ON INDIVIDUAL LOTS, THE STREAM BUFFERS, AS DEPICTED BY THE PROPOSED TREE LINE ON LOTS 8 AND 9 AND THE WETLANDS ON LOTS 5, 6 AND 7, AS SHOWN ON DRAWING 4 "LOT GRADING, DRAINAGE & EROSION PLAN" DATED 3-31-08 OF THE PLANS REFERRED TO IN PARAGRAPH 1 ABOVE, SHALL BE PERMANENTLY MARKED ON THE GROUND. IN ADDITION, THE DEEDS FOR LOTS 5 THROUGH 10 MUST HAVE ATTACHED TO THEM A PLOT PLAN FOR THE LOT, DRAWN TO SCALE, THAT SPECIFIES THE LOCATION OF THE STREAM BUFFER OR WETLAND ON THAT LOT. THE WETLANDS AND STREAM BUFFERS SHALL REMAIN IN THEIR NATURAL STATE EXCEPT THAT LEAVING TREES THAT THREATEN STRUCTURES MAY BE REMOVED. DEPARTMENT APPROVAL SHALL BE OBTAINED PRIOR TO ANY ADDITIONAL WETLAND ALTERATIONS ON THE PROJECT SITE.

**PROGRESS PLAN**  
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**GRAPHIC SCALE**  
 1 inch = 30 ft

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 22 Free Street, Suite 205  
 Portland, ME U.S.A.  
 04101-3900  
 Tel: 207-775.3211  
 Fax: 207-775.6434

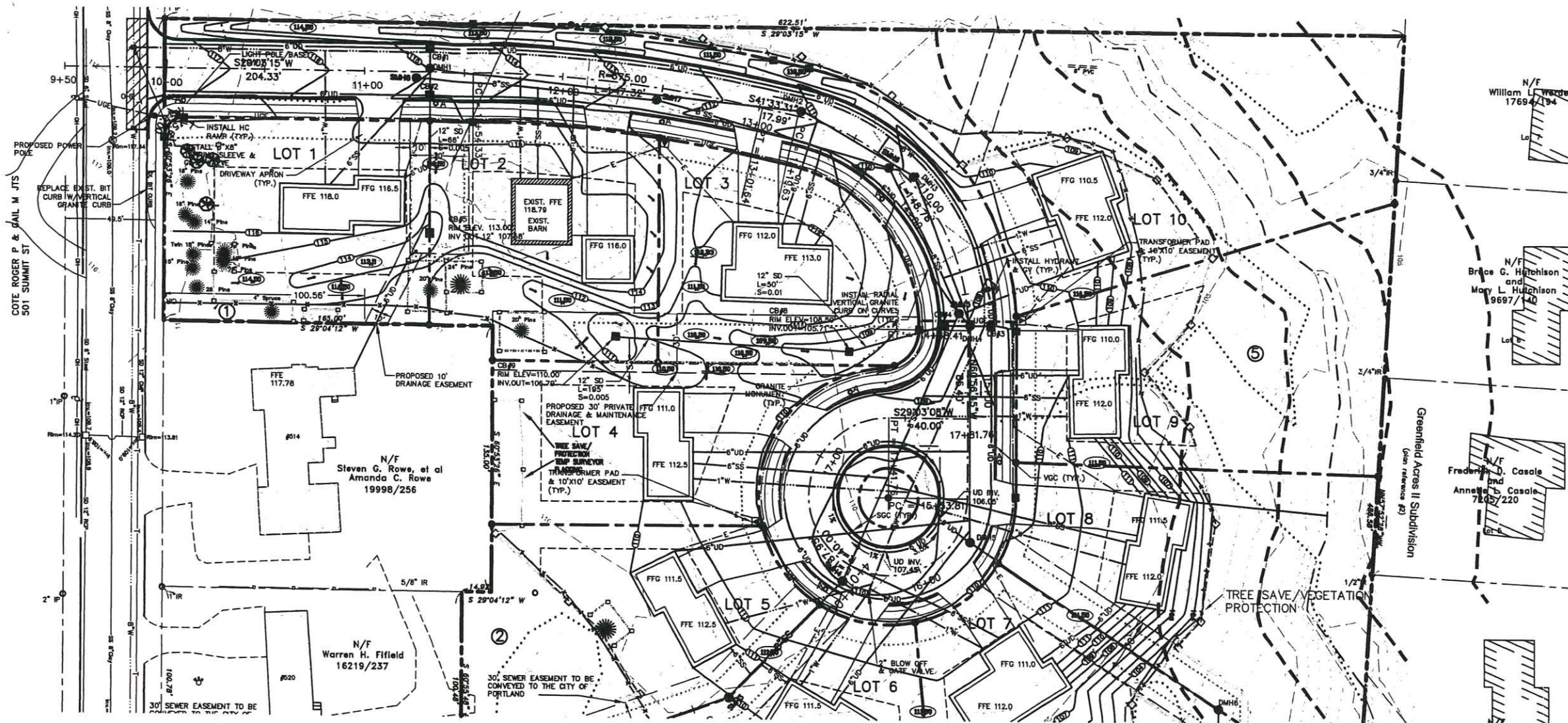


**MORNINGSTAR LANE**  
 SUMMIT STREET, PORTLAND, MAINE  
 PREPARED FOR:  
**MORNINGSTAR REAL ESTATE TRUST**  
 9 CRAIGIE STREET  
 PORTLAND, MAINE 04102

Revision	Date
REVISED PER ENG/STAFF REVIEW COMMENTS	6-18-08
REV. PER 8/21/08 STAFF REVIEW COMMENTS	8-28-08
PRELIMINARY REVIEW - CITY OF PORTLAND	10-29-07
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REVISED PER ENG/STAFF REVIEW COMMENTS	12-28-07
REVISED PER ENG/STAFF REVIEW COMMENTS	02-15-08
REVISED PER ENG/STAFF REVIEW COMMENTS	03-31-08

**EXISTING CONDITIONS & REMOVALS**

Job No. 210800008  
 Drawing



- NOTES:**
- HOUSE STYLES, AND LOCATIONS ARE CONCEPTUAL ONLY. FINAL DESIGNS BY INDIVIDUAL LOT OWNERS. DRIVEWAY LOCATIONS AND DRAINAGE SCHEME SHALL NOT BE ALTERED FROM THE APPROVED SITE PLAN.
  - CONTRACTOR TO PROVIDE DRIVE APRONS TO ROW LINE.
  - ALL CURBING RADIUS 100' SHALL BE RADIAL OUT PER PLAN DIMENSIONS.
  - SEE PLAT PLAN FOR TREE SAVE/ PROTECTION NOTES.
  - UTILITY STUB LOCATIONS ARE CONCEPTUAL ONLY. FINAL LOCATION TO BE DETERMINED IN FIELD.

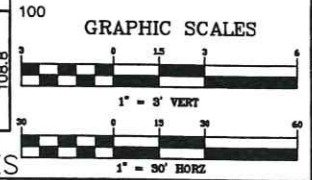
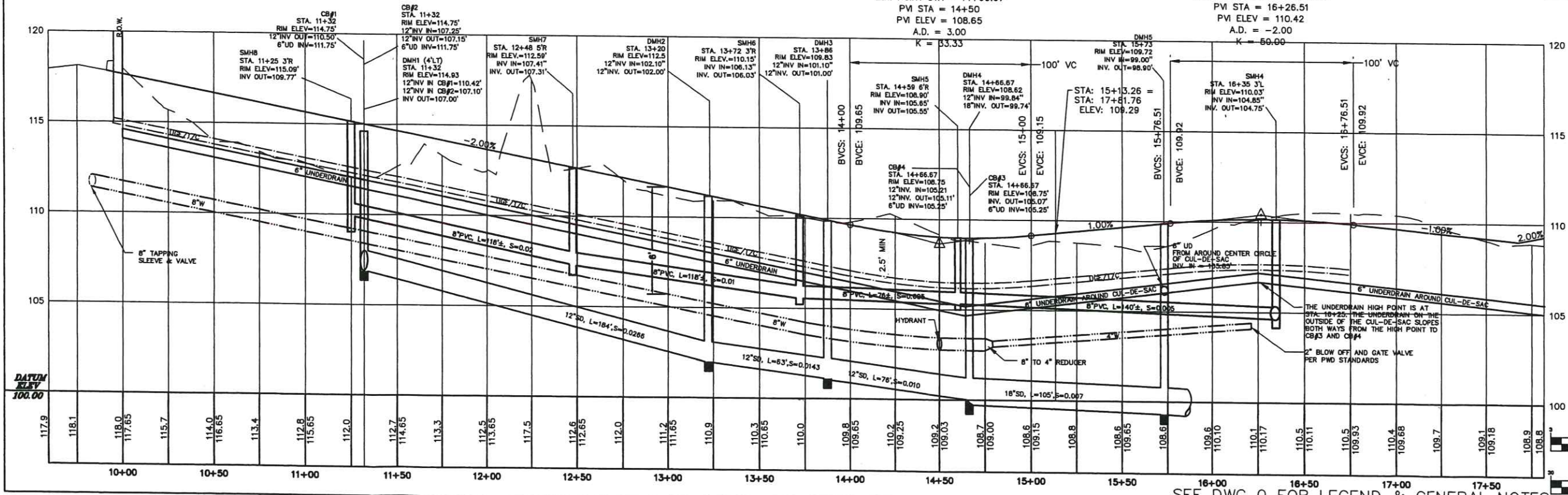


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LOW POINT ELEV = 108.99  
LOW POINT STA = 14+66.67  
PVI STA = 14+50  
PVI ELEV = 108.65  
A.D. = 3.00  
K = 83.33

HIGH POINT ELEV = 110.17  
HIGH POINT STA = 16+26.51  
PVI STA = 16+26.51  
PVI ELEV = 110.42  
A.D. = -2.00  
K = 50.00



SEE DWG 0 FOR LEGEND & GENERAL NOTES



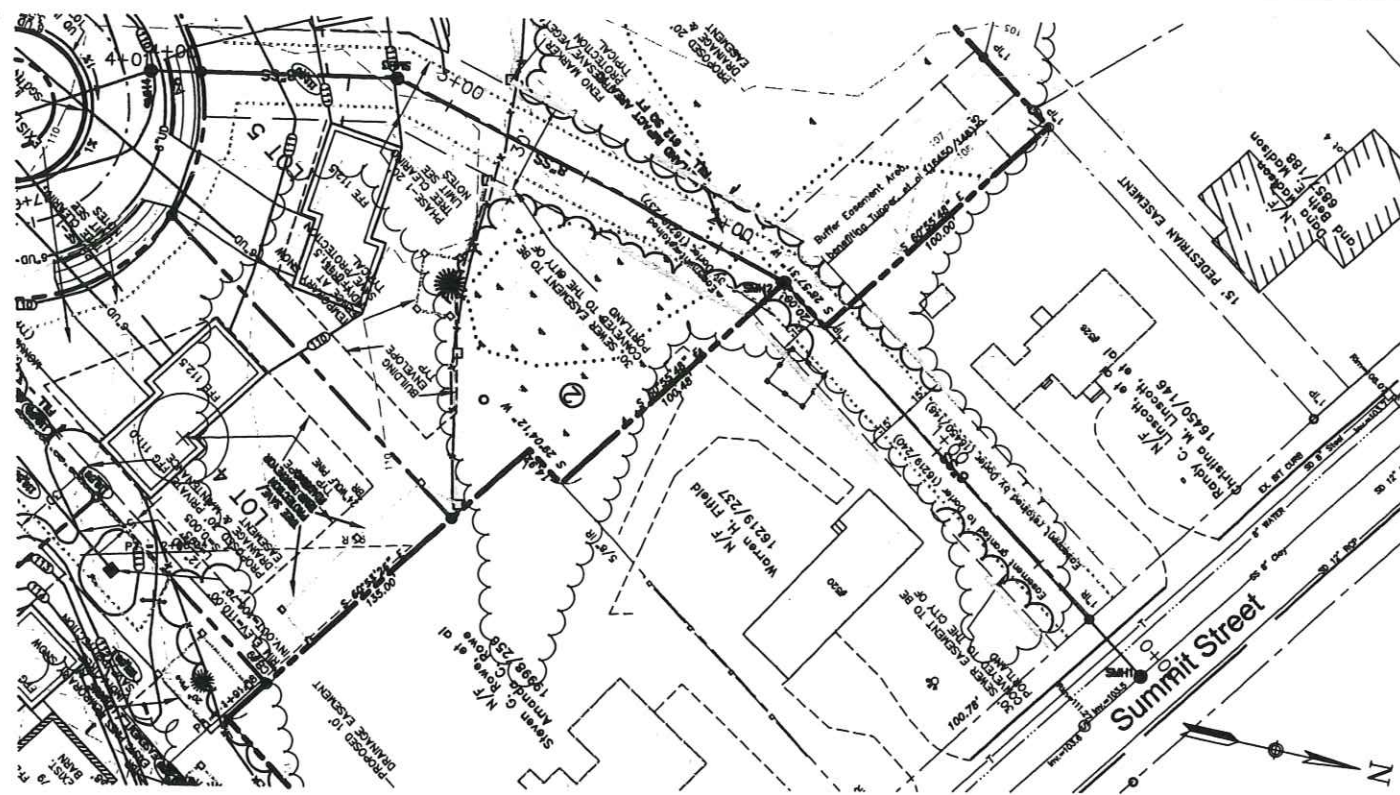
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REVISED PER ENG/STAFF REVIEW COMMENTS	03-31-08

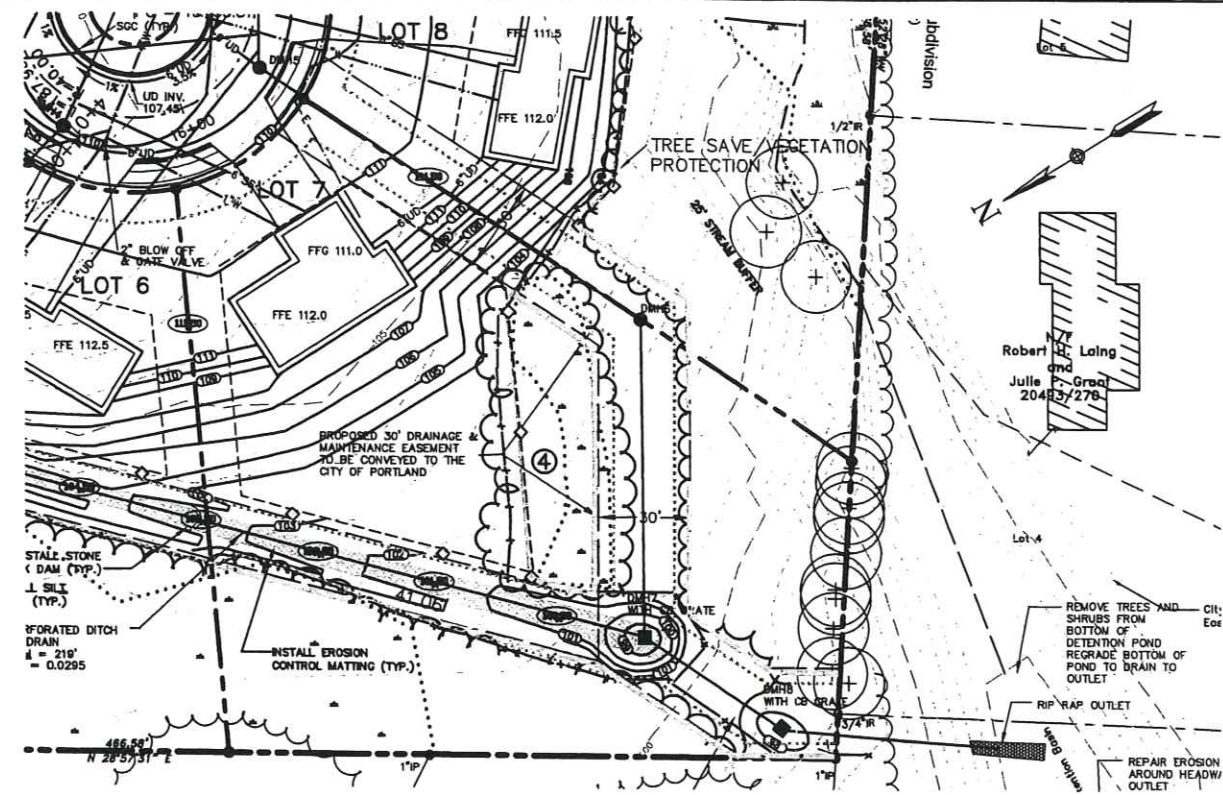
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Drawn PJP  
Checked LDM  
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Date 05-07-07

**MORNINGSTAR LANE  
PLAN & PROFILE**

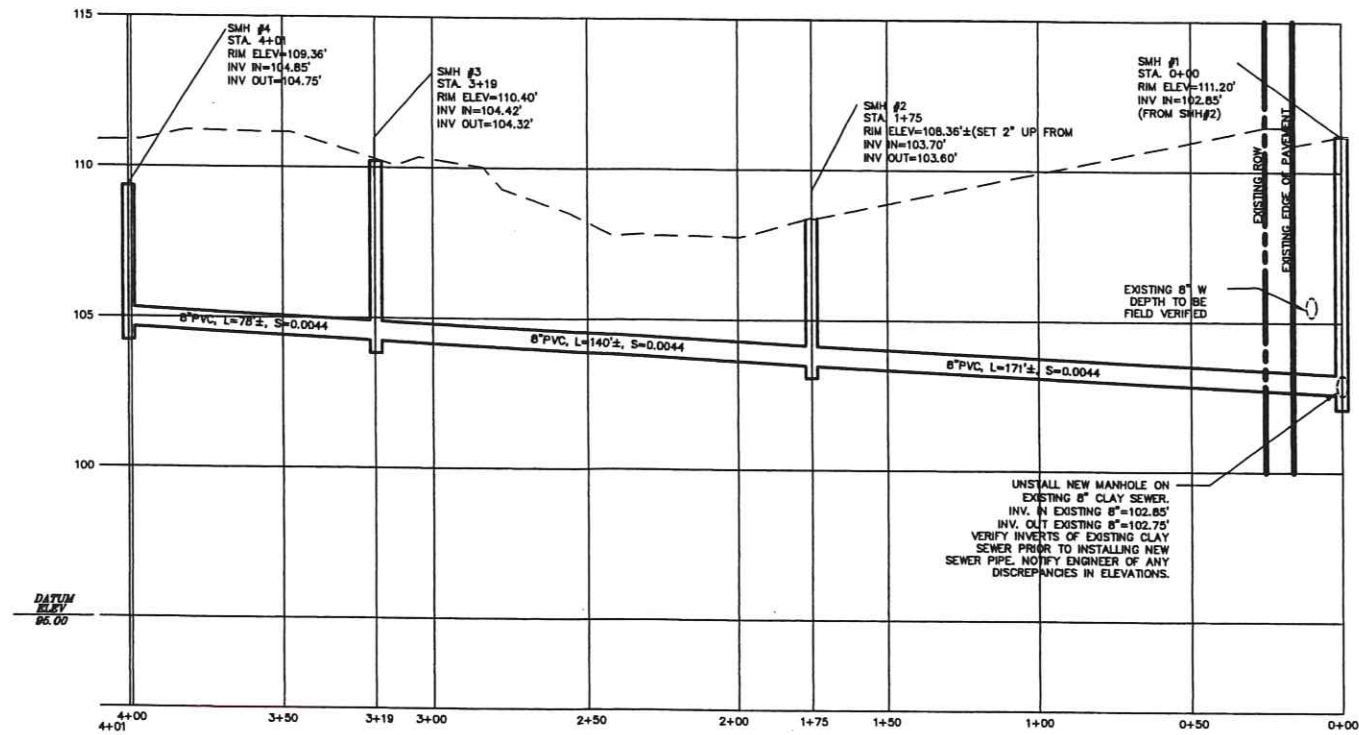
Job No. 210800008  
Drawing



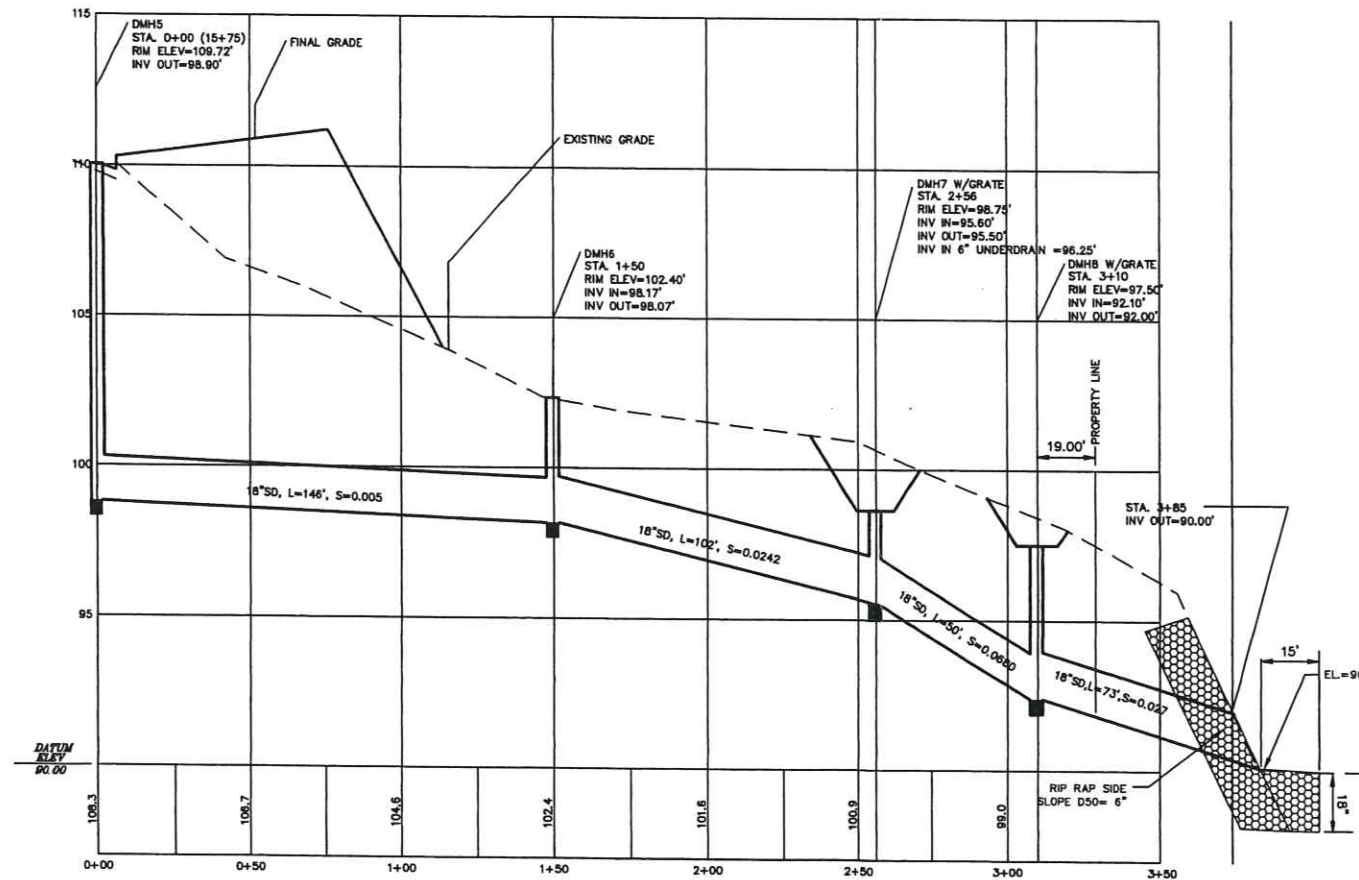
SANITARY SEWER PLAN WITHIN EASEMENT SUMMIT STREET TO CUL-DE-SAC



STORM DRAIN PLAN DMH5 TO CB#7

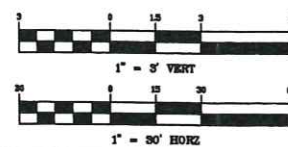


SANITARY SEWER PROFILE WITHIN EASEMENT SUMMIT STREET TO CUL-DE-SAC



STORM DRAIN PROFILE DMH5 TO CB#7

GRAPHIC SCALES



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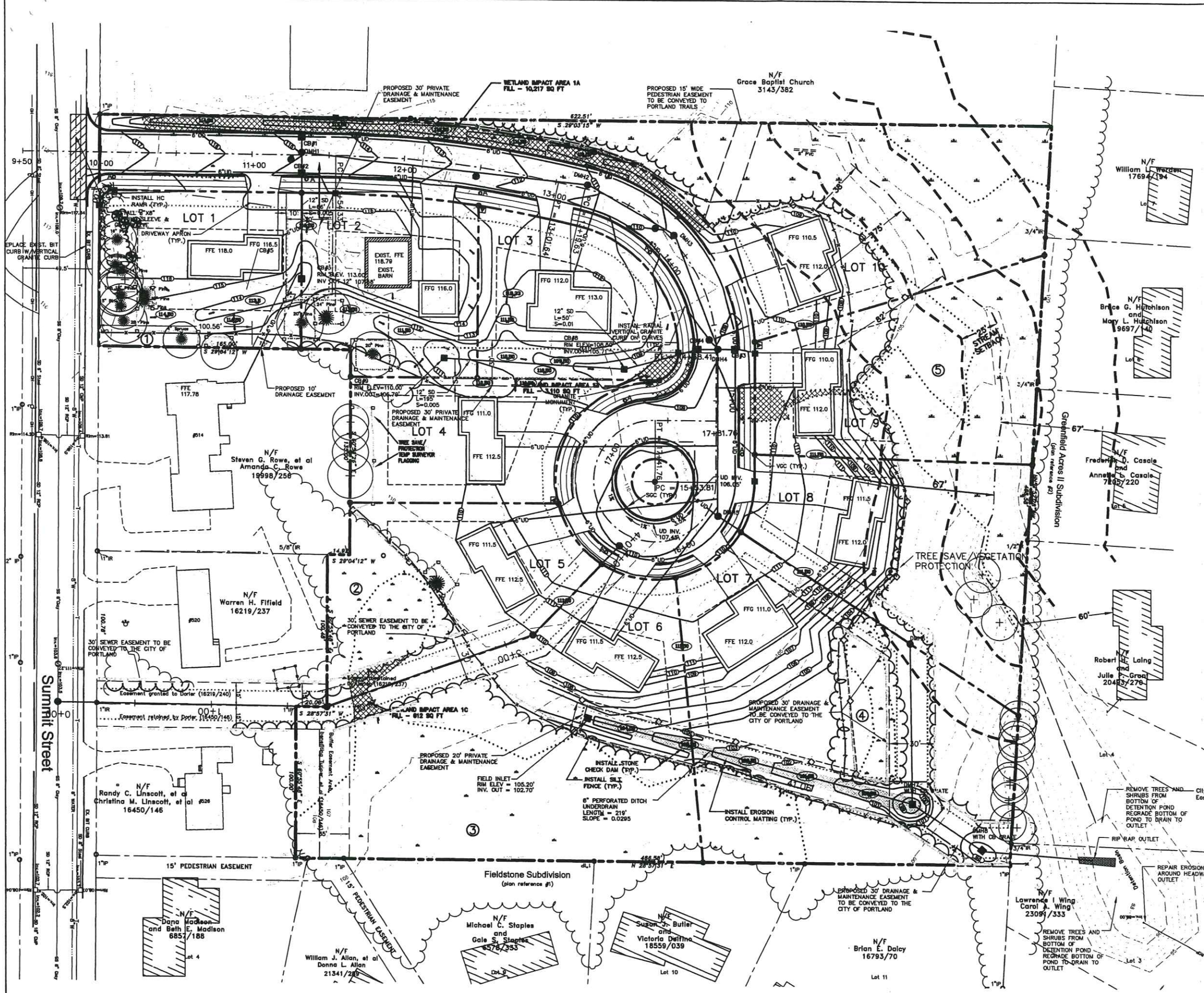
MORNINGSTAR LANE  
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Designed LDM	Drawn PJP	Checked LDM	Scale	Date
			1" = 30'	05-07-07

XC SEWER  
PLAN & PROFILE

Job No. 21080008  
Drawing



**WETLAND IMPACT SUMMARY**

LOCATION	IMPACT AREA (SQ. FT.)
1-A	10,217
1-B	3,110
1-C	612
<b>TOTAL</b>	<b>13,939</b>

**UNDISTURBED AREA SUMMARY**

LOCATION	AREA (SQ. FT.)
①	2,546
②	6,478
③	30,670
④	3,369
⑤	49,766
<b>TOTAL UNDISTURBED</b>	<b>92,829 SQ FT</b>
<b>TOTAL AREA</b>	<b>247,334 SQ FT</b>
<b>PERCENT UNDISTURBED</b>	<b>=38%</b>

**LOT 10**

DISTURBED AREA	TOTAL LOT AREA
6,886 SQ FT	28,717 SQ FT
<b>PERCENT UNDISTURBED</b>	<b>=76%</b>

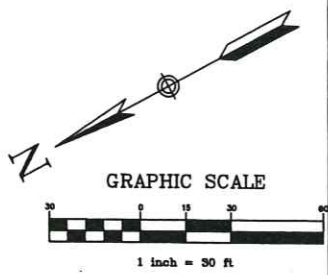
**NOTES:**

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- CONTRACTOR TO PROVIDE DRIVE APRONS TO ROW LINE.
- ALL CURBING RADIUS <100' SHALL BE RADIAL CUT PER PLAN DIMENSIONS.
- SEE PLAT PLAN FOR TREE SAVE/ PROTECTION NOTES.
- UTILITY STUD LOCATIONS ARE CONCEPTUAL ONLY. FINAL LOCATION TO BE DETERMINED IN FIELD.

**DEP TIER 1 APPROVAL SPECIAL CONDITION:**

PRIOR TO THE START OF CONSTRUCTION ON INDIVIDUAL LOTS, THE STREAM BUFFERS, AS DESIGNATED BY THE PROPOSED TREE LINE ON LOTS 8, 9 AND 10, AND THE WETLANDS ON LOTS 5, 6 AND 7, AS SHOWN ON DRAWING 4 "LOT GRADING, DRAINAGE & EROSION PLAN" DATED 3-31-08 OF THE PLANS REFERRED TO IN PARAGRAPH 11 ABOVE, SHALL BE PERMANENTLY MARKED ON THE GROUND. IN ADDITION, THE DEEDS FOR LOTS 5 THROUGH 10 MUST HAVE ATTACHED TO THEM A PLOT PLAN FOR THE LOT, DRAWN TO SCALE, THAT SPECIFIES THE LOCATION OF THE STREAM BUFFER OR WETLAND ON THAT LOT. THE WETLANDS AND STREAM BUFFERS SHALL REMAIN IN THEIR NATURAL STATE EXCEPT THAT LEANING TREES THAT THREATEN STRUCTURES MAY BE REMOVED. DEPARTMENT APPROVAL SHALL BE OBTAINED PRIOR TO ANY ADDITIONAL WETLAND ALTERATIONS ON THE PROJECT SITE.

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 Portland, ME U.S.A.  
 04101-3900  
 Tel. 207.775.4344  
 Fax. 207.775.6434



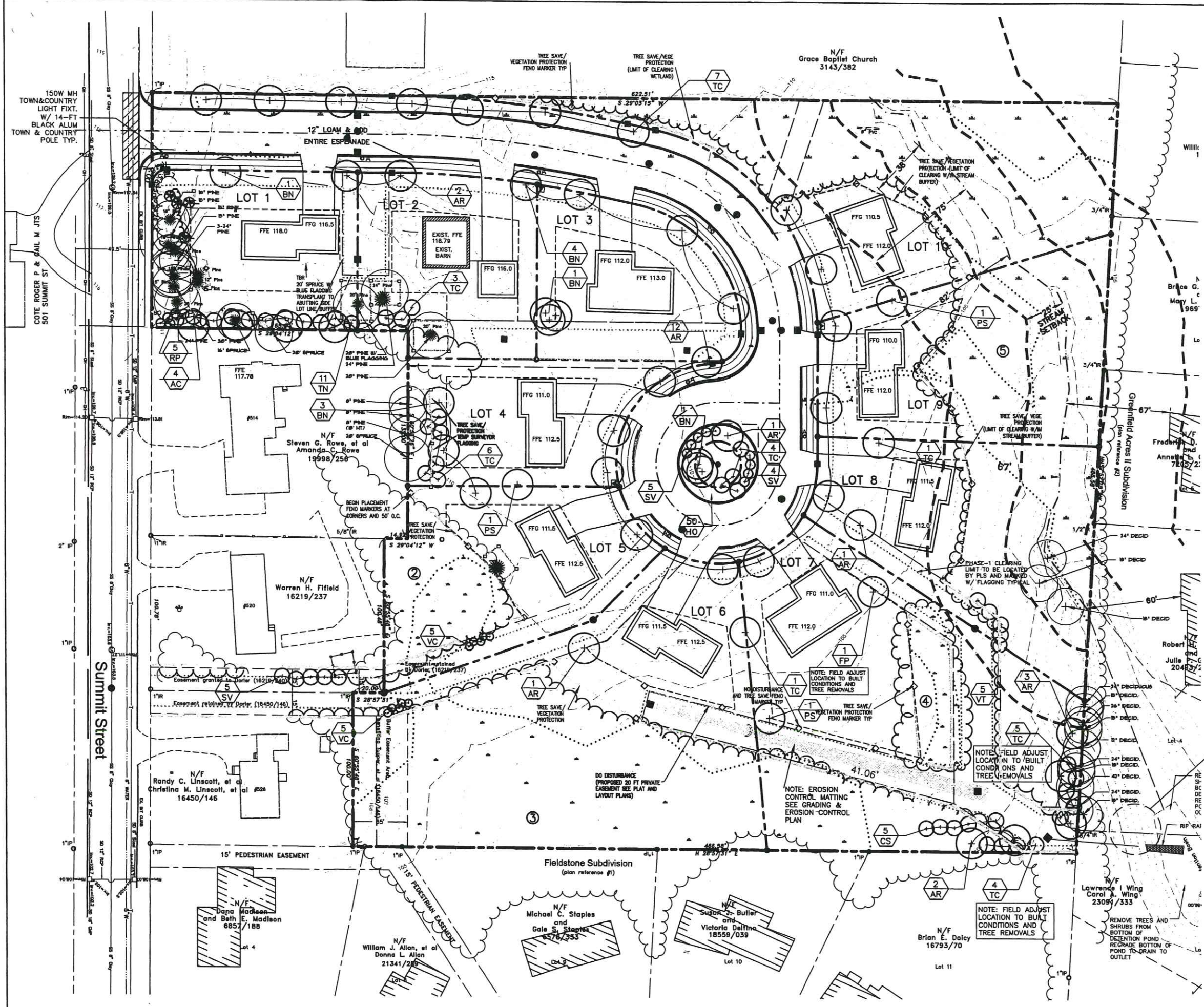
**MORNINGSTAR LANE**  
 SUMMIT STREET, PORTLAND, MAINE  
 PREPARED FOR:  
 MORNINGSTAR REAL ESTATE TRUST  
 9 CRAIGIE STREET  
 PORTLAND, MAINE 04102

Date	Revision
8-18-08	REVISED PER ENG/STAFF REVIEW COMMENTS
8-22-08	REV. PER B.21/08L STAFF REVIEW COMMENTS
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03-21-08	REVISED PER ENG/STAFF REVIEW COMMENTS

Designed LDM	Drawn PJP	Checked LDM	Scale	Date
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**LOT GRADING, DRAINAGE & EROSION CONTROLS**

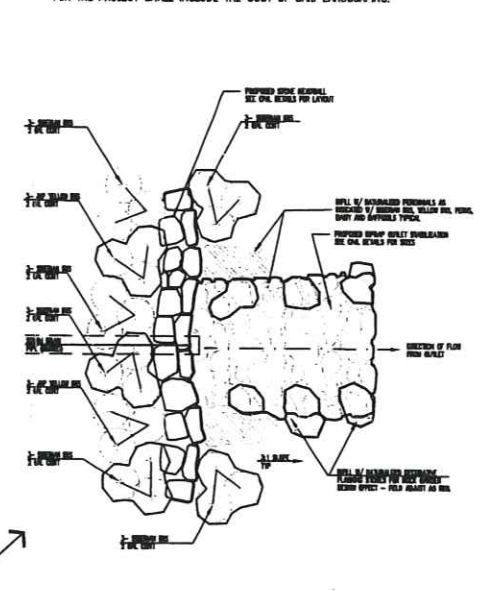
Job No. 21080008  
 Drawing



### PLANT LIST

KEY #	BOTANICAL NAME	COMMON NAME	SIZE	METHOD
<b>TREES</b>				
BN	BETULA NIGRA	RIVER BIRCH - CLUMP 3 TRUNK	2-2.5" CAL	B&B
AR	AMELANCHIER CANADENSIS	NATIVE SHADBLOW	5-6' HT CLUMP	B&B
FP	FRAXINUS PENNSYLVANICA	MARSHALL'S SEEDLESS ASH	2.5-3" CAL	B&B
TC	TRILIA CANADENSIS	CANADIAN HEALOCK	5-6' HT	B&B
PS	PRUNUS STROBUS	E. WHITE PINE	5-6" HT	B&B
TN	TRILIA NIGRA	DARK AMER ARBORVITAE	5-6" HT	B&B
<b>SHRUBS</b>				
SV	SYRINGA VULGARIS	COMMON LILAC (MIXED COLORS)	3-4' HT	B&B
CS	CORNUS SERICEA VAR	RED TWIGGED DOGWOOD	4' HT	B&B
VT	VIORUM TORRENT MARSHI	WAXY DOUBLETREE VIL	4-5' HT	CONT.
RP	RHOXODORON 'LAL'	FAJ RHOXODORON	2-2.5" SPR	CONT.
VA	VACCINIUM CORYMBOSUM	HOBUSH BLUEBERRY	2-2.5" HT	CONT.
<b>PERENNIALS</b>				
HO	HIBISCUS	DAYLILY (MIXED COLORS)	1 GAL.	POTS

- NOTES:**
- VERIFY SCHEDULE W/ PLANTING PLAN. IF CONFLICTS, PROVIDE HIGHER KEY NUMBER TO PLANT NAME.
  - LANDSCAPE CONTRACTOR TO CONSTRUCT PLANT BED AROUND AND UNDER ALL SHRUB PLANTINGS. PROVIDE 4 INCH DEEP BARK MULCH BED WITH CURVILINEAR SHAPE TO OUTSIDE LIMIT OF BRANCHING.
  - REFER TO DETAIL SHEETS FOR FOR PLANT MATERIAL INSTALLATION.
  - TREE CALIPERS ARE MEASURED AS FOLLOWS:  
 4" OR LESS = MEASURE AT 4" ABOVE GROUND  
 GREATER THAN 4" = MEASURE 12" ABOVE GROUND
- LANDSCAPE NOTES:**
- SEE DRAWING 1, EXISTING CONDITIONS & REMOVALS "TREE SAVE & VEGETATION PROTECTION NOTES"
  - AFTER COMPLETION OF ROAD CONSTRUCTION, APPLICANT SHALL OBTAIN THE SERVICES OF A LICENSED NURSERY TO RECOMMEND MEASURES FOR APPLICANT TO TAKE TO ENHANCE TREE SURVIVAL IN THE TREE SAVE/PROTECTION AREAS.
  - PRIOR TO ANY SITE WORK, TREE CLEARING OR CONSTRUCTION, ALL TREE SAVE AREAS SHALL BE DELINEATED DURING THE CONSTRUCTION AS FOLLOWS (ALSO SEE DETAIL 12 ON SHEET 9 TREE PROTECTION):  
 - WHYL SNOW FENCE SHALL BE INSTALLED AROUND SINGLE TREE SAVES;  
 - SURVEYOR'S FLAGGING AND STAKING SHALL BE PLACED AROUND GROUPS OF TREE SAVE AREAS TO PROTECT ROOTS FROM CONSTRUCTION DISTURBANCES.  
 - SURVEYOR'S FLAGGING AND STAKING SHALL BE PLACED ALONG PHASE-1 LIMIT OF CLEARING. THESE SHALL REMAIN IN PLACE DURING THE CONSTRUCTION PHASE.
  - CONSERVATION/ FIELD SEED MIXES INDIGENOUS TO THE MAINE REGION SHALL BE USED IN ALL AREAS WITHIN THE SEWER EASEMENT, THE DRAINAGE EASEMENTS AND SWALES. WITHIN HOUSE LOTS, OUTSIDE OF THESE EASEMENT AREAS AND WITHIN ESPLANADES, HOMEOWNERS WILL USE THEIR OWN SEED MIXES.
  - ENHANCEMENT/ REPLACEMENT PLANTINGS ARE SHOWN ON THE LANDSCAPING AND LIGHTING PLAN. THEY INCLUDE DECIDUOUS, EVERGREEN TREES (HEALOCK AND PINE 5-6 FT HT) AND SHRUBS INCLUDING HIGH BUSH BLUEBERRY, VIBURNUM AND L.L.C. THE PERFORMANCE GUARANTEE FOR THE PROJECT SHALL INCLUDE THE COST OF SAID LANDSCAPING.



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GRAPHIC SCALE  
1 inch = 30 ft

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22 Free Street, Suite 205  
Portland, ME U.S.A.  
04101-3900  
Tel. 207.775.3211  
Fax. 207.775.6434

LANDSCAPE ARCHITECT  
THOMAS N. THOMAS  
No. 103  
REG. S. 12001  
STATE OF ME

**MORNINGSTAR LANE**  
SUMMIT STREET, PORTLAND, MAINE  
PREPARED FOR:  
**MORNINGSTAR REAL ESTATE TRUST**  
9 CRAIGIE STREET  
PORTLAND, MAINE 04102

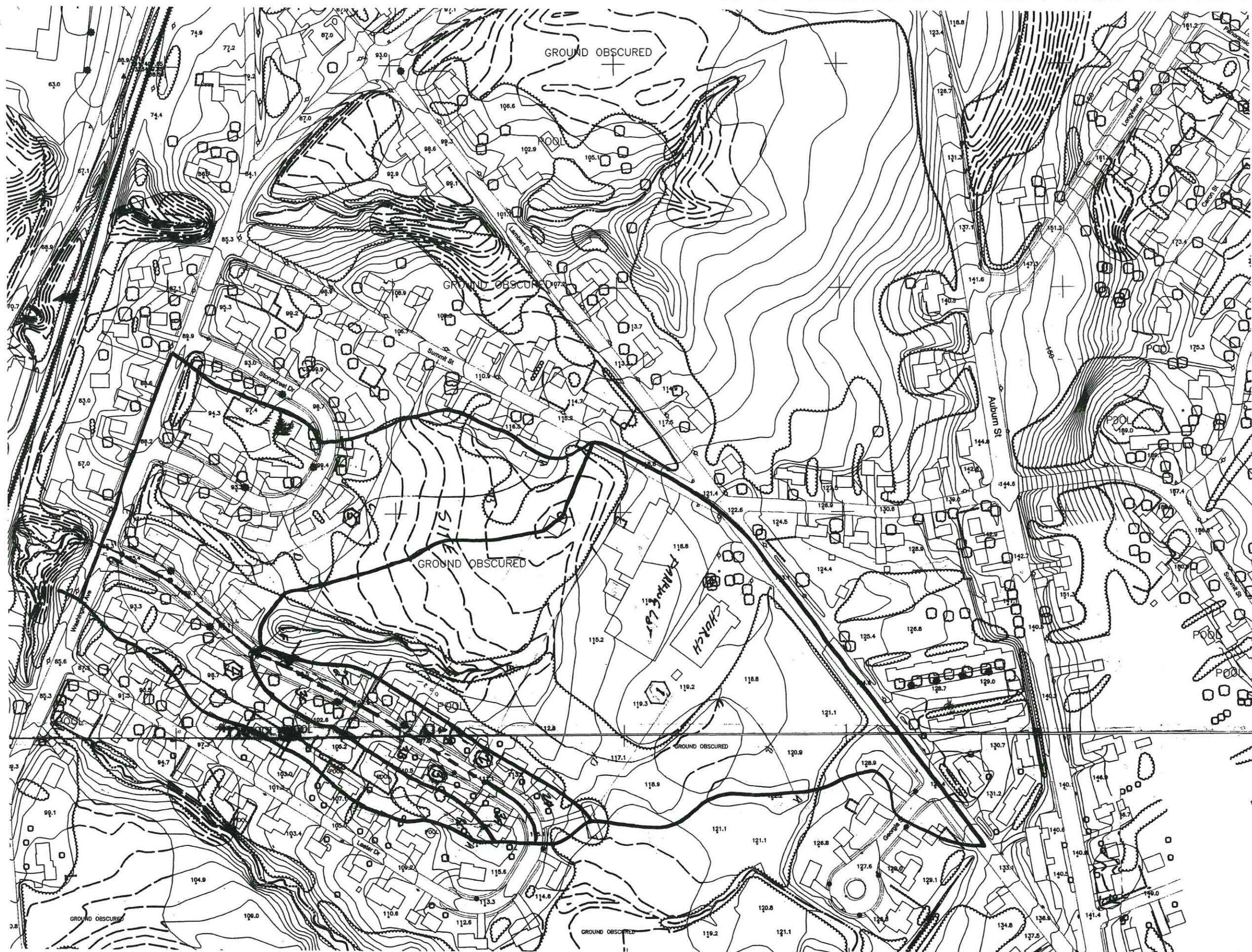
Revision	Date
REVISED PER ENG/STAFF REVIEW COMMENTS	8-18-04
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REVISED PER ENG/STAFF REVIEW COMMENTS	03-21-08
REVISED PER ENG/STAFF REVIEW COMMENTS	03-31-08

**LANDSCAPING & LIGHTING**

Job No. 21080008  
Drawing  
**5**

SEE DWG 0 FOR LEGEND & GENERAL NOTES.





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**Slater**

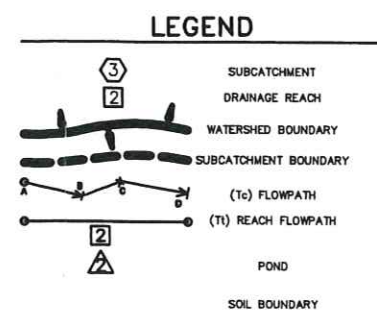
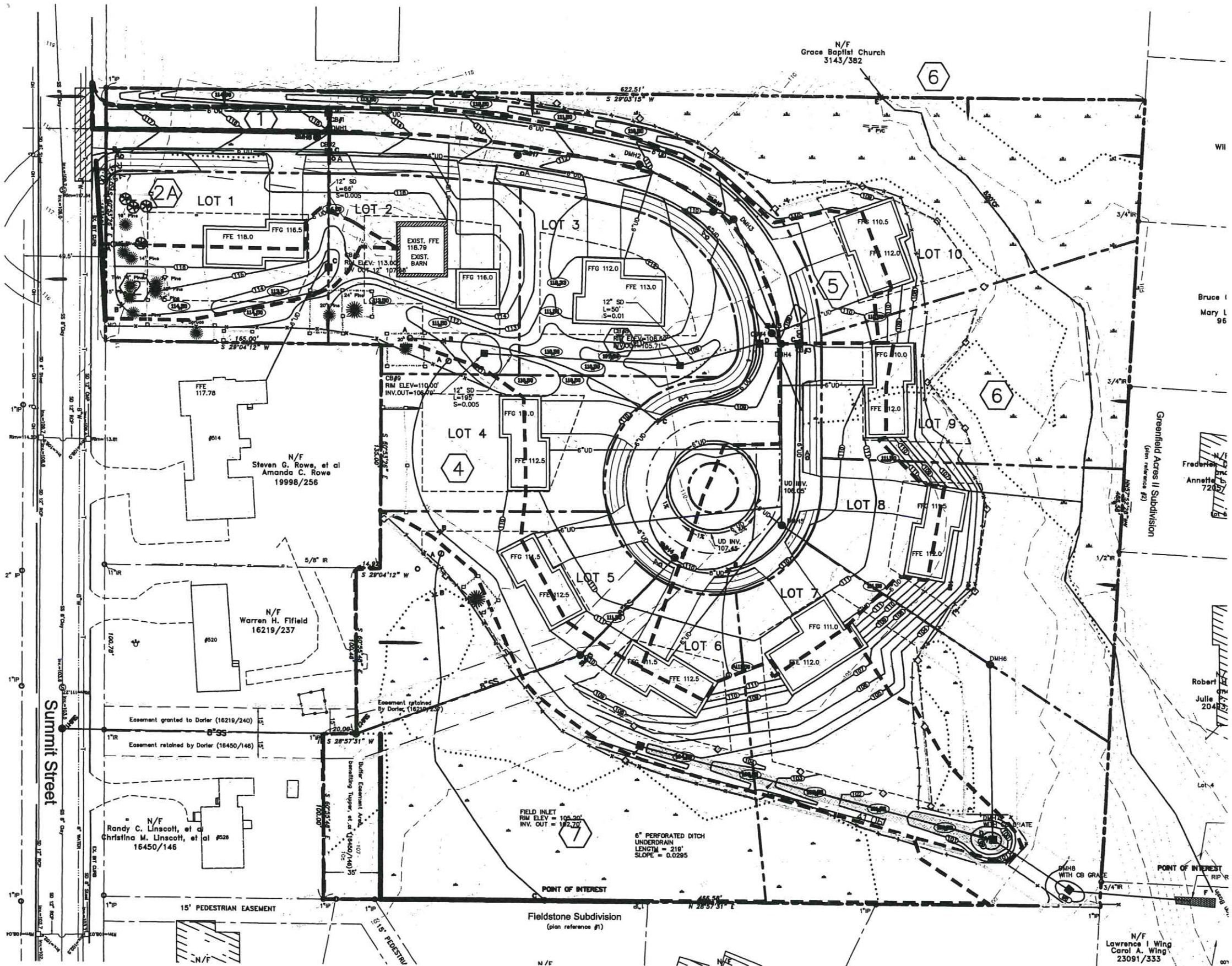
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PORTLAND, MAINE 04102

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REVISED PER ENG/STAFF REVIEW COMMENTS	05-21-08

Designed LDM  
Drawn MEH  
Checked LDM  
Scale 1"=100'(APPROX.)  
Date 05-07-07

**PRE-DEVELOPMENT  
DRAINAGE**

Job No. 210800008  
Drawing



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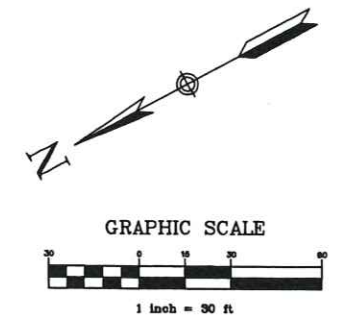
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Designed LDM	
Drawn PJP	
Checked LDM	
Scale 1" = 30'	
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**POST-DEVELOPMENT DRAINAGE**

Job No. 21080008  
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EROSION AND SEDIMENTATION CONTROL PLAN  
MORNINGSTAR LANE  
SUMMIT STREET  
PORTLAND/MAINE

The following plan has been developed to provide a strategy for controlling sedimentation and erosion from this project during and after construction of driveway, buildings, utilities, ponds, landscaping and other site work and improvements. This plan is based upon sound conservation practices such as those outlined in the "Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices" manual by the Cumberland County Soil and Water Conservation District, and the Maine Department of Environmental Protection, dated March, 2003. It is not the intent of this document to supersede project Specifications, Drawings or other Contract Documents issued for this project which the Contractor shall also be responsible for. Please refer to these sources and the Erosion Control Drawings and Details included within the Drawing Set for more detailed information.

1.00 INTRODUCTION

Morningstar Real Estate Trust is proposing a new lot subdivision on 5.7 +/- acres off Summit Street in Portland, Maine. The project will include approximately 780 feet of roadway ending in a cul-de-sac; underground utilities including municipal sewer and water, electrical, gas, and a storm drain system will also be provided. The project will also include construction of a stormwater collection system. The location of the facility is shown on the USGS quadrangle map in Figure 1. Stantec has also prepared Drawings and Specifications and Stormwater Management Report for this project. The accompanying Drawings for Morningstar Lane illustrate in detail the project scope, locations and methods of erosion control practices and measures required for this project. A detailed description of the project is included in the Stormwater Management Report.

1.01 Stormwater Management Measures - Additional measures may be required to protect existing and new stormwater conveyance or management systems. It is also very important to protect new and existing ditches, culverts and storm sewers with special measures such as check dams, drop inlet sediment basins, sediment traps or similar measures to prevent sediment from entering conveyance systems and being transported long distances to off-site locations.

1.02 Additional Permits - All work requiring additional permits, including local permits from town or municipalities, shall be performed in accordance with all applicable standards therein.

2.00 CONSTRUCTION CALENDAR

2.01 General - Construction of the project is expected to begin immediately after obtaining all approvals and permits. It is likely that the construction will begin in the spring of 2008. However, unanticipated delays, scheduling problems or weather conditions may significantly alter these dates. The Contractor should give special attention to the sections pertaining to fall and winter construction as well as to sensitive areas and requirements for temporary seeding, dormant seeding and mulching.

2.02 Definitions - The following definitions are terms commonly used throughout this report.

2.02.a Seasons - The following dates define the seasons as referred to herein:

Season	Dates*
Winter	November 1 <sup>st</sup> to April 15 <sup>th</sup>
Mid-Season	March 16 <sup>th</sup> to April 30 <sup>th</sup> **
Spring	May 1 <sup>st</sup> to June 15 <sup>th</sup> **
Summer	June 16 <sup>th</sup> to September 15 <sup>th</sup> **
Fall	September 16 <sup>th</sup> to October 31 <sup>st</sup> **

\*Seasonal dates may vary according to weather. The Engineer or DEP must approve any changes in these dates.

2.02.b Critical Areas - are specific areas identified herein or as indicated on the Drawings which require special attention during construction activities, such as areas with steep slopes or channels in excess of 8%, newly graded slopes, detention/sedimentation ponds, highly erodible soils which will be exposed for more than one month or have soils exposed during late fall and winter when no vegetation can grow.

2.02.c Erosion & Sedimentation Controls are defined as the installation of all fence, hay bales, erosion control berms, rip-rap, mulching, or erosion control matting or setting, check dams, inlet protection, construction entrances, diversions, level spreaders, sedimentation ponds, temporary risers or filters, and any other temporary or permanent measures required herein.

2.02.d Clearing - includes cutting and removing of over-story vegetative cover. It does not include grubbing. Limited cutting, thinning, use of heavy equipment and other clearing restrictions may apply to sensitive areas and wetland crossings.

2.02.e Grubbing - is the removal of grass, roots and scrub required to begin rework.

2.02.f Interim Period - a period of time that an unvegetated area sits without, awaiting the next phase of work.

2.02.g Earthwork - consists of the movement of soil by mechanical means including excavation, filling, grading, trenching, shaping and pond construction.

2.02.h Temporary - as used herein shall refer to the use or placement of erosion or sedimentation controls, seeding or other measures intended to be either removed, replaced, reworked, reseeded, or followed with permanent measures.

2.02.i Permanent or Final - as used herein shall refer to the use or placement of erosion or sedimentation controls, seeding or other measures which will remain through final project completion.

2.02.j Acceptance - as used herein shall mean verification by Owner and/or Engineer that the specific erosion control measure or device to be accepted is adequately constructed, performs satisfactorily as intended and is complete. Acceptance of a measure or device by Owner or Engineer shall be based upon visual observations and inspection and is not a warranty of compliance, completion, structural integrity, workmanship or other construction related or qualitative factors which may require testing or other means of certification of compliance.

2.02.k Engineer - as used herein shall mean a representative of Stantec Consulting and/or an engineer, representative or inspector designated by DEP, Architect, or person designated by Owner as the Construction Site Engineer.

2.03 Schedule of Activities - The following activities, erosion control measures, or other items are required for the construction of this project or specific measures or scheduling of activities to be conducted or restricted during the various construction seasons as herein defined above.

2.03.a Critical Areas - all work proposed in the defined critical areas may be conducted all year. However, to the extent practical, erosion control measures for defined critical areas should be installed during Summer or Fall in advance of construction, in or adjacent to critical areas, anticipated or scheduled in the winter and mid season. Certain problem areas may become "critical areas" during the course of construction. Areas observed to be experiencing significant erosion problems shall be deemed critical areas and shall be stabilized with appropriate erosion control measures immediately prior to progressing with work in these areas as directed by Engineer.

- 2.03.b Erosion & Sedimentation Controls Installation- erosion control installation may occur all year long, except that such measures shall be installed prior to commencement of disturbance activities related to each erosion control measure. However, to the extent practical, erosion control measures should be installed during summer or fall in advance of construction anticipated or scheduled in the winter and mid season. See Drawings and Details for locations and installation procedures.
- 2.03.c Clearing - clearing may occur all year long except during "mid season".
- 2.03.d Road Construction- This construction may occur in the spring, summer and fall seasons. It may be allowed in the winter season. However, the winter construction schedule must be followed.

3.00

3.01 EROSION CONTROL MEASURES

General- The construction of this project may require or incorporate the following measures or practices as needed or applicable. Such measures, where indicated on Drawings shall be implemented as shown or required herein. Additional measures not shown on Drawings may be required as specified herein or requested by the Engineer, as needed, in order to ensure the protection of resources or off-site properties.

3.01.a Straw Bales - shall be installed along the contours in the locations and as detailed on the Drawings. Straw bales may be required in addition to silt fencing or other measures in sensitive areas as shown on Drawings. Straw bales are to be embedded four inches into the existing soil and staked with ends tightly secured adjacent bales. Where staking and embedding of straw (or hay) bales is impractical due to excessive root, ledge, or other construction items, straw bale barriers may be substituted with erosion control mix berms where approved by Engineer.

3.01.b Silt Fence - shall be installed along the contours in the locations and as detailed on the Drawings. Silt fence may be required in addition to, or other locations, not indicated on Drawings, as warranted or determined by field conditions or as directed by Engineer. Silt fence may also be required in addition to straw bales or other measures in sensitive areas as shown on Drawings. Where staking and embedding fabric is impractical due to excessive root, ledge, or other construction items, silt fence may be substituted with erosion control mix berms or placement of six inches of crushed gravel along fabric flap on up slope side of fence, in lieu of burying fabric in trench/void where approved by Engineer.

3.01.c Storm Drain Inlet Protection- Temporary storm drain drop inlet or curb inlet barriers shall be used on all storm drain inlets unless otherwise indicated on Drawings to prevent sediment from entering the storm drain system during construction. The intent is to provide a continuous sediment filter across the storm drain inlet. The filter may be constructed of all fence, crushed stone, gravel, concrete blocks, hay bales, geotextile or other proprietary products as detailed on the Drawings.

3.01.d Mulching - shall consist of spreading of straw (or hay) mulch over bare or disturbed areas. It shall be applied at the rates described herein, or substituted by matting where necessary or as specified herein. Alternate mulch materials or methods such as hydroseeding may be used only when approved by the Engineer. Mulching shall be substituted with matting in locations where it has proven to be ineffective in the field. Mulching rates shall be doubled where requested by Engineer based on observations in the field or in locations undergoing winter construction.

3.01.e Matting - shall consist of straw, coconut or excelsior matting between photodegradable netting. Matting may be substituted with sod where desired. Netting over straw mulch may be substituted for matting only when approved by Engineer/matting shall be used as follows:

3.01.e.i Where indicated on Drawings.

3.01.e.ii In the base of swales with less than 5% pitch. High velocity ditch lining or geotextile soft armor may be required in steep ditches (> 5%) or areas receiving significant concentrated flows.

3.01.e.iii On steep slopes where rilling may occur or where matting has proven to be ineffective in the field.

3.01.e.iv Where straw mulch has been determined to be ineffective based on observations made in the field or as directed by the Engineer.

3.01.f Rip-rap - shall be used in swales, steep slopes, pond spillways and outlets, etc. as shown on Drawings to protect soils from excessive flow velocities. It shall be of the size and depths specified on the Drawings. A minimum rip-rap size of D<sub>50</sub> = 6 inches shall be used if not otherwise indicated on Drawings. Rip rap may be required at locations where revegetation matting, high velocity ditch lining or soft armor is proven to be ineffective in the field as directed by Engineer.

3.01.g Flared End Sections - shall be installed on the inlets and outlets of culverts, field inlets and storm drain outlets where indicated on Drawings. Rip-rap inlet or outlet protection may be required in addition to flared end sections in locations where indicated on Drawings and in locations where flared end sections have proven to be ineffective in the field as directed by Engineer.

3.01.h Outlet Protection- Rip-rap outlets (springs or plunge pools) shall be provided in locations where indicated on Drawings and Details, and in locations where flared end sections have proven to be inadequate to prevent scouring at the pipe outlet in the Field, as directed by Engineer. The rip-rap shall be the same size as that specified on the Drawings. A D<sub>50</sub> = 6 inches shall be used if not otherwise specified.

3.01.i Stone Check Dams - shall be installed in existing and proposed swales or at culvert inlets as shown on the Drawings. These check dams serve to reduce flow velocities in swales thus helping to reduce rilling. Check dams shall be constructed with a 6 inch tapered spillway at the center as shown on Details to prevent breaching and scour at the outer edges along the sides of the ditch.

3.01.j Level Lip Spreader - Unless otherwise specified or indicated on Drawings, level lip spreaders will generally consist of 30 feet long, 6 inch to 12 inch deep, stone lined ponded areas discharging over level berms through a well vegetated buffer area. These spreaders will function to disperse chemicals that flow into shallow sheet flow. Construction and length of level lip spreaders shall be as detailed on the Drawings.

3.01.k Construction Entrance A crushed stone/stabilized construction entrance will be installed whenever construction traffic will enter the public road system. The size, type and locations of these shall be as shown and detailed in the Drawings. Entrances shall be constructed with a 6-inch minimum layer of 2 inch crushed stone. Stone entrance shall be placed on geotextile fabric and shall include a 10-foot x 10-foot taper on both sides of the entrance to allow for turning vehicles.

- 3.01.l Dust Control- Contractor shall take necessary steps to prevent blowing and airborne movement of dust from exposed soil surfaces. Maintaining natural or temporary vegetation and/or mulching shall be used where practical. Mechanical measures or washing of pavement shall be used where necessary to prevent and remove dust buildup on paved surfaces. All exposed soil surfaces shall be maintained to minimize dust by periodically misting bare areas with adequate water to prevent dust. Calcium Chloride solution spray should be used in areas experiencing significant dust problems and to reduce frequency of watering. Repetitive treatments shall be applied as necessary to accomplish adequate dust control.
- 3.01.m Housekeeping Notes
  - 1. Controls must be in place to prevent pollutants from being discharged from materials and equipment on site. Appropriate spill prevention, containment and response planning must be in place.
  - 2. Protect groundwater from liquid petroleum products and other hazardous material. These materials may not be landed or stored in areas draining to an infiltration area.
  - 3. Control dust and erosion of soils during and after construction. Oil may not be used for dust control.
  - 4. Keep site clean and orderly. Remove litter, construction materials and chemicals.

4.00 EROSION CONTROL EXECUTION

4.01 General Construction Phase- The following general practices will be used to prevent erosion during construction of this project. Refer to Drawings and Details for applications, locations and installation methods. If Contractor is unclear regarding the use, location, installation, intended performance or maintenance of any prescribed erosion control measures, Contractor shall refer to the "Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices" (BMP) Manual for detailed procedures or contact Engineer for assistance.

NOTE: Locations of silt fence/hay-bale barriers are shown on Drawings for general purposes only to indicate the intent. Final locations shall be modified based on actual field conditions and as site conditions warrant. Such field changes or modifications shall be approved by the Engineer.

4.01.a Following clearing only those areas under active construction shall be left in an unseeded or unvegetated condition.

4.01.b Erosion Control Installation- Prior to the start of construction, silt fence, haybales, erosion control mix berms, stabilized construction entrances, stone check dams, inlet protection, or other appropriate measures, shall be installed adjacent to construction areas, around catch basins, at the toe of slopes and areas as shown on Drawings, or as otherwise required to protect against any erosion on Drawings, or as otherwise required to protect against any erosion on Drawings. Immediately following construction of culverts and swales, stone check dams, ditch linings, etc. shall be installed, as shown on the Drawings.

4.01.c Topsoil will be stockpiled on-site when necessary in areas that have minimum potential for erosion, such as flat slopes or on-site borrow pits, and will be kept as far as possible from existing drainage areas. All stockpiles expected to remain longer than 15 days shall be:

4.01.c.i Enclosed with haybales or silt fence at the down gradient sides of the stockpile.

4.01.c.ii Mulched with a second application of hay mulch and anchored with biodegradable netting if expected to remain over winter or beyond October 1<sup>st</sup>.

4.01.d Temporary Seeding and Mulching Schedule- During construction, all disturbed areas shall adhere to the schedule specified in TABLE 1 and SEEDING SCHEDULE below: (Note: Refer to Section 4.02 Permanent Seeding and Mulching Plan for permanent seeding and mulching requirements.)

4.01.d.i The Contractor shall be responsible for monitoring daily weather reports when working in the identified sensitive areas and for monitoring weekly reports in other areas. Contractor shall adjust the work schedule in anticipation of rains and shall stabilize the site as indicated or required.

4.01.d.ii All completed areas that have been seeded and/or finished shall be permanently revegetated in accordance with Section 4.02 Permanent Seeding and Mulching Plan.

4.01.d.iii Temporary mulching and/or seeding shall commence immediately following initial fine grading of any area expected to remain bare for an interim period of more than 15 days (7 days for sensitive and critical areas). Stabilization or seeding requirements shall be determined in accordance with TABLE 1 and shall be implemented at the beginning of the expected interim period. In no case shall any bare areas remain unseeded for more than 15 days (7 days for sensitive and critical areas).

4.01.d.iv Interim periods for sensitive and critical areas are indicated in TABLE 1. However, exposed or bare soil in these areas shall be mulched at the completion of work, each day, if significant rainfall is predicted or imminent.

4.01.d.v Mulch application rate shall be doubled during winter construction. Field conditions where mulch should be applied at 2x rates are indicated on Drawings for areas that have been fine graded or if snow is predicted or imminent. In no case shall any areas be left bare for more than 7 days.

4.01.d.vi Permanent seeding shall not be attempted during the fall or winter seasons (after September 1<sup>st</sup>) unless otherwise approved by Engineer. Should seeding be approved by Engineer during winter season, the Contractor shall follow procedures for dormant seeding. Refer to Section 4.02 Permanent Seeding and Mulching Plan for dormant seeding requirements. However, vegetation shall be inspected and reseeded by Contractor as necessary in the following spring (April 1<sup>st</sup>) to ensure good vegetative cover. Acceptance of dormant seeding shall not occur until after May 1, in the following Spring.

4.01.d.vii Temporary seeding and mulch shall be inspected and maintained or replaced weekly. At a minimum, 75% of the soil surface should be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.). Mulch shall be reapplied as necessary to completely cover soil.

4.01.d.viii Temporary seeding and mulch shall be inspected and maintained or replaced weekly. At a minimum, 75% of the soil surface should be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.). Mulch shall be reapplied as necessary to completely cover soil.

4.01.d.ix Fertilizing, seeding and mulching shall be done on loam the same day the loam is spread. Winter mulch rates shall apply as specified in the temporary seeding and mulching schedule.

4.01.d.x On slopes greater than 3:1, straw matting or excelsior matting will be substituted for mulch, except that biodegradable netting over mulch may be used where approved by the Engineer.

4.01.e Inspection- Following final seeding, the site will be inspected every 30 days until 80% cover has been established. Reseeding and mulching shall be carried out in areas where inadequate catch is observed until adequate growth is established in all seeded areas, as agreed upon by the Engineer. The Contractor may be required to reseed during the following spring subsequent to winter or fall construction and seeding in order to provide 80% vegetative cover as required for Acceptance by Owner.

TABLE 1  
TEMPORARY SEEDING SCHEDULE

Seed	Seeding Rate (lbs/1000 sq. ft.)		Recommended Seeding Dates
	Seeding Rate	Seeding Depth (inches)	
Annual Rye Grass	0.9	1/4	4/1 to 7/1
Sudan Grass	0.9	1/4	7/1 to 8/15
Perennial Rye	1.8	1/4	8/15 to 9/15
Grass			
Winter Rye Grass	2.6	1	9/15 to 10/15
Dormant Seeding	3.5	1	10/15 to 3/31
50% Winter Rye	(2.6)		
50% Annual Rye	(0.9)		

4.01.e Grading will be held to a maximum 3:1 slope where practical. Greater slopes may be used in edge cut. All final graded areas shall be stabilized with permanent seeding and mulching immediately after final grading is complete. If final grading will not be completed immediately, areas within 5 days of the completion of work. Refer to Section 4.02 Permanent Seeding and Mulching Plan, herein. See Contract Specifications for additional, more specific, permanent seeding requirements.

- 4.01.f Construction traffic - will be directed over the stabilized construction entrances and proposed roads. Any areas subject to rutting will be stabilized immediately. The crushed stone construction entrances shall be maintained by the addition of more crushed stone as needed as the vehicle becomes filled. The public roadway shall be swept daily should mud be tracked onto site.
- 4.01.g Winter Construction- For any work proposed during the winter season, the Contractor shall adhere to the following practices:
  - 4.01.g.i A plan and schedule of activities shall be submitted to the Engineer and approved prior to any work being done.
  - 4.01.g.ii The interim period for any exposed area shall be limited to 7 calendar days.
  - 4.01.g.iii The Contractor may not expose or disturb more than 3 acres at any one time on the site. Contractor may expose more than 3 acres at a time subject to approval by Engineer.
  - 4.01.g.iv Where required and approved by Engineer, installation of all fence may be modified from detail on Drawings to substitute 6 inches of clean gravel over the bottom of the silt fence in lieu of trenching and backfilling fabric.
  - 4.01.g.v Mulching and seeding rates shall adhere to the Temporary Seeding and Mulching Schedule, (Section 4.01.d). Note that all mulching rates shall be doubled as shown in TABLE 1, (Section 4.01.d.v), and shall follow the sensitive areas schedule.
  - 4.01.g.vi Permanent seedlings shall not be attempted by Contractor during winter season unless otherwise approved by Engineer.
- 4.01.h Monitoring Schedule - The Contractor shall be responsible for installing, monitoring, maintaining, repairing, replacing and/or removing all of the temporary erosion and sedimentation controls as specified herein or directed by the Engineer, or shall appoint a qualified subcontractor to do so, as follows:
  - 4.01.h.i Maintenance measures will be performed as needed during the entire construction cycle. After each rainfall, and prior to predicted significant rainfall events (P+1), a visual erosion controls inspection will be made by the Contractor to insure their continuing function as designed.
  - 4.01.h.ii Stone check dams, hay bale barriers, drop inlet barriers, erosion control mix berms, silt fence and mulch shall be inspected and repaired once a week or immediately following a significant rainfall. Sediment trapped behind these barriers shall be removed when it reaches a depth of 6 inches (or 1/2 the height of the dam for check dams) and redistributed to areas undergoing final grading.
  - 4.01.h.iii Water quality inlets and catch basin sumps shall be inspected and maintained at least once each day. The sediments shall be removed once it reaches a depth of 6 inches.
  - 4.01.h.iv Near completion of the construction and after the site is revegetated and stable, the Contractor shall inspect, clean, maintain, repair, rehabilitate or revegetate all ponds, drainage structures, storm drains, culverts, level spreaders and ditches prior to acceptance by the Owner.

4.01.i Permanent Seeding and Mulching Plan- The following general practices will be used to re-establish final vegetation.

- 4.02.a Loaming - A minimum of 6 inches (unless otherwise specified) of loam will be spread over the entire area and graded to a uniform depth and a natural appearance. All loam shall be as specified or approved by the Engineer.
- 4.02.b Final Seeding - All final seeding shall be completed immediately (within 7 days) following final grading. All final fertilizing and seeding shall adhere to the Specifications unless otherwise approved by the Engineer. Refer to Specification Section 02390.
- 4.02.c Mulching - All areas shall be mulched immediately after seeding. Immediately upon first signs of any evidence of significant erosion occurring, Contractor shall create and install mulch on all such areas until erosion is deemed acceptable by the Engineer.
- 4.02.c.i Straw mulch shall be applied at the rate of 2 tons per acre (90 lbs. or 2 bales/1,000sq. ft.) unless otherwise specified.
- 4.02.c.ii Hydro-mulch shall consist of a mixture of asphalt, wood fiber or paper fiber and water sprayed over a seeded area. Hydro-mulch shall not be used during the fall, winter or mid season.
- 4.02.c.iii Mulching shall be monitored according to the monitoring schedule (Section 4.01.f). Should mulching prove to be ineffective, then seeding or matting shall be used in its place.
- 4.02.d Dormant Seeding - Construction shall be planned to minimize the need for seeding during the fall, winter or mid season. Dormant seeding shall not be used unless approved by Engineer. Should seeding be necessary between these dates, the following procedure shall be followed:
  - 4.02.d.i Only uniform loam shall be used.
  - 4.02.d.ii Loaming, seeding and mulching will not be done over snow cover. If snow exists, it must be removed prior to placement of seed.
  - 4.02.d.iii No permanent seeding will be done during fall, winter or mid season unless specifically approved by the Engineer. If attempted, the normal seed application rate shall be doubled. Reseeding in spring by Contractor will be required in all areas with insufficient growth.
  - 4.02.d.iv Where temporary seeding is required, the rates specified in the Temporary Seeding and Mulching Schedule shall be adhered to.
  - 4.02.d.v Fertilizing, seeding and mulching shall be done on loam the same day the loam is spread. Winter mulch rates shall apply as specified in the temporary seeding and mulching schedule.
  - 4.02.d.vi On slopes greater than 3:1, straw matting or excelsior matting will be substituted for mulch, except that biodegradable netting over mulch may be used where approved by the Engineer.
- 4.02.e Inspection- Following final seeding, the site will be inspected every 30 days until 80% cover has been established. Reseeding and mulching shall be carried out in areas where inadequate catch is observed until adequate growth is established in all seeded areas, as agreed upon by the Engineer. The Contractor may be required to reseed during the following spring subsequent to winter or fall construction and seeding in order to provide 80% vegetative cover as required for Acceptance by Owner.

5.00 CONCLUSION

5.01 Morningstar Lane, if constructed in conformance with the project Drawings and the Erosion and Sedimentation Control Report, herein, should not result in any significant erosion or sedimentation either on or off the site.

Prepared by:

Lynwood Myhrball, PE  
Senior Associate

Stantec Consulting Services Inc.  
22 Free Street, Suite 205  
Portland, ME U.S.A.  
04101-3900  
Tel: 207.775.3211  
Fax: 207.775.6434

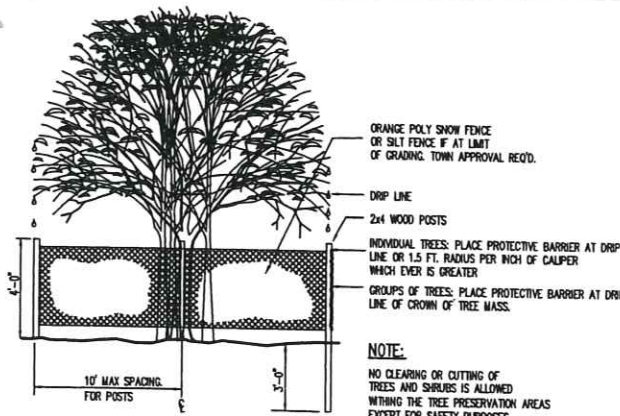


MORNINGSTAR LANE  
SUMMIT STREET, PORTLAND, MAINE  
PREPARED FOR:  
MORNINGSTAR REAL ESTATE TRUST  
9 CRAIGIE STREET  
PORTLAND, MAINE 04102

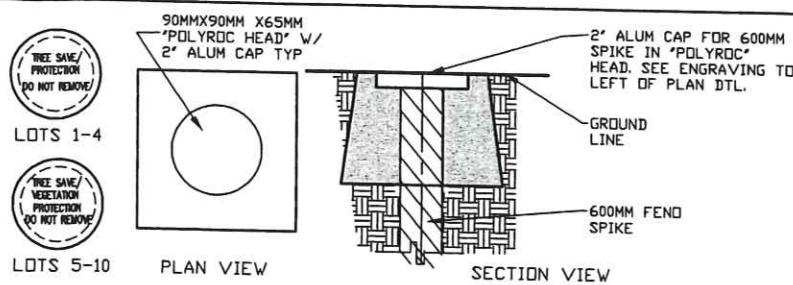
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Drawn PJP	REVISED PER ENG/STAFF REVIEW COMMENTS	8-16-09
Checked LDM	REV. PER 8/23/09 STAFF REVIEW COMMENTS	8-23-09
Scale NO SCALE	PRELIMINARY REVIEW - CITY OF PORTLAND	10-22-07
Date 05-07-07	REVISED PER ENG/STAFF REVIEW COMMENTS	11-15-07
	REVISED PER DEP COMMENTS	12-07-07
	NO REVISION THIS SHEET	12-28-07
	NO REVISION THIS SHEET	01-15-08
	NO REVISION PER ENG/STAFF REVIEW COMMENTS	02-21-08

EROSION CONTROL NOTES

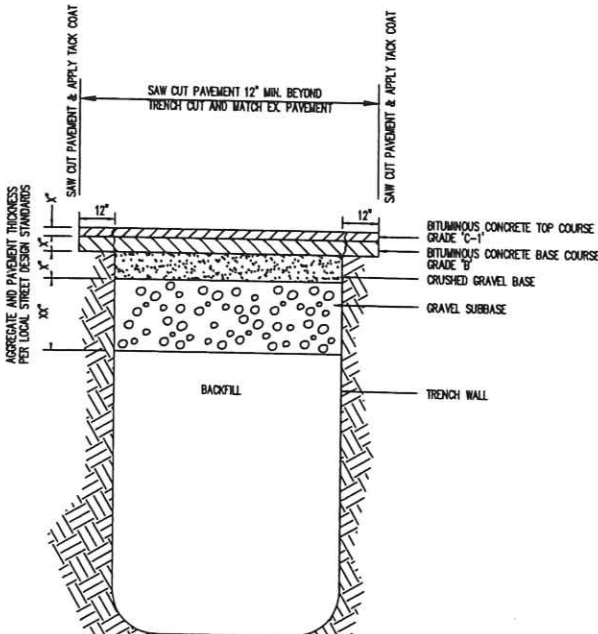
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NOT FOR CONSTRUCTION  
THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.



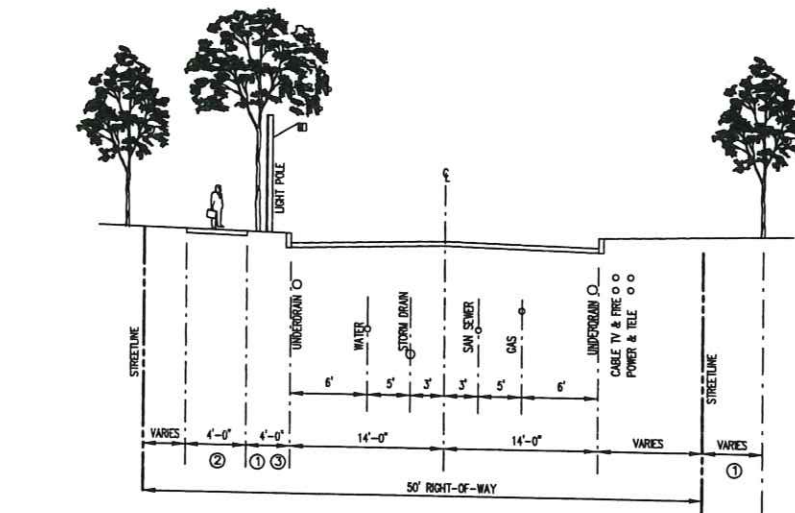
12 TREE PRESERVATION PROTECTION BARRIER DTL  
NOT TO SCALE  
1-14/10-97



14 TREE PROTECTION ETC "FENO MARKER" DTL  
NOT TO SCALE  
1-14/10-97



11 EXISTING STREET TRENCH REPAIR DETAIL  
NOT TO SCALE

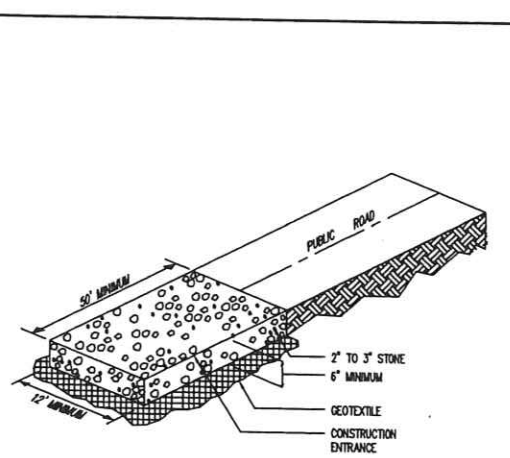


LEGEND:  
① TREEPLANTING LOCATION (VARIABLE)  
② SIDEWALK  
③ ESPLANADE

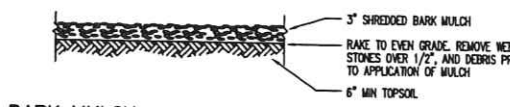
NOTES:  
1. POWER, TELEPHONE AND CABLE TV SHALL NOT BE PLACED LESS THAN 30" DEEP AND DIRECT BURY W/CONDUIT  
2. DEPTH OF SANITARY SEWER AND STORM DRAIN AS PER RECOMMENDATION OF THE CITY ENGINEER  
3. DEPTH OF OTHER UTILITIES AS PER RECOMMENDATION OF APPLICABLE UTILITY COMPANY.  
4. ALL UTILITIES SHALL HAVE WARNING TAPE PLACED OVER EACH LINE. PVC CONDUIT IS REQUIRED FOR STREET CROSSINGS AND UNDER PAVEMENT MORE THAN 12" IN LENGTH.

9 CITY OF PORTLAND - MINOR RESIDENTIAL ST - LOCATION OF UTILITIES  
NOT TO SCALE

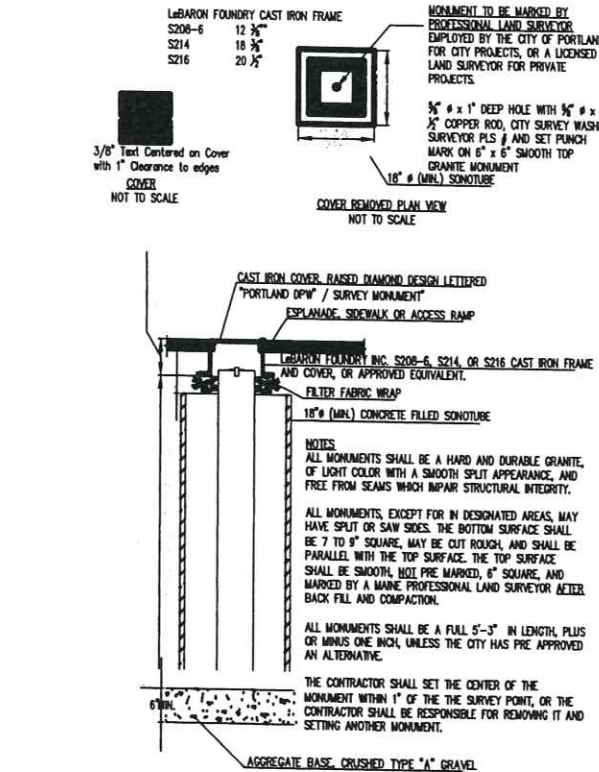
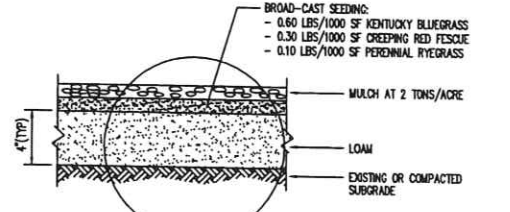
7 CONSTRUCTION ENTRANCE (ROAD EXTENSION)  
NOT TO SCALE



6 BARK MULCH  
NOT TO SCALE

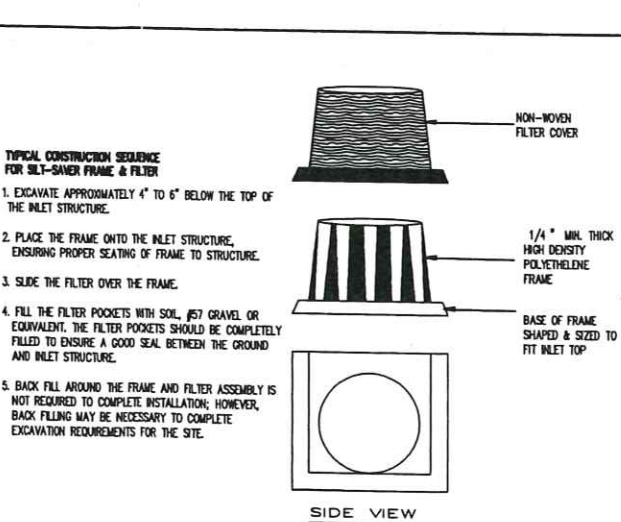


5 LOAM & SEED  
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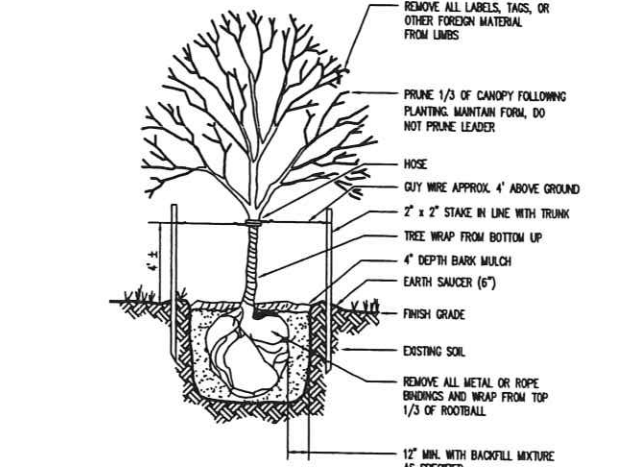


4 GRANITE STREET MONUMENT CROSS SECTION  
NOT TO SCALE

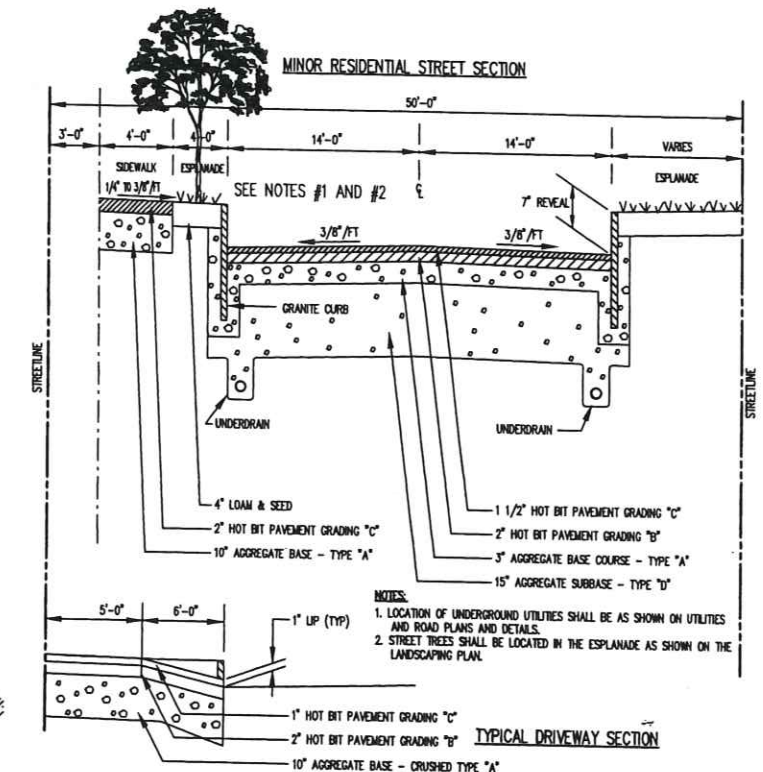
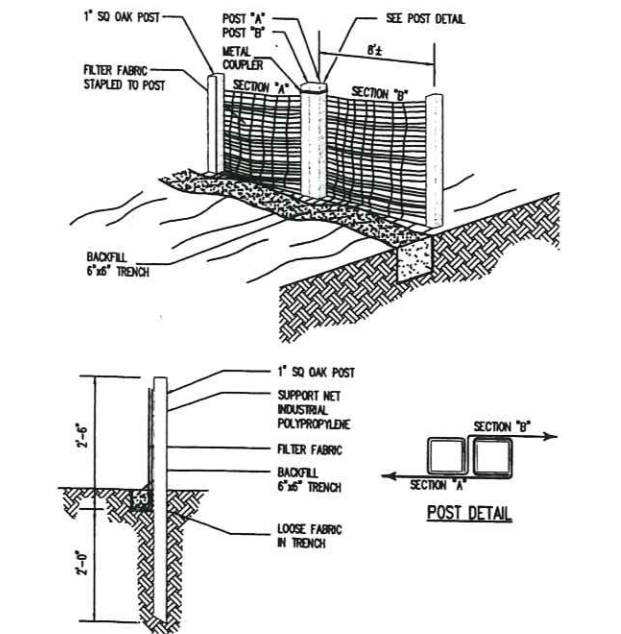
3 SILT SAVER FRAME & FILTER  
NOT TO SCALE



2 DECIDUOUS TREE PLANTING DETAIL  
NOT TO SCALE

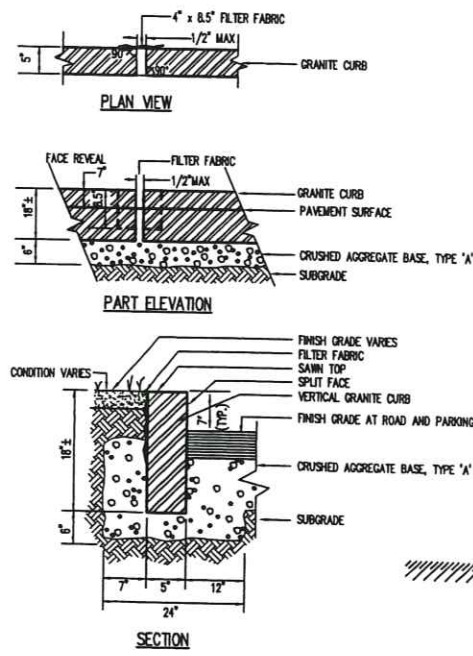


1 PREFABRICATED SILT FENCE  
NOT TO SCALE



8 CITY OF PORTLAND - MINOR RESIDENTIAL STREET SECTION  
NOT TO SCALE

10 VERTICAL GRANITE CURB (MDOT TYPE "1")  
NOT TO SCALE



Stantec Consulting Services Inc.  
22 Free Street, Suite 205  
Portland, ME U.S.A.  
04101-3900  
Tel: 207.775.3211  
Fax: 207.775.6434



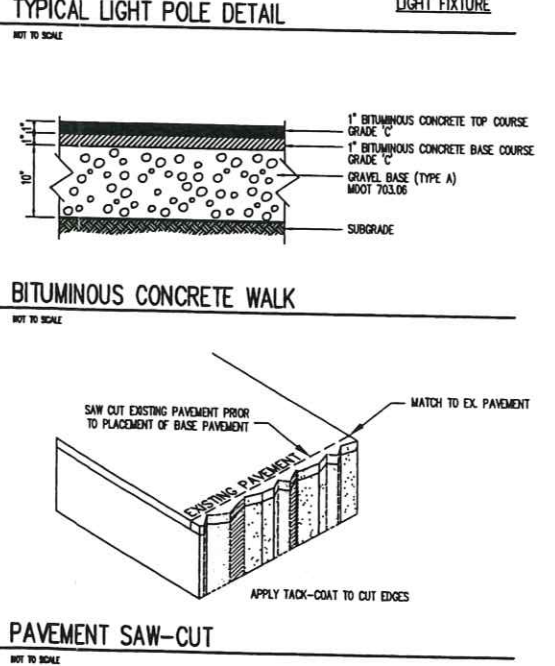
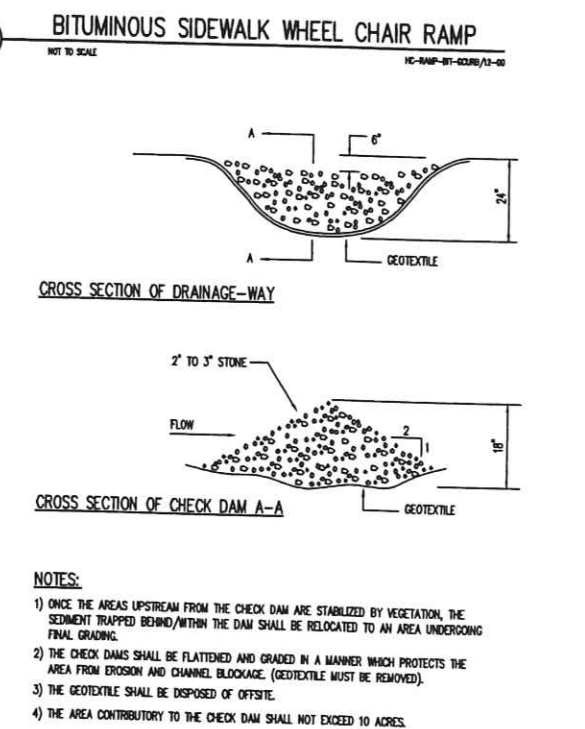
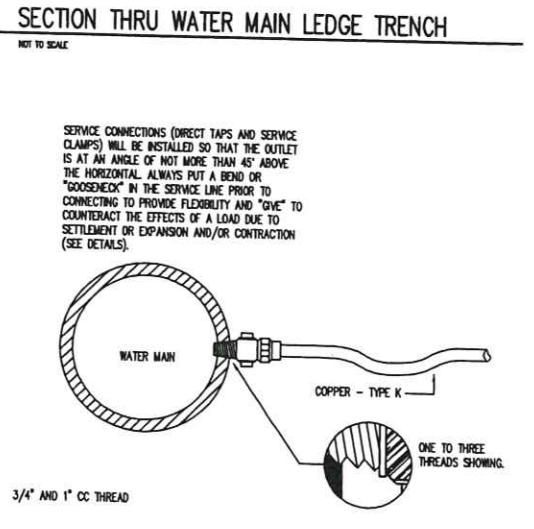
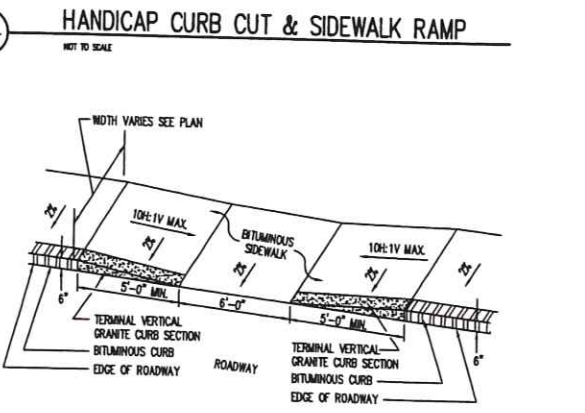
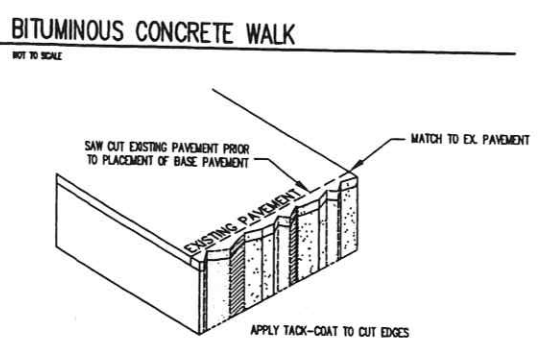
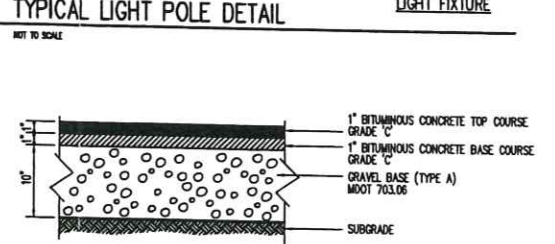
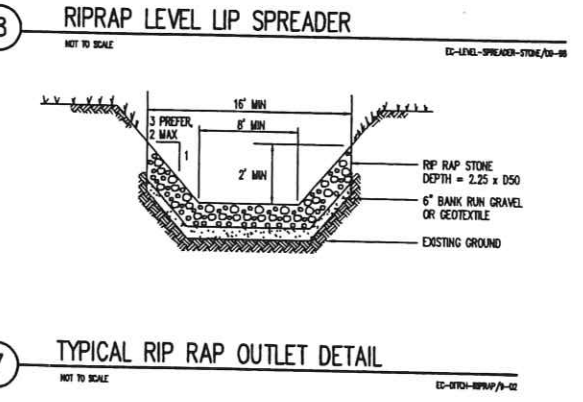
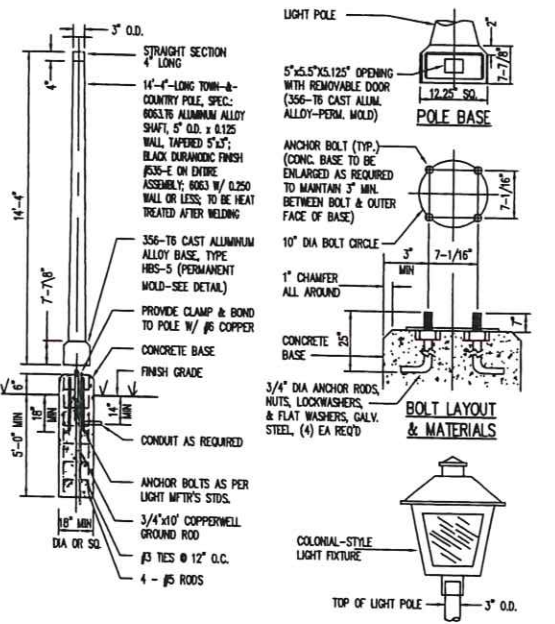
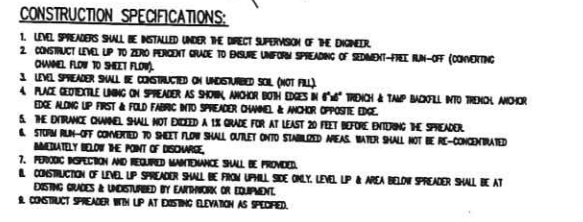
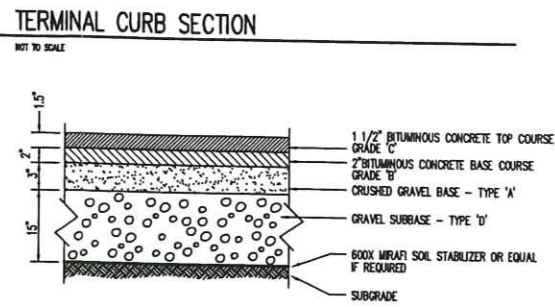
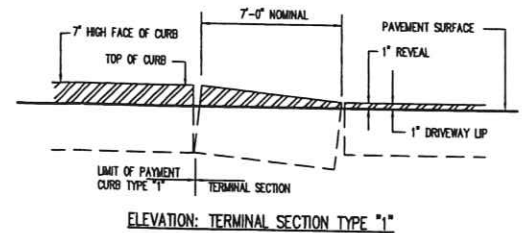
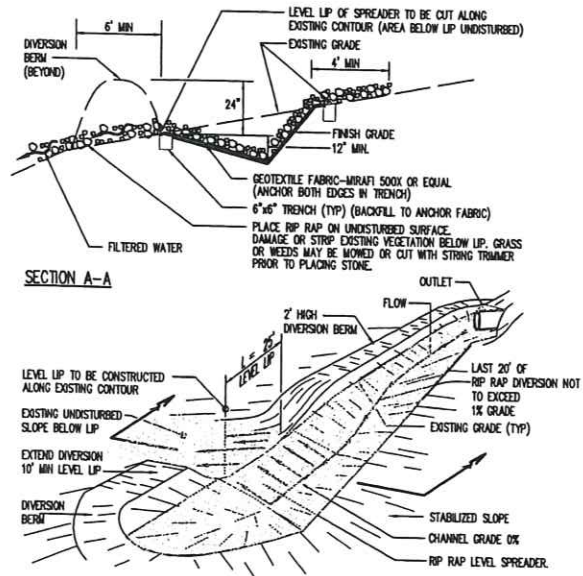
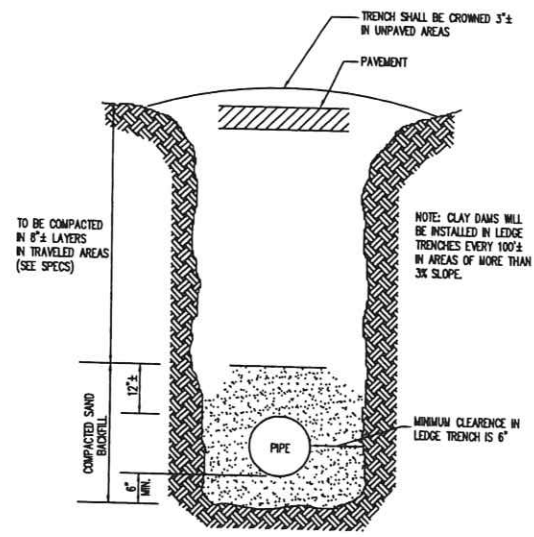
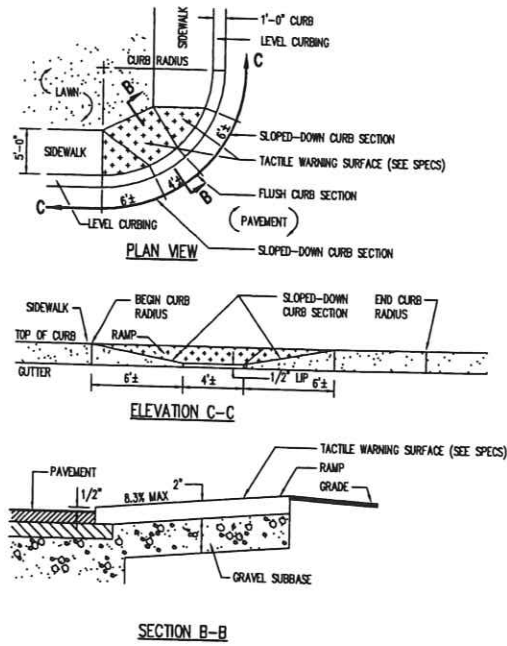
MORNINGSTAR LANE  
SUMMIT STREET, PORTLAND, MAINE  
PREPARED FOR:  
MORNINGSTAR REAL ESTATE TRUST  
9 CRAIGIE STREET  
PORTLAND, MAINE 04102

Revision	Date
REVISED PER ENG/STAFF REVIEW COMMENTS	8-18-06
REV. PER 8/17/06 STAFF REVIEW COMMENTS	8-22-06
PRELIMINARY REVIEW - CITY OF PORTLAND	10-25-07
REVISED PER ENG/STAFF REVIEW COMMENTS	11-15-07
NO REVISION THIS SHEET	12-07-07
REVISED PER ENG/STAFF REVIEW COMMENTS	12-26-07
NO REVISION THIS SHEET	12-26-07
REVISED PER STAFF REVIEW COMMENTS	10-31-08

Designed LDM	Checked LDM	Scale	Date
Drawn PJP	NO SCALE	05-07-07	

DETAILS

Job No. 21080008  
Sheet



Stanlec Consulting Services Inc.  
22 Free Street, Suite 205  
Portland, ME U.S.A.  
04101-3900  
Tel. 207.775.3211  
Fax. 207.775.6434

MORNINGSTAR LANE  
SUMMIT STREET, PORTLAND, MAINE  
PREPARED FOR:  
MORNINGSTAR REAL ESTATE TRUST  
9 CRAIGIE STREET  
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Revision	Date
REVISED PER ENG/STAFF REVIEW COMMENTS	8-11-08
REV. PER 8/21/08 STAFF REVIEW COMMENTS	8-22-08
PRELIMINARY REVIEW - CITY OF PORTLAND	10-29-08
REVISED PER ENG/STAFF REVIEW COMMENTS	11-18-08
NO REVISION THIS SHEET	12-09-08
NO REVISION THIS SHEET	12-29-08
NO REVISION THIS SHEET	03-31-09

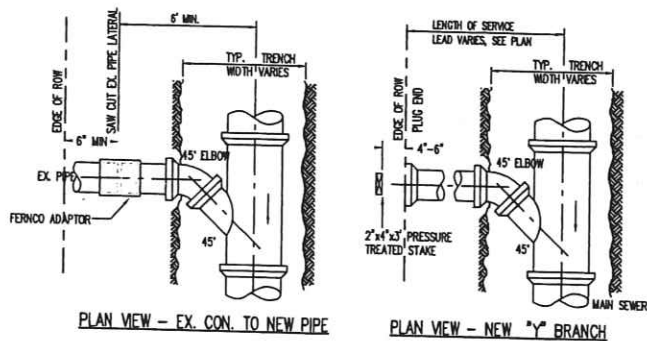
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Date 05-07-07

Job No. 21080008  
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DETAILS

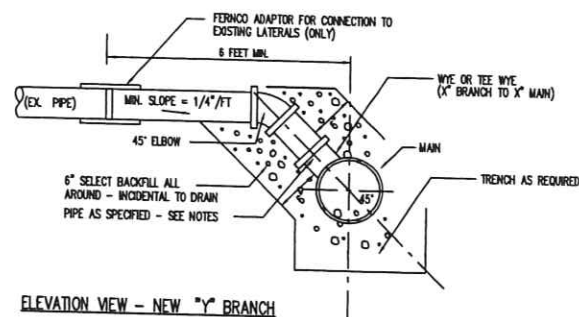
10

ALL NEW UTILITY SERVICE LEADS SHALL BE INSTALLED TO THE RIGHT-OF-WAY LINE. SANITARY SEWER SERVICE LEADS SHALL BE 6-INCH DIAMETER. STORM DRAIN SERVICE LEADS SHALL BE 4-INCH DIAMETER. A PRESSURE-TREATED WOODEN STAKE 2"x4"x3" SHALL BE INSTALLED TO MARK THE END OF EACH NEW SERVICE LEAD.



PLAN VIEW - EX. CON. TO NEW PIPE

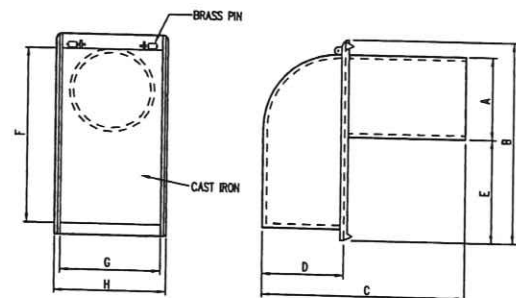
PLAN VIEW - NEW "Y" BRANCH



ELEVATION VIEW - NEW "Y" BRANCH

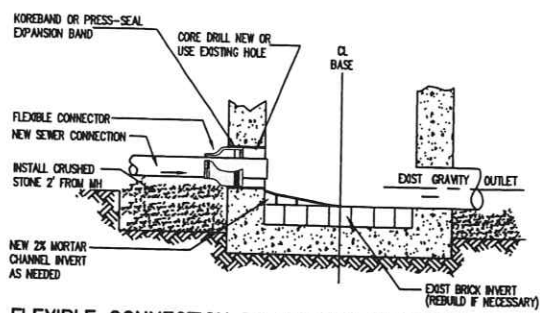
12 TYPICAL SEWER SERVICE LEAD CONNECTION

NOT TO SCALE



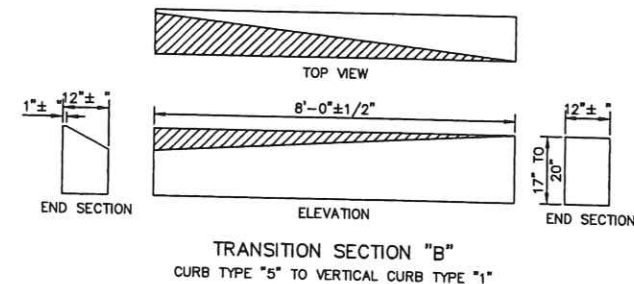
11 CASCO TRAP

NOT TO SCALE



10 FLEXIBLE CONNECTION TO EXISTING MANHOLE

NOT TO SCALE



9 CURB TRANSITION

NOT TO SCALE

9

7 PIPE TRENCH SCHEDULE

NOT TO SCALE

D (OD)	A	B	C	VOL. BASE / 100'	
				UNWEIGHTED	OD. BELL
12"	3'-0"	10"	2"	8.219	20 1/4"
15"	3'-0"	8 1/4"	2 1/4"	8.626	24 1/8"
18"	3'-0"	6 1/2"	2 1/2"	9.925	28"
24"	3'-1 1/2"	6"	2 3/4"	9.266	31 7/8"
30"	3'-6"	6"	3"	11.293	35 3/4"
36"	3'-9 1/2"	6"	3 1/4"	12.625	39 1/4"
42"	4'-1 1/2"	6"	3 1/2"	14.120	43 1/4"
48"	4'-4 1/2"	6"	3 3/4"	15.792	47 1/4"
54"	4'-8"	6"	4"	17.208	51 1/4"
60"	4'-11"	6"	4 1/2"	20.765	55 1/4"
66"	5'-2"	6"	5"	24.462	59 1/4"
72"	5'-5 1/2"	6"	5 1/2"	28.404	63 1/4"
78"	5'-8 1/2"	6"	6"	32.607	67 1/4"
84"	6'-1 1/2"	6"	6 1/2"	37.074	71 1/4"
90"	6'-4"	6"	7"	41.886	75 1/4"
96"	6'-7"	6"	7 1/2"	46.881	79 1/4"
102"	6'-9 1/2"	6"	8"	52.149	83 1/4"
108"	7'-1 1/2"	6"	8 1/2"	57.769	87 1/4"
114"	7'-4"	6"	9"	63.692	91 1/4"

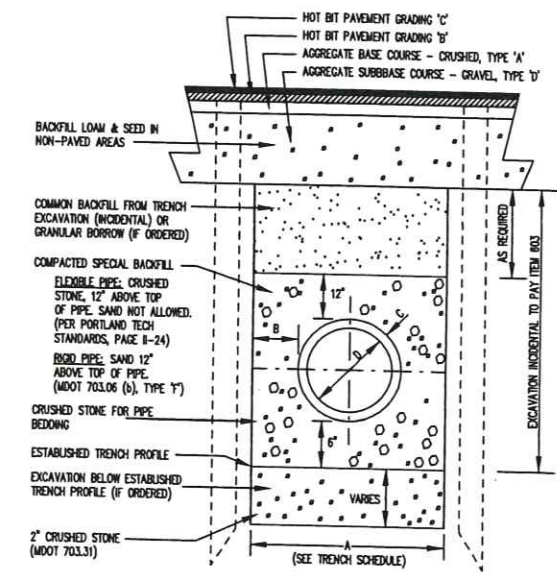
D (OD)	A	B	C	VOL. BASE / 100'	
				UNWEIGHTED	OD. BELL
8"	2'-0"	1'-1 1/2"	1/2"	7.299	10 3/4"
10"	2'-0"	1'-9"	5/8"	7.628	12 1/2"
12"	2'-0"	1'-9"	5/8"	7.902	14 1/2"
14"	2'-0"	1'-9"	5/8"	8.178	16 3/4"
16"	2'-0"	1'-9"	5/8"	8.447	18"
18"	2'-0"	1'-9"	5/8"	8.663	21 1/8"
20"	2'-0"	1'-9"	5/8"	8.815	23 3/8"
22"	2'-0"	1'-9"	5/8"	8.932	25 3/4"
24"	2'-0"	1'-9"	5/8"	9.012	27 3/4"
26"	2'-0"	1'-9"	5/8"	9.062	29 3/4"
28"	2'-0"	1'-9"	5/8"	9.092	31 1/2"
30"	2'-0"	1'-9"	5/8"	9.112	32 1/2"
32"	2'-0"	1'-9"	5/8"	9.122	34 1/2"
34"	2'-0"	1'-9"	5/8"	9.122	36 1/2"
36"	2'-0"	1'-9"	5/8"	9.122	38 1/2"

A - MEAN OF UNWEIGHTED WENCH PVC, TRUSS, GIP AND POLYETHYLENE

8 SEWER & STORM DRAIN PIPE INSTALLATION DETAIL

NOT TO SCALE

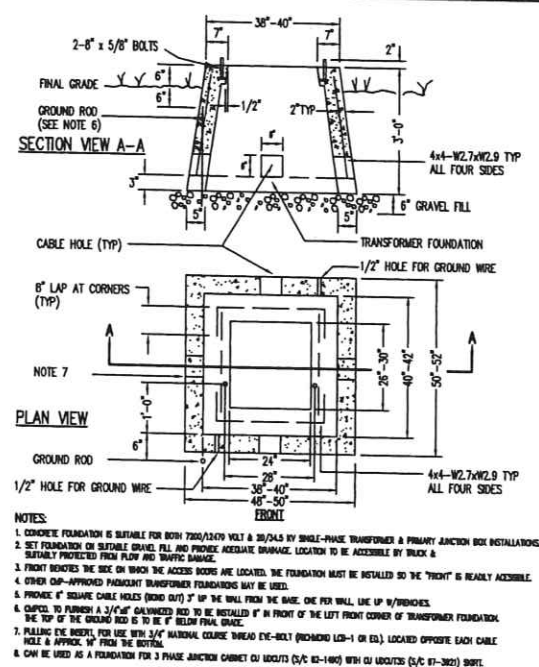
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6 TRANSFORMER PAD DETAIL 25 TO 167 KVA 1 φ

NOT TO SCALE

5



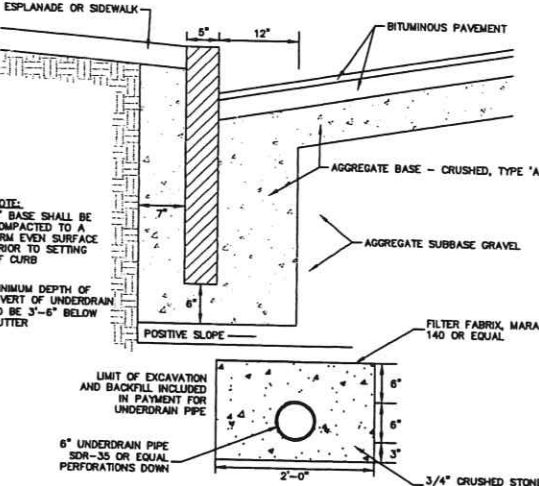
3 ELECTRIC PULLBOX DETAIL

NOT TO SCALE

2

5 SANITARY SEWER MANHOLE

NOT TO SCALE



4 TYPE 'B' UNDERDRAIN WITH VERTICAL GRANITE CURB

NOT TO SCALE

4

3 ELECTRIC PULLBOX DETAIL

NOT TO SCALE

2 CABLE TRENCH - PRIMARY SERVICES

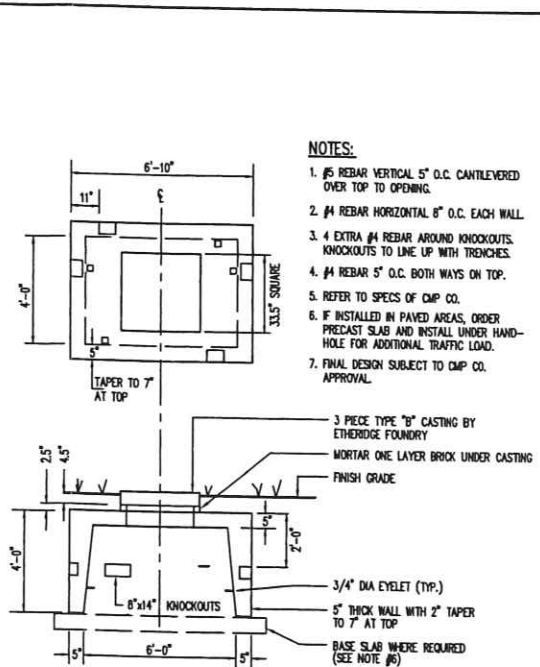
NOT TO SCALE

1 CATCH BASIN W/CURB INLET

NOT TO SCALE

1 CATCH BASIN W/CURB INLET

NOT TO SCALE



2 CABLE TRENCH - PRIMARY SERVICES

NOT TO SCALE

1 CATCH BASIN W/CURB INLET

NOT TO SCALE

1 CATCH BASIN W/CURB INLET

NOT TO SCALE

- NOTES:
- #5 REBAR VERTICAL 5" O.C. CANTILEVERED OVER TOP TO OPENING.
  - #4 REBAR HORIZONTAL 8" O.C. EACH WALL.
  - 4 EXTRA #4 REBAR AROUND KNOCKOUTS, KNOCKOUTS TO LINE UP WITH TRENCHES.
  - #4 REBAR 5" O.C. BOTH WAYS ON TOP.
  - REFER TO SPECS OF CMP CO.
  - IF INSTALLED IN PAVED AREAS, ORDER PRECAST SLAB AND INSTALL UNDER HAND-HOLE FOR ADDITIONAL TRAFFIC LOAD.
  - FINAL DESIGN SUBJECT TO CMP CO. APPROVAL.

- NOTES:
- CONCRETE FOUNDATION IS SUITABLE FOR BOTH 200V/240V VOLT & 30/240V BY SINGLE-PHASE TRANSFORMER & PRIMARY JUNCTION BOX INSTALLATIONS.
  - SET FOUNDATION ON SUFFICIENT GRAVEL FILL AND PROVIDE ADEQUATE DRAINAGE. LOCATION TO BE ACCESSIBLE BY TRUCK & PROTECTED FROM PLUM AND TRAFFIC DAMAGE.
  - FRONT INDICATES THE SIDE ON WHICH THE ACCESS DOORS ARE LOCATED. THE FOUNDATION MUST BE INSTALLED SO THE "FRONT" IS NEARLY ACCESSIBLE.
  - OTHER CMP-APPROVED PARALLEL TRANSFORMER FOUNDATIONS MAY BE USED.
  - PROVIDE 6" SQUARE CABLE HOLES (ROUND OUT) 2" UP THE WALL FROM THE BASE, ONE PER WALL, LINE UP W/KNICKOLES.
  - CABLE TO PENETRATE A 2" DIA. GALVANIZED RING TO BE INSTALLED 6" IN FRONT OF THE LEFT FRONT CORNER OF TRANSFORMER FOUNDATION. THE TOP OF THE RING AND 2" TO 4" BELOW FINAL GRADE.
  - PULLING THE RING, FOR USE WITH 3/4" NATIONAL COURSE WIRE (ROUND OUT) (OR EQ.) LOCATED OPPOSITE EACH CABLE HOLE & APPROX. 1/2" FROM THE BOTTOM.
  - IT CAN BE USED AS A FOUNDATION FOR 3 PHASE JUNCTION CABINET OR MOUNTS (C/C 63-140) WITH OR WITHOUT (C/C 67-302) SHIELD.

- NOTES:
- IF LEDGE IS ENCOUNTERED, DEPTH OF TRENCH MAY BE REDUCED ONLY BY PRIOR APPROVAL BY THE APPROPRIATE UTILITY COMPANIES.
  - BEDDING AND BACKFILL SHALL BE FREE OF ROOTS, STUMPS AND OTHER DEBRIS.
  - REFER TO DETAIL #1 ON SHEET #7 FOR LOCATION OF UG UTILITIES.

- NOTES:
- CONCRETE 4000 PSI AFTER 28 DAYS.
  - REINFORCING #2-20 LOADING 4x4 / 4x4 W/M.
  - EACH CASTING TO HAVE LIFTING HOLES TO BE FILLED WITH NON-SHRINK MORTAR.
  - MANHOLE STEPS TO BE ALUMINUM OR BRASS IMPACT PLASTIC.
  - APPLY TWO COATS OF BITUMASTIC PAINT ON ALL EXTERIOR SECTIONS.

- NOTES:
- #6 BASE SHALL BE COMPACTED TO A FIRM EVEN SURFACE PRIOR TO SETTING OF CURB.
  - MINIMUM DEPTH OF INVERT OF UNDERDRAIN TO BE 3'-6" BELOW POSITIVE SLOPE.
  - 6" UNDERDRAIN PIPE SDR-35 OR EQUAL PERFORATIONS DOWN.

1614

Stantec Consulting Services Inc.  
22 Free Street, Suite 205  
Portland, ME U.S.A.  
04101-3900  
Tel. 207.775.3211  
Fax. 207.775.6434

**State of Maine**  
LYNWOOD D. BROWN  
Professional Engineer

MORNINGSTAR LANE  
SUMMIT STREET, PORTLAND, MAINE  
PREPARED FOR:  
MORNINGSTAR REAL ESTATE TRUST  
9 CRAIGIE STREET  
PORTLAND, MAINE 04102

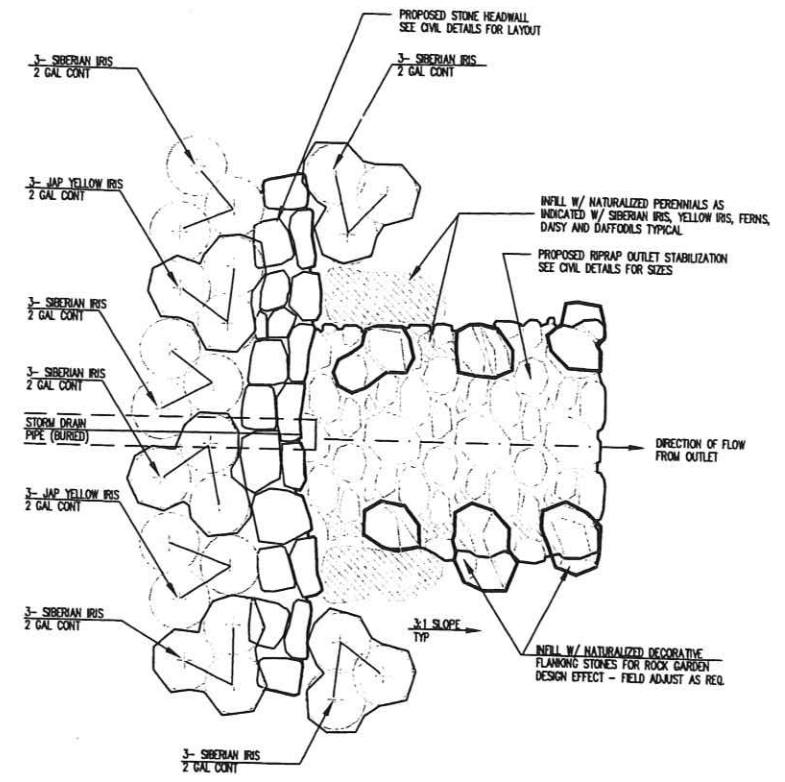
Revision	Date
REVISED PER ENO/STAFF REVIEW COMMENTS	8-11-08
REV. PER B/O/DO STAFF REVIEW COMMENTS	8-22-08
PRELIMINARY REVIEW - CITY OF PORTLAND	10-29-07
NO REVISION THIS SHEET	11-14-07
NO REVISION THIS SHEET	12-07-07
NO REVISION THIS SHEET	12-28-07
NO REVISION THIS SHEET	02-21-08
NO REVISION THIS SHEET	03-31-08

Designed LDM  
Drawn PJP  
Checked LDM  
Scale NO SCALE  
Date 05-07-07

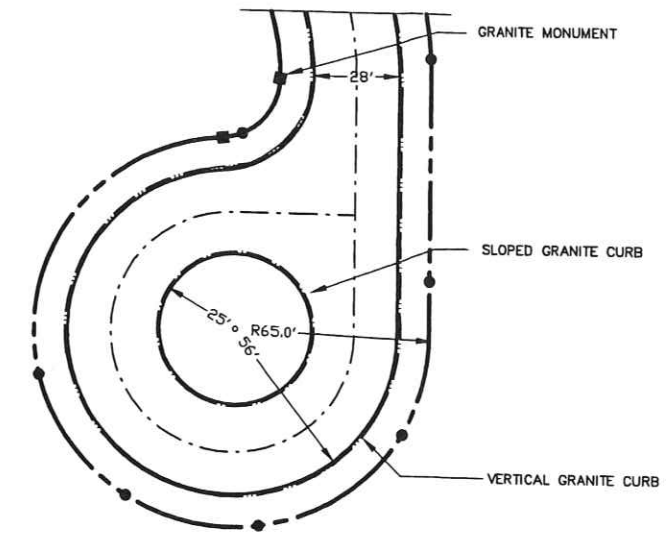
DETAILS

Job No. 21080008  
Sheet

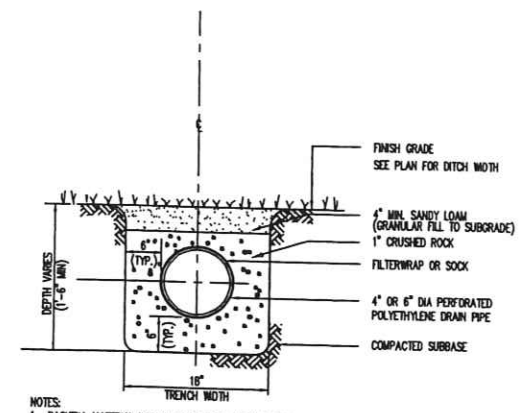
11



4 STORM DRAIN OUTLET RIPRAP AND PERENNIAL PLANTINGS DESIGN CONCEPT  
NOT TO SCALE  
EG-0701-WATING/09-02

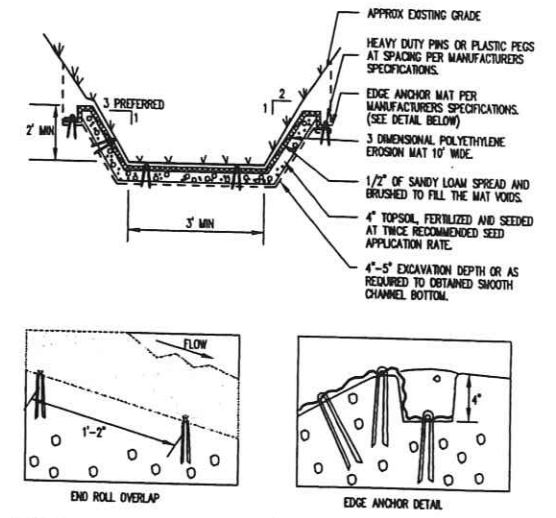


2 CUL-DE-SAC DETAIL  
NOT TO SCALE

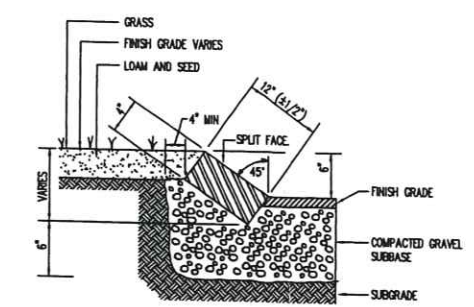


- NOTES:  
1. BACKFILL MATERIAL WITHIN TRENCH BEYOND UNDERDRAIN LATERAL LIMITS SHALL, AS A MINIMUM, CONFORM TO THE REQUIREMENTS OF GRANULAR BORROW.  
2. UNDERDRAIN STONE SHALL CONFORM TO THE REQUIREMENTS OF MDOT 703.22, TYPE C.  
3. OUTLETS SHALL BE CONNECTED AS SHOWN ON THE PLANS.

5 DITCH UNDERDRAIN TRENCH DETAIL  
NOT TO SCALE  
EG-10-REV4/1-02



3 EROSION MAT INSTALLATION IN DITCHES  
NOT TO SCALE  
EG-0701-WATING/09-02



NOTE:  
CURBING SHALL CONFORM TO MDOT-TYPE 5 (S.609.34).

1 SLOPED GRANITE CURB  
NOT TO SCALE  
DM-GRATE-SLOPED/1-01

Stanlec Consulting Services Inc.  
23 Free Street, Suite 205  
Portland, ME U.S.A.  
04101-3900  
Tel: 207.775.3211  
Fax: 207.775.6434



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SUMMIT STREET, PORTLAND, MAINE  
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DRAWN PJP	8-22-06
CHECKED LDM	10-25-07
SCALE NO SCALE	11-15-07
DATE 05-07-07	12-07-07
	12-26-07
	03-21-08
	03-31-08

DETAILS

Job No. 21080008  
Sheet

Memorandum  
Department of Planning and Development  
Planning Division

---



**To:** Chair Beal and Members of the Portland Planning Board

**From:** Jean Fraser, Planner

**Date:** December 8<sup>th</sup>, 2006

**Re:** December 12<sup>th</sup>, 2006 Planning Board Workshop  
Morning Star Lane Subdivision, vicinity of Summit Street  
Morningstar Real Estate Trust, Applicant

---

**Background**

Land Use Consultants (LUC), on behalf of applicant Morningstar Real Estate Trust, has requested a second Planning Board Workshop to present a revised concept plan (sketch plan) and further storm water evaluation for the proposed subdivision. The sketch plan proposes 10 lots, one less than in the original submitted proposal.

They seek feedback from the Board during this workshop about the key elements of the site layout revisions and storm water issues prior to submitting all of the requested information and proceeding with detailed engineering development of the project.

The revised concept plan submission (Attachments 1, 9 and 10) addresses several of the concerns raised at the Workshop and includes:

1. Relocation of the access road to the boundary with Grace Baptist Church lot line with potential benefits for tree saves;
2. Relocation of some of the possible home sites further to the north (those abutting the Lester Drive neighbors)
3. Evaluation of how the development affects the down stream storm water system with and without on-site detention.

The applicants are proposing to utilize the existing detention basin (just off-site to the southwest) (see Attachment 3 which outlines progress) and have designed the layout so as to avoid disturbance within 25 feet of the watercourse on the site. They are in consultations with the abutters to see if they can acquire rights to use and improve the existing off site basin on adjacent land.



At this stage the question of whether it should be reviewed for compliance with Subdivision requirements only or also with Site Review requirements has not been determined as this depends mainly on the final proposal for drainage of the site.

### **Workshop of October 24, 2006 and Public Comments**

Six written representations were considered at the Workshop on October 24, 2006 and 13 abutters/neighbors spoke at the Workshop. The main concerns were the protection of the stream (information was presented suggesting the watercourse was spring-fed and that it flowed year round), impact of filling wetlands/drainage (existing standing water problems), loss of trees and adverse impact on the character of area; traffic issues and adverse impact on wildlife were also mentioned.

The staff letter to the applicant of 11.2.2006 (Attachment 2) has sought to draw together all the issues that were raised at the Workshop by the Board, staff and members of the public.

Two further letters have been received specifically addressing the revised sketch layout and related submissions; both raise a number of concerns. One letter is from Pam Burnside (64 Lester Drive)/Mary Hutchinson (135 Lester Drive) of 12.5.2006 (Attachment 4); the other letter is from Steven and Amanda Rowe (514 Summit Street) of 12.5.2006 Attachment 5. In addition, an e-mail from Pam Burnside on 12.7.2006 raised further questions regarding the watercourse and wetlands (Attachment 6).

### **Staff comments**

Staff met with the applicant at their request on 11.8.2006 to clarify comments and concerns as set out in the 11.2.2006 staff letter and to assist in identifying technical and legal issues that needed to be resolved. These discussions were followed by the submission of 11.28.2006 (Attachment 1, 9 and 10) which addresses a number of fundamental issues.

A formal review of the submitted sketch plan has not been undertaken by staff as the plan does not show enough detail to assess the full implications of the proposals on abutters and on the site resources. The proposed revised layout appears to be an improvement over the original submitted proposal, but there are a number of unanswered questions regarding the impacts on abutters, drainage, wetlands, trees in other areas and the watercourse.

Informal staff comments on the plan revisions are as follows:

- The general location of the revised access road is acceptable from a traffic perspective (see comment from Tom Errico in Attachment 8);
- While the relocated access road does appear to allow more trees to be preserved in the vicinity of Summit Street, a tree survey and tree preservation plan is required for review;
- The implications of the loss of trees along the boundary with the Grace Baptist Church needs to be assessed, including the scope for reinstatement planting;

- The orientation and height of the proposed house building “envelopes” near Summit Street with the associated considerations of grading, buffering and drainage need further consideration;
- Some of the lots are farther from abutters than in the previous plan while some are nearer; the impacts on abutters is difficult to assess in the absence of other information such as proposed “no tree cut zones” and the heights of the proposed homes;
- The City requested downstream storm water modeling be undertaken to ensure that flooding would not occur. This was undertaken and submitted on 11.28.2006 (Attachment 1) and staff accept its conclusion that the development would not cause flooding downstream nor in the existing detention basin (off site) even if there were no detention on site (Attachment 7 City Engineering Review comments of 12.6.2006).
- It would be a benefit to both the project layout and the abutters if a detention basin was not constructed within the site, as it appears more of the existing mature tree cover could be preserved;
- Staff are unable to comment on the other benefits ascribed to the proposal to share the existing (off-site) detention basin as outlined in the LUC e-mail of 12.6.2006 (Attachment 3);
- No further information has been received regarding the stream and staff recommend the watercourse be classified as an intermittent stream for the purposes of this discussion, for which a 25 foot buffer would be required (and it is noted that the sketch proposals do not infringe upon the 25 foot setback);
- The impact of the proposal on the wetlands has yet to be fully documented and the scale of wetland fill has not been shown on the plans; also the Tier 1 Permit application is pending.

### Next Steps

In addition to the items covered by this Memorandum, the following items remain outstanding; several items have been included in this list based on recent reviews:

- Submit further information (to both the City and MDEP) to clarify the extent of the watershed boundary upstream from this watercourse and confirm or otherwise the presence of springs as a contributing source to this watercourse.
- Show the 25 foot and 75 foot setback contour lines on all plans as previously submitted and extend these contours outside of the site boundary so that the impact of disturbance at or near the boundary can be understood.
- Show the areas of wetland proposed to be filled, with calculations of the areas of wetlands, areas of fill, and provide a copy of the Tier 1 Permit application.
- Demonstrate that the remaining wetlands (including alongside the Church and along the boundary with abutters on Stonecrest Drive) will not expand/relocate as a result of the increase in impervious surface/filling of wetlands and will not adversely impact abutters.
- Submit a tree survey showing the location of significant existing trees, as previously requested. This plan should show all of the significant trees in and near areas that are proposed to be regraded or otherwise disturbed.

- Show the location of existing significant trees (over the whole of the site) that are to be protected and preserved on the Landscaping Plan, including identification of “No-cut” zones.
- Clarify what legal or other steps will be taken to ensure the trees designated for retention would not be removed by the prospective owners.
- Confirm what vegetation will remain over the sewer easement and whether any tree loss can be reinstated.
- Submit a Class B High Intensity Soil Survey.
- Obtain a letter from the *Maine Department of Inland Fisheries and Wildlife* regarding the importance of the area as a wildlife habitat and address the issue of its possible value as a wildlife corridor.
- Regarding any detention basin on or off site, clarify its design including how often will it have standing water in it and what steps will be taken to avoid mosquitoes and ensure security. For off-site basin, secure rights from abutters to utilize.
- Clarify the arrangements for maintaining the proposed detention basin, how the basin will be accessed and what/when maintenance operations will be undertaken.
- Submit a waiver request if only one sidewalk is proposed along the cul de sac, indicating the basis on which a waiver is requested.
- Incorporate pedestrian/bicycle links to Portland Trails and other neighborhoods and amenities.
- Confirm willingness to contribute \$5,000.00 towards the implementation of future traffic calming improvements on Summit Street between Lambert Street and Washington Avenue.
- Address the comments of the DRC Dan Goyette of Woodard & Curran dated October 19, 2006 regarding the setting of monuments.
- Hold a neighborhood meeting.

Attachments:

[also see PB memo considered October 24, 2006 and its attachments]

1. LUC submission of November 28, 2006 letter and Storm Water Management Report (submitted plans in Attachments 9 and 10)
2. City Planner letter dated November 2, 2006 (includes Engineering Review comments of October 19, 2006)
3. LUC e-mail dated December 6, 2006, outlining progress on proposal to utilize the existing detention basin

*Further comments from neighbors/abutters*

4. Pamela M. Burnside (64 Lester Drive) and Mary L. Hutchinson (135 Lester Drive) letter of December 5, 2006
5. Steven and Amanda Rowe, 514 Summit Street, letter of December 5, 2006
6. Pamela M. Burnside e-mail of December 7, 2006

*Staff comments*

7. Engineering Review by Dan Goyette, PE Woodard & Curran, memorandum dated December 6, 2006
8. Traffic Engineering Review from Tom Errico, PE Wilbur Smith Assoc. dated December 6, 2006

*Plans submitted*

9. SK-1 Revised Subdivision Sketch Plan
10. Offsite Drainage Study Lester Dr. Area



Land Use Consultants Inc.

p l a n n e r s  
e n g i n e e r s  
l a n d s c a p e  
a r c h i t e c t s

Attachment 1a

David A. Kamila PE  
Frederic J. Licht PE  
Thomas N. Emery RLA  
J. David Haynes RLA

November 28, 2006

2897

Ms. Jean Fraser, City Planner  
Department of Planning & Urban Development  
City Hall 289 Congress Street  
Portland, ME 04101

**Morningstar Lane Subdivision Summit Street (Planning Bd. Workshop Review stage).  
Revised Subdivision Sketch Plan for Workshop Presentation**

Dear Jean:

In response to comments from the October Planning Board workshop meeting and the follow up meeting with staff, we have prepared a revised Subdivision Sketch Plan and Offsite Stormwater Management Report. We are attaching 14 copies for your use. We respectfully request that before we re-engineer and redesign the entire plan set, that this application be scheduled for another workshop meeting with the Planning Board to discuss the proposed revisions and ongoing discussions with the abutters.

We have done the following since the October Planning Board Workshop:

1. Met with City Staff to review comments regarding Lot layout, landscaping and stormwater.
2. Prepared storm water evaluation to model the down-stream impacts and developed an alternative approach to share stormwater facilities.
3. Relocated the access road to run contiguous with the Church property side lot line.
4. Reduced the number of Lots from 11 to 10.
5. Continued direct discussion with some of the abutters.

Benefits of the proposed plan revisions:

1. Preserves more trees and buffer particularly in the southwest corner of the site.
2. Increases opportunities for tree preservation and additional buffer planting to the east of #514 Summit St.
3. With or without onsite storm water detention, the proposed development will not cause flooding down stream.
4. Provides more opportunities for tree preservation throughout the property.
5. Increases the setback of buildings along the southerly boundary with Lester Drive.

As you are aware, there has been considerable effort put forth to date to get before the Planning Board for one workshop. We look forward to discussing the plan revisions with the Planning Board.

Please don't hesitate to contact us if you have any questions or comments.

Sincerely,

  
Thomas N. Emery, RLA/ Lynwood Myshraal, PE

966 RIVERSIDE STREET  
PORTLAND, MAINE 04103

voice (207) 878 · 3313  
f a x (207) 878 · 0201  
email: landuse@landuseinc.net

Encl. SK-1 Revised Subdivision Sketch Plan 11-27-06, Offsite Stormwater Management  
Report 11-27-06

included 2 plans - see attachments 9 + 10

**Offsite**  
**Stormwater Management Report**

**Morningstar Lane**

Summit Street  
Portland, Maine

Prepared for:

**Morningstar Real Estate Trust**  
**9 Craigie Street**  
**Portland, Maine 04102**

Prepared by:

**Land Use Consultants, Inc.**  
**Portland, Maine**

November 27, 2006

1c

Morningstar Lane  
Summit Street  
Portland, Maine

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### Report Section

1. Introduction
2. Pre-Development Conditions
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4. Stormwater analysis
5. Summary

### Tables

1. Peak Runoff Rates Point of Interest Existing Detention Pond
2. Peak Runoff Rates Point of Interest Western Property Line
3. Existing Pond Summary No Development
4. Existing Pond Summary With Development Detention
5. Existing Pond Summary Without Development Detention

### Attachments

- |   |   |   |  |
|---|---|---|--|
| <i>Submitted<br/>but not<br/>included<br/>in PB memo<br/>will be<br/>available at<br/>PB meeting.</i> | { | 1 | HydroCad Computer Output – Pre-Development                             |
|   |   | 2 | HydroCad Computer Output – Post-Development No Development Detention   |
|   |   | 3 | HydroCad Computer Output – Post-Development With Development Detention |

1d

## **OFFSITE STORMWATER MANAGEMENT REPORT**

### **Morningstar Lane Subdivision**

#### **1. Introduction**

Morningstar Real Estate Trust has been requested by the City of Portland to analyze the possible downstream impacts to the existing stormwater system in Lester Drive due to the proposed development before the Planning Board.

#### **2. Predevelopment Conditions**

##### **2.1 Existing Site Conditions**

The existing conditions was analyzed using the existing 24" concrete culvert passing under Washington avenue at the bottom of Lester drive as the point of interest. The 24" culvert daylights to an open channel and ravine before passing under the railroad tracks beyond.

The analysis took into account the property east of the site, which includes the church property, the property to be developed and the area of Lester Drive that contributes runoff to the 24" culvert. The watershed map is included with this report.

#### **3. Postdevelopment Conditions**

##### **3.1 Proposed site Conditions**

The postdevelopment downstream impact was analyzed for two conditions. The first condition analyzed the proposed development utilizing an onsite detention pond discharging into the existing adjacent pond. The second condition analyzed the site runoff discharging directly into the existing adjacent pond without on site detention. Both conditions analyzed the 24" culvert as the point of interest

#### **4. Stormwater Analysis**

The 'Hydro-CAD Stormwater Modeling System' computer program (Version 7.0) was used to analyze the pre- and post-development runoff from the project area for the 25-year storm events.

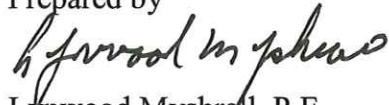
#### **5. Summary**

The offsite analysis requested by the City of Portland revealed that the proposed development with detention would not cause and increase in flows discharging from the 24" culvert under Washington Avenue. This condition reveals a decrease of 0.18 cfs discharging from the 24" culvert.

le

The development discharging directly into the existing pond without onsite detention shows an increase of 2.76 cfs for the 25-year storm at the 24" culvert. There is no attenuation in flow passing through the 24" culvert due to the increase. Overall, the analysis reveals that Morning Star Lane will not cause flooding downstream with or without onsite detention. Additionally, the analysis reveals that with or without onsite detention the development will not cause flooding in the existing detention pond. The attached tables summarize the flows for the pre and post development conditions at the 24" culvert point of interest and at the existing pond adjacent to the site.

Prepared by



Lynwood Myshraal, P.E.  
Senior Project Engineer



## Tables

<b>Table 1</b> <b>Peak Runoff Rates (cfs) No Development Detention</b> <b>Points of Interest</b> <b>24" Culvert</b>			
<b>Design Storm</b>	<b>Predevelopment</b>	<b>Postdevelopment</b>	<b>Difference</b>
25 Year	34.90	37.66	+2.76

<b>Table 2</b> <b>Peak Runoff Rates (cfs) With Development Detention</b> <b>Points of Interest</b> <b>24" Culvert</b>			
<b>Design Storm</b>	<b>Predevelopment</b>	<b>Postdevelopment</b>	<b>Difference</b>
25 Year	34.90	34.71	-0.19

<b>Table 3</b> <b>Existing Pond Summary</b> <b>No Development</b>			
<b>Design Storm</b>	<b>Inflow cfs</b>	<b>Outflow cfs</b>	<b>Max. Stage ft</b>
25 Year	19.96	19.92	88.82

<b>Table 4</b> <b>Existing Pond Summary</b> <b>With</b> <b>Development Detention</b>			
<b>Design Storm</b>	<b>Inflow cfs</b>	<b>Outflow cfs</b>	<b>Max. Stage ft</b>
25 Year	20.23	20.19	88.86

19

<b>Table 5 Existing Pond Summary Without Development Detention</b>			
<b>Design Storm</b>	<b>Inflow cfs</b>	<b>Outflow cfs</b>	<b>Max. Stage ft</b>
25 Year	19.02	18.99	88.58



# PORTLAND MAINE

*Strengthening a Remarkable City. Building a Community for Life* [www.portlandmaine.gov](http://www.portlandmaine.gov)

Attachment 2a

**Planning and Development Department**  
Lee D. Urban, Director

**Planning Division**  
Alexander Jaegerman, Director

November 2, 2006

Thomas N. Emery, RLA  
Land Use Consultants, Inc  
966 Riverside Street  
Portland, ME 04103

Dear Mr. Emery,

**Re: Sub Division and Site Plan Review: Morning Star Subdivision off Summit Street  
Our Ref: 2005-0232**

Further to the Planning Board Workshop held on October 24, 2006, I am writing to clarify the issues that should be addressed in the revisions and what further information is requested to allow the review to continue at a second Planning Board Workshop on this project.

1. **Watercourse:** A central issue is the status of the watercourse on the site. The City's Sub Division Ordinance uses the same definition of a stream (protected natural resource) as the MDEP ie Title 38 M.R.S.A. Section 480-B, subsection 9 (NRPA Act), as updated.

The Act states: "9. River, stream or brook means a channel between defined banks. A channel is created by the action of surface water and has 2 or more of the following characteristics." (5 are listed). Woodlots Alternatives confirmed that three of those characteristics were not found (A, D and E of section 9), that one was definitely found (C of section 9.) and that "it is unknown" whether B. was met. B states "It contains or is known to contain flowing water continuously for a periods of at least 6 months of the year in most years."

At the Workshop six immediate abutters gave testimony to the fact that the watercourse flowed year round, and several suggested that the watercourse could be spring fed and was not just a "degraded drainage channel". Given that Woodlot Alternatives Inc. could not be definitive on this point the status of the watercourse is still unclear from the City's viewpoint. Please submit further information to clarify the extent of the watershed boundary upstream from this watercourse and confirm or otherwise the presence of springs as a contributing source to this watercourse. This information should be submitted to both the MDEP and the City.

At this stage the weight of evidence indicates that a 25 foot buffer is justified and therefore all disturbance, including that associated with the proposed detention basin and its structures, should remain outside the 25 foot setback contour.

Please retain the 25 foot and 75 foot setback contour lines on all plans as previously submitted to assist the Planning Board's understanding of the proposals and their impacts. Please extend these contours outside of the site boundary so that the impact of disturbance at or near the boundary can be understood.

One factor on which little information is currently available is the role of this site in terms of a wildlife corridor. The arguments made in relation to the Ball Park subdivision may also apply here and also support the need for a buffer along the watercourse.

2. **Wetlands:** Please show the areas of wetland proposed to be filled, with calculations of the areas of wetlands, areas of fill, and provide a copy of the Tier 1 Permit application. Also please demonstrate that:
  - a. Wetlands alongside the Church will not expand/relocate as a result of the increase in impervious surface/filling of wetlands near Summit Street and that there will not be any impact on 514 Summit Street;
  - b. Wetlands(including standing water) now located along the NW boundary and partly within abutters property on Stonecrest Drive will not be increased and/or relocated nearer to these properties as a result of the proposed development.
3. **Existing Vegetation:** In view of the large size of existing trees, the density of the existing planting, and the associated wildlife habitat, please submit a tree survey showing the location of significant existing trees, as previously requested. This plan should show all of the significant trees in and near areas that are proposed to be regraded or otherwise disturbed.
4. **Landscaping and Tree-saves:** We understand that the applicant is preparing revisions which will save more trees and provide greater buffers to abutters. The Planning Board supported the option to relocate the access road and preserve the substantial stands of white pine along Summit Street and in general the proposal should respect the character of the area.

For the revised submissions, please show the location (on the project site) of existing significant trees that are to be protected and preserved on the landscaping plan. "No-cut" zones should also be identified. In addition please clarify what legal or other steps will be taken to ensure the trees so designated for retention would not be removed by the prospective owners. Also please confirm what vegetation will remain over the sewer easement and whether any tree loss can be reinstated.

5. **Drainage:** Please submit modeling information that demonstrates that the downstream piping can adequately handle the development's storm water. I suggest that you discuss this further with the City's DRC, Dan Goyette of Woodard & Curran, as suggested at the Workshop. Concerns regarding the timing of peak flows need to be addressed along with the cumulative stormwater impacts of the development and local roads on flooding problems in Washington Avenue.

As outlined in the Planning Board Memorandum the proposed detention basin and associated structures/disturbance should be relocated at least 30 feet from the site boundary to minimize downstream impacts, as well as remain outside the 25 foot buffer to the watercourse. In view of the capacity of the existing drainage area on Lester Drive, a better overall solution may be to convert this area into a detention basin, subject to the agreement of the landowners. It would be helpful to understand whether this and other alternatives which may have less impact on the site and abutters have been considered.

Please clarify the nature of any proposed detention basin (including how often will it have standing water in it) and the impact on the existing detention area (ie how much more often will it have standing water in it and for how long); if any standing water, please indicate what steps will be taken to avoid mosquitoes and ensure security.

Please note that the City will not take on the responsibility for maintaining any proposed detention basin on the site and would require that a Homeowners Association be formed; the Homeowner's Association and its members will be held jointly and severably liable for the ongoing maintenance of the on-site drainage system. The City would have an Easement to deal with system failure, with financial recourse (jointly and severably) to the Homeowners.

Please clarify the arrangements for maintaining the proposed detention basin, how the basin will be accessed and what/when maintenance operations will be undertaken.

6. **Location of the new access road:** The location of the road needs to be revised to address concerns regarding loss of trees (see above) and impact on the homes on the opposite side of Summit Street as outlined at the Workshop. Please note that the 28 foot width requirement for the road will not be waived by the City; a 50 foot Right-of-Way is required in any case, so the road width will not affect the number of lots. However, a revised location of the roadway (paved area) within the Right of Way could be considered if clearly necessary to achieve more tree saves or reduce impacts.
7. **Sidewalks:** The City's Ordinance requires that sidewalks be provided on both sides of the proposed Morning Star Lane and a waiver request should be submitted if only one sidewalk is proposed, indicating the basis on which a waiver is requested (refer to the waiver provisions of the Ordinance, which were previously sent to you).
8. **Pedestrian Links/Connections to Portland Trails:** A Portland Trail network has been established to the south east and south of the site (intended to continue across the southern part of the Church) and there is a pedestrian right of way adjacent to the site leading to Stonecrest Drive and Summit Street. Links to both of these would connect the proposed development to other neighborhoods and amenities and should be incorporated into the revised layout.
9. **Traffic Calming:** The City's Traffic Engineer suggests that the applicant contribute \$5,000.00 towards the implementation of future traffic calming improvements on Summit Street between Lambert Street and Washington Avenue. The contribution shall be placed in an escrow account and returned to the applicant after ten years if it is not used.

10. **Survey:** Please address the comments of the DRC Dan Goyette of Woodard & Curran dated October 19, 2006 regarding the setting of monuments.

The question of whether this is reviewed under Subdivision and Site Plan Standards will be determined once the revisions have been submitted.

I confirm that this project is provisionally scheduled for a second Planning Board Workshop on November 28, 2006 (afternoon) and in order to maintain that timetable any revisions and associated information need to be submitted by November 14, 2006.

If you have any questions, please do not hesitate to contact me on (207) 874 8728 or at [jf@portlandmaine.gov](mailto:jf@portlandmaine.gov). I am out of the office between November 3<sup>rd</sup> and 10<sup>th</sup>, so in my absence please contact Barbara Barhydt, Acting Development Review Services on (207) 874 8699 or at [bab@portlandmaine.gov](mailto:bab@portlandmaine.gov).

Sincerely,



Jean Fraser  
Planner

Enclosure: Memo from Dan Goyette of Woodard & Curran dated October 19, 2006

Cc — Barbara Barhydt, Acting Development Review Services Manager  
Eric Labelle, City Engineer  
Jim Carmody, Traffic Engineer  
Tom Errico, Traffic Engineer  
Marge Schmuckal, Zoning Administrator  
Penny Littell, Associate Corporation Counsel  
Jeff Tarling, City Arborist  
Dan Goyette, City's Engineering Reviewer

## MEMORANDUM

05-232

**TO:** Jean Fraser, City of Portland Planner  
**FROM:** Dan Goyette, PE – Development Review Engineer, Woodard & Curran, Inc.  
**DATE:** October 19, 2006  
**RE:** Morningstar Lane Subdivision

---

Woodard & Curran has reviewed the Preliminary Subdivision and Site Plan Supplementary Information submission for the proposed project for the Morningstar Lane Subdivision. The project involves the development of an 11 lot residential from an existing 5.7 acre parcel.

### Documents Reviewed

- Response to Comments prepared by Thomas Emery, Land Use Consultants, dated August 31, 2006 to Jean Fraser.
- Engineering plan set prepared by Land Use Consultants, sheets 1-12, Existing Conditions and Boundary Plan and Recording Plat all revised September 22, 2006.

### 1. Stormwater Management

- A. The delineation of the intermittent stream stops at the property line. The 25' offset line also terminates when the stream crosses the property line. The plans do not show that the stream continues to flow close to the property line before entering the existing detention basin. The offset line and the intermittent stream should be shown in its entirety. This would then require that the detention pond be located at a minimum 25' from the stream and thus 25' from the property line.
- B. The applicant has failed to demonstrate that the downstream piping can adequately handle the development's stormwater. The applicant states that it is "unlikely" to cause downstream flooding. The downstream piping should be modeled to demonstrate that it is adequate.
- C. The applicant indicates that the existing pond has a capacity of 39,500 cubic feet of storage. It would appear that the applicant could approach the property owners on which the pond exists and possibly utilize the existing structure. This could negate a large amount of clearing and regrading associated with the proposed pond.

### 2. General

- A. A final subdivision plan will need to be generated showing standard survey notes, survey references, and City notes/requirements per subdivision standards. Also the final plan shall be sealed and signed by a State of Maine Licensed Surveyor.
- B. Granite monuments shall be set on one side of the street as directed by the City Engineer on the 3 foot offset Lines, as offset into the street, at all intersections, points of curvature, points of tangency, street angle points, and at the end of acceptance of the street. At a cul-de-sac a radius point monument shall be set, or if conflict arises with detention ponds etc, a second monument shall be set at the second point of reverse curvature point at the cul-de-sac. Monuments shall not

2f

be set over sewers, laterals, or other utilities. Where there is a conflict in the utilities shall be set in alternate locations, or all the monuments shall be set on the opposing side of the street.

DRG  
203848.66

cc: File



Attachment 3a

**From:** "Thomas N. Emery, RLA" <temery@landuseinc.net>  
**To:** "Jean Fraser" <JF@portlandmaine.gov>  
**Date:** 12/6/2006 2:13:11 PM  
**Subject:** RE: Morning Star Lane drainage meeting 12-05-06

Hi Jean,

We met last evening with the abutters (who own the detention basin land in fee) and with Eric LaBelle, PE City Engineer.

The purpose of that meeting was to continue discussion with the abutters about storm water issues and the possibility of sharing the existing detention basin. The City engineer and peer reviewer were asked to attend to be sure that the discussion was impartial and objective. Dan could not attend.

The option we are proposing is to not detain stormwater on-site, but rather utilize the existing detention basin. This proposal is based on the findings from our stormwater analysis study requested by the City, as well as the DEP's new storm water law. The diversion swale will continue to be part of the grading plan.

The abutters are taking this under consideration and asked to be fully involved with the design process, including review of the design of the outlet pipe and riprap (LUC will provide sketches/ photo-image in addition to design detail).

We noted that the study prepared by Lynwood Myshrall, PE and the proposed design will also require the approval of the City Engineer. This issue will also require review and approval from Corporation Counsel.

The benefits of the current shared detention option include:

1. Protection of the buffer in the southwest part of the site.
2. Maintenance for the existing detention basin.
3. Providing an opportunity for the abutter to correct existing surface drainage concerns on his own lot.
4. Include provisions for on-going maintenance of the existing detention basin.
5. Provide comprehensive evaluation of the drainage needs and options affecting the abutters.

As a comment, Eric is a wonderful representative of the City. He maintained a professional, neutral position and was very helpful in explaining the technical issues to the abutters in understandable terms. We very much appreciate his taking the time to meet.

This is a brief summary only. There was much listening to learn of the concerns of the abutters and much discussion to explain not only the proposed plan, but to describe the existing drainage issues on-site, off site and down stream.

Tom

Attachment 6a

**From:** "SP BakerBurnside" <Burnside@maine.rr.com>  
**To:** "Jean Fraser" <JF@portlandmaine.gov>  
**Date:** 12/7/2006 12:29:18 PM  
**Subject:** Morningstar Lane

Hi Jean:

In addition to the letter Mary & I submitted the other day we have additional questions and concerns:

1. What is the role of the Army Corp of Engineers in determining stream and wetland classifications? (See letter from Mark Hampton to Rod Howe of the ACOE dated 11/25/05 noting the ACOE's determination of the stream and wetlands on the proposed Morningstar Lane subdivision) We are curious as to which entity being the City, the ACOE or the MDEP, ultimately has the authority to legally classify streams and/or wetlands?
2. Was it the City, the MDEP or another agency that gave the Church the authority to install a culvert on the border of its property and the Dorler property? Obviously the City and the MDEP knew the effect the supposed "runoff". If one walks the property it is clear that pipes were also installed to channel the water from the culvert on the church property to the "the urban stream" abutting the Lester Drive properties, thus creating a wetland. Clearly the stream's origination, path and flow were known in advance; because why else would a culvert be installed on private property now belonging to the Wings?
3. The MDEP and the City of Portland knew long ago that any "runoff" from the church parking lot would in fact create a stream of one size or another. If our interpretation of NRPA rules and regulations, this should never have been legally allowed. Given the fact that the stream exists there is no point to arguing it; it has banks and it a channel and is fed not only by supposed "runoff" but also by other fingers throughout the wetland on the Dorler property (See NRPA MRSA 38). As a result, the stream should be classified as either intermittent or perennial. Given the Daily Climate Information and Precipitation Tables for this area as provided by the State of Maine's climatologist and the fact that the abutters firmly state the water in the stream runs year round, we believe the stream is perennial. That fact alone argues for a 75 foot setback not 25 foot setbacks that the developer and the City are currently proposing.
4. The wetland cannot by definition be utilized solely for runoff and therefore, we believe, the City cannot legally allow the proposed Morningstar Lane to develop with the intention of off-loading its post development runoff into the Wing and Lang property (See NRPA Appendices).

That's it for now. Please let me know your responses to the above.

Best to you,

Pam Burnside and Mary Hutchison  
<mailto:burnside@maine.rr.com> burnside@maine.rr.com

**MEMORANDUM**

**05-232**

**TO:** Jean Fraser, City of Portland Planner  
**FROM:** Dan Goyette, PE – Development Review Engineer, Woodard & Curran, Inc.  
**DATE:** December 6, 2006  
**RE:** Morningstar Lane Subdivision

---

Woodard & Curran has reviewed the latest submission for the proposed project for the Morningstar Lane Subdivision. The project involves the development of a 10 lot residential from an existing 5.7 acre parcel.

**Documents Reviewed**

- Response to Comments prepared by Thomas Emery, Land Use Consultants, dated November 28, 2006 to Jean Fraser.
- Stormwater Management Report prepared by Thomas Emery, Land Use Consultants, dated November 27, 2006.
- Engineering sketch plan prepared by Land Use Consultants, sheet SK-1 dated November 27, 2006.

**1. Stormwater Management**

- A. The applicant has modeled the existing upstream and downstream stormwater collection systems to determine what impacts the proposed development will have on the existing collection system as requested. The modeling has demonstrated that the development will result in a minimal increase in stormwater runoff. The increase in stormwater from the development can be handled in two ways. One is to construct a stormwater detention basin within the development. This would require a large amount of regrading and clearing of the site. The second option is to discharge the stormwater into the existing stormwater detention basin located adjacent to Lester Drive. This option would not require the large amounts of clearing and regrading. The increase in flow into the existing stormwater collection system would have no impact on its current operation.

**2. General**

- A. A cursory review of the sketch plan does not raise any obvious problems. Obviously a more detailed plan will be required to perform a thorough review.
- B. A Class B High Intensity Soil Survey has not been submitted for review.

DRG  
203848.66

cc: File

Attachment 8a

**From:** "Thomas Errico" <terrico@wilbursmith.com>  
**To:** "Jean Fraser" <JF@portlandmaine.gov>  
**Date:** 12/6/2006 3:28:33 PM  
**Subject:** Morning Star Lane Subdivision

Jean -

The current site plan depicts a relocated site driveway. I support this relocation, subject to a review of design details on the layout.

Please contact me if you have any questions.

Thomas A. Errico, P.E.  
Senior Transportation Engineer  
Wilbur Smith Associates  
59 Middle Street  
Portland, Maine 04101  
w: 207.871.1785 f: 207.871.5825  
TErrico@WilburSmith.com  
www.WilburSmith.com

**CC:** "James Carmody" <JPC@portlandmaine.gov>

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#2002 #800  
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514.828

TREE PROTECTION FRONT YD SETBACK  
TREE PROTECTION OR ADDED OFFSET FOR BUFFER

USE LEDGE MATERIAL TO MIN WETLAND FILL FOR ROAD  
N/F Grace Baptist Church 3145/382

- NOTES:**
- PAVEMENT SHALL BE REMOVED TO THE LIMITS SHOWN PRIOR TO CONSTRUCTION. PAVEMENT SHALL BE REMOVED AND REBUILT AS INDICATED ON PLAN & PROFILE PLAN, DRAWING # PRIOR TO FINAL ACCEPTANCE.
  - TOPOGRAPHIC INFORMATION FROM A GROUND SURVEY BY TITMOB ASSOCIATES DATED JULY 2006.
  - EXISTING UTILITIES HAVE NOT BEEN DETECTED OR LOCATED BY SURVEY WITHIN AREA OF TREE CUT AS SHOWN. HOWEVER, CONTRACTOR SHALL PROCEED WITH CAUTION WHEN WORKING IN THIS AREA TO AVOID POTENTIAL UNCHARTED UTILITIES OR SERVICES.
  - UTILITIES AND LOCATIONS SHOWN ON THIS PLAN ARE ASSUMED BASED ON ORIGINAL DESIGN DRAWINGS, FIELD LOCATION SURVEY BY SCS SURVEYORS, AND ARE NOT BASED ON "AS-BUILT" INFORMATION, EXCEPT AS SHOWN. ASSUMED LOCATIONS ARE INDICATED BASED ON LIMITED INFORMATION PROVIDED BY UTILITIES LOCATION DETECTION CONTRACTORS, AS MARKED IN THE FIELD.
  - EXISTING TREES TO REMAIN SHALL NOT BE REMOVED OR DAMAGED BY CONSTRUCTION. EQUIPMENT LIMITS OF TREES TO REMAIN IN THE FIELD IN ACCORDANCE WITH TOWN OF PORTLAND REQUIREMENTS. THINNING OR CUTTING OF OVERHEAD BRANCHES SHALL BE PERFORMED ONLY WHERE APPROVED BY ENGINEER AND SHALL BE PERFORMED BY A CERTIFIED TREE EXPERT.
  - EXISTING SIGNS SHALL BE REMOVED AND REINSTALLED. LOCATIONS TO BE DETERMINED BY ENGINEER.
  - REFER TO DETAIL SHEETS FOR LANDSCAPE PRESERVATION AND MAINTENANCE NOTES.
  - ITEMS INDICATED "TO BE REMOVED" (TR) SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO COMMENCING WORK ON AFFECTED AREAS. ITEMS REMOVED SHALL REMAIN PROPERTY OF CONTRACTOR AND SHALL BE DISPOSED OF OFFSITE, UNLESS OTHERWISE NOTED TO BE RELOCATED, REUSED, PRESERVED OR TO REMAIN AS PROPERTY OF OWNER.
  - CONTRACTOR SHALL COORDINATE REMOVALS WITH OWNER. CERTAIN PORTIONS OF THE SITE MAY BE DEVELOPED IN PHASES, DEPENDING ON MARKET CONDITIONS AND SPECIFIC SCHEDULING REQUIREMENTS TO BE DETERMINED BY OWNER PRIOR TO CONSTRUCTION. THEREFORE, CERTAIN ITEMS, INDICATED HEREON, TO BE REMOVED, MAY REMAIN IN PLACE, OR IN SERVICE, TEMPORARILY, UNTIL SUCH ITEMS ARE REQUIRED TO BE REMOVED FOR SCHEDULED CONSTRUCTION.
  - ALL ITEMS NOT INDICATED TO BE REMOVED SHALL REMAIN, UNLESS OTHERWISE INDICATED OR DIRECTED BY OWNER.
  - EXISTING UTILITIES ABANDONED OR PARTIALLY REMOVED SHALL BE PERMANENTLY CAPPED, FLOODED OR TERMINATED IN ACCORDANCE WITH UTILITY COMPANIES STANDARDS OR RECOMMENDATIONS.
  - WETLANDS DELINEATED BY MARK HAMPTON ASSOCIATES, INC. DATED JULY 2006.



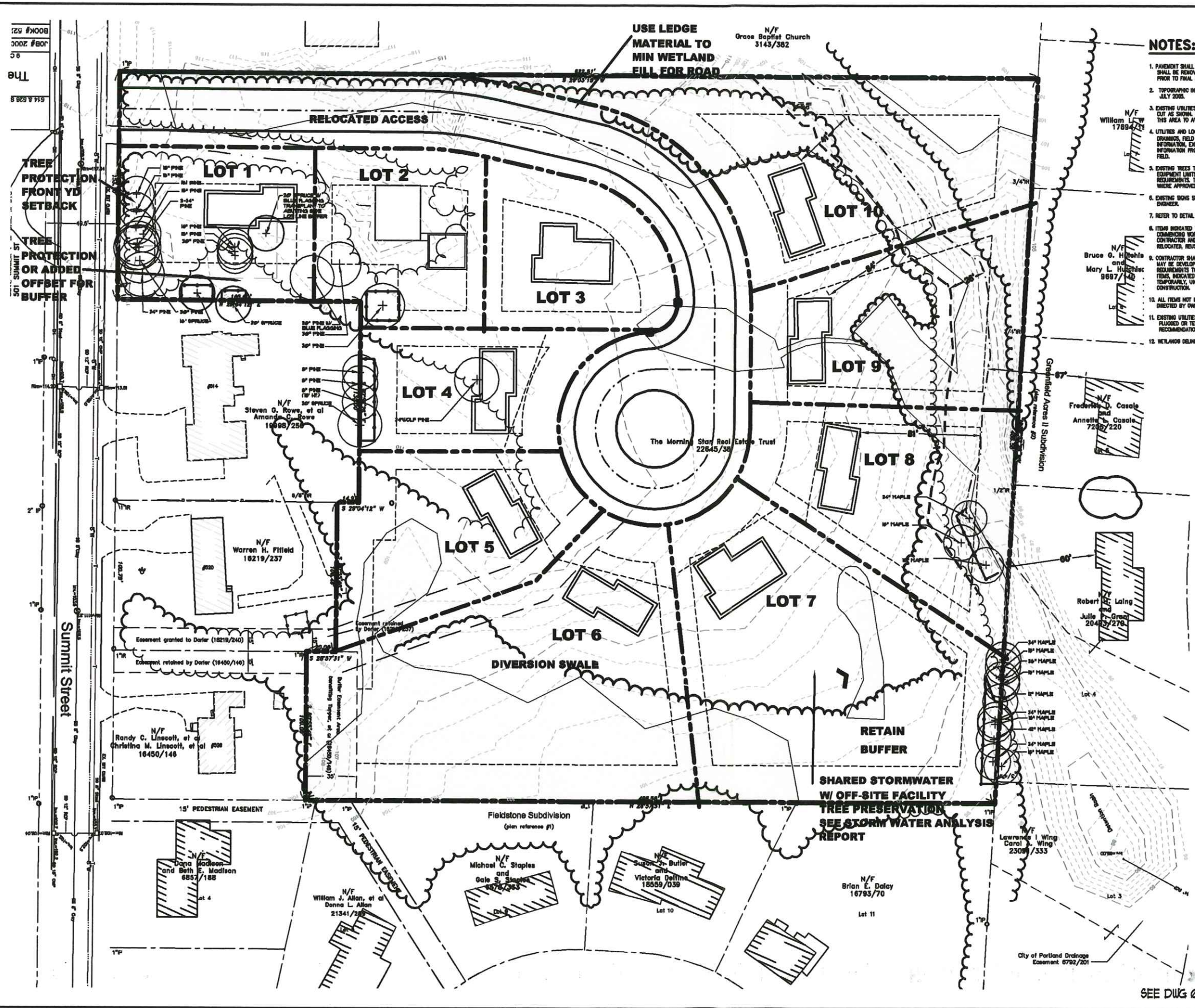
MORNINGSTAR LANE  
SUMMIT STREET, PORTLAND, MAINE  
PREPARED FOR:  
MORNINGSTAR REAL ESTATE TRUST  
9 CRAIGIE STREET  
PORTLAND, MAINE 04102

Revision	Date
DESIGNED PER MAINTENANCE REVIEW COMMENTS	6-24-06
DRAWN PER MAINTENANCE REVIEW COMMENTS	6-24-06
CHECKED PER MAINTENANCE REVIEW COMMENTS	6-24-06
SCALE PER MAINTENANCE REVIEW COMMENTS	6-24-06
AT FIELD LOCAL, ALBANY, MONTAUNE, VERMONT	6-24-06

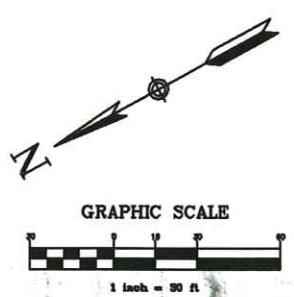
Designed	LDH
Drawn	TDG
Checked	TNE
Scale	1" = 30'
Date	6-24-06

PRELIMINARY  
REVISED SUBDIVISION  
SKETCH PLAN

Job No. 2897.1  
Drawing  
SK-1



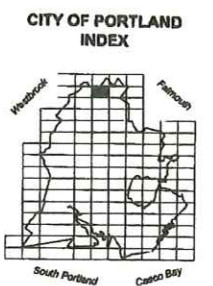
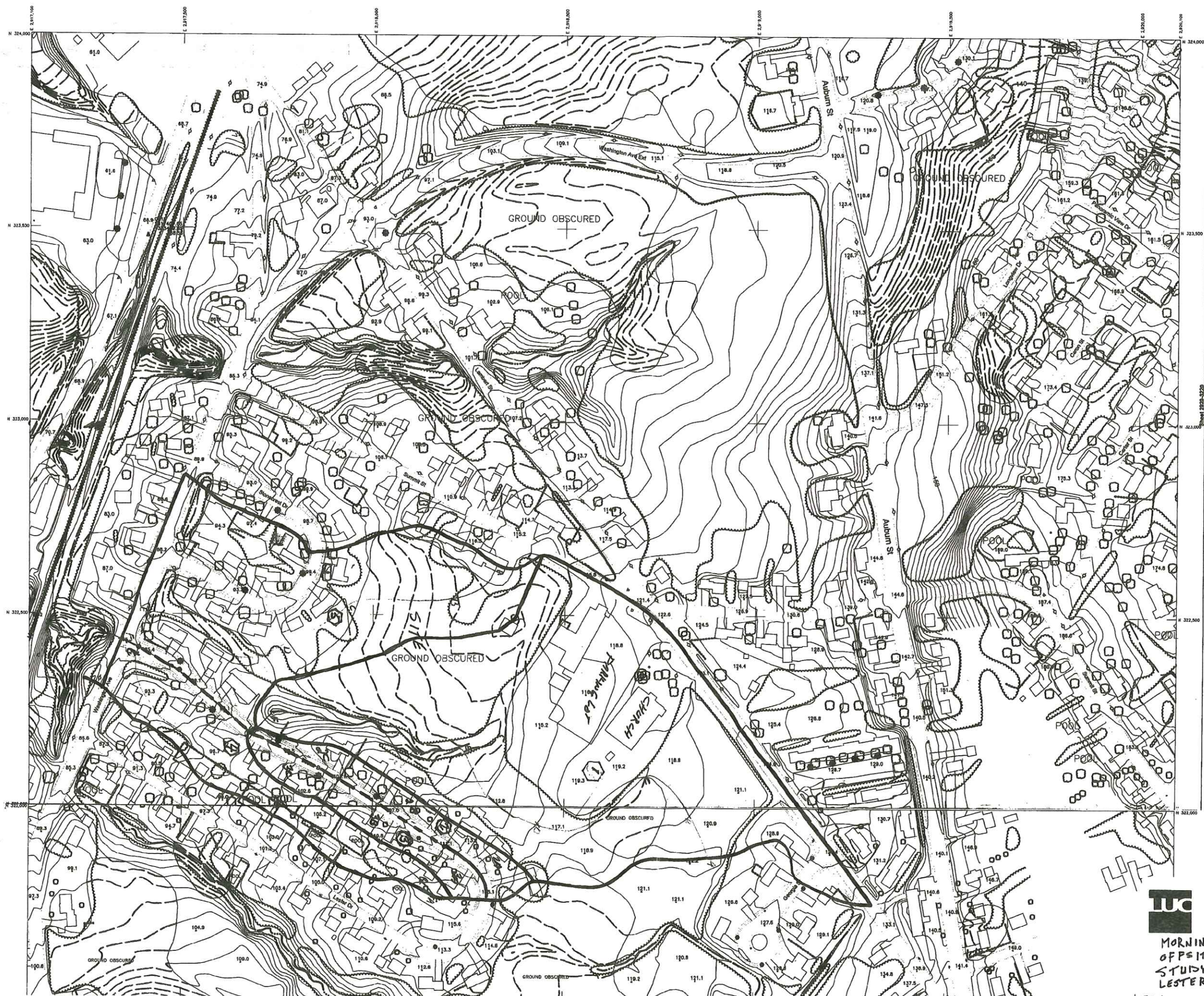
**PROGRESS PLAN  
NOT FOR CONSTRUCTION**  
THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.



SEE DWG 0 FOR LEGEND & GENERAL NOTES.

submitted with  
LUC letter of 11.28.06

CITY OF PORTLAND, MAINE  
MAP SHEET 2917-3220  
MORNINGSTAR LANE OFFSITE DRAINAGE STUDY  
LESTER DR. AREA



Sheet Index

2914-3240	2917-3240	2920-3240
2914-3220	2917-3220	2920-3220
2914-3200	2917-3200	2920-3200

(submitted with LUC letter of 11.28.06)

North



Land Use Consultants, Inc.  
engineers - planners - architects  
100 WATER STREET PORTLAND MAINE 04101

MORNINGSTAR LANE  
OFFSITE DRAINAGE  
STUDY  
LESTER DR. AREA

MAP SHEET 2917-3220

Memorandum  
Department of Planning and Development  
Planning Division



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**To:** Chair Beal and Members of the Portland Planning Board

**From:** Jean Fraser, Planner

**Date:** October 19, 2006

**Re:** October 24, 2006 Planning Board Workshop  
Morning Star Lane Sub division, vicinity of Summit Street  
Morningstar Real Estate Trust, Applicant

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### **Introduction**

On behalf of the Morningstar Real Estate Trust, Land Use Consultants has requested Sub division review of the proposal for an 11 lot subdivision off of Summit Street near its intersection with Lambert Avenue (adjacent to the Grace Baptist Church). The proposal includes a new 500+ foot long access road with cul de sac, a new detention pond, and associated sidewalks, lighting and landscaping.

The site is currently a wooded parcel abutting residential properties on three sides and the Grace Baptist Church on the fourth side. The site is within the R-2 zoning and includes a watercourse and extensive wetlands.

The proposal is being reviewed in relation to both Subdivision and Site Plan Review Requirements in view of the complex infrastructure proposed (drainage basin).

### **Project Summary**

Site Area: 5.68 acres (247,421 sq ft)  
Zoning: R- 2  
Proposed lot sizes: 11 single family lots ranging from 10,132 sq ft to 31, 873 sq ft.

### **Project Site**

The site is a single block of land to the rear of Summit Street, Stonecrest Drive and Lester Drive, having a frontage of 153 feet along Summit Street adjacent to the Grace Baptist

Church. It generally slopes southwest towards Lester Drive and is almost completely wooded with more pine nearer to Summit Street and more deciduous trees within the site.

Large areas around the perimeter of the site are delineated as wetland, including a “drainage” watercourse along the southern boundary.

### **Public Outreach and Consultation**

The proposal has been noticed to 179 neighbors and interested citizens. Representations have been received from 6 individuals, including detailed letters from immediate abutters at 514 Summit Drive (Attachment 6b) and from the abutter at 135 Lester Drive jointly with neighbor at 64 Lester Drive (Attachment 6c). In addition the District 5 City Councilor has also commented on 9.6.2006 (Attachment 8). A petition signed by 48 local residents “Opposed to Another Residential Development Project Within District 5” was received on 10.18.2006 (Attachment 7). These representations will be referred to in the review below.

### **Proposals**

The applicants originally submitted proposals for the 11 lot subdivision in October, 2005 (Application included as Attachment 1) at which time many issues were raised by both staff and neighbors as outlined in the staff letter of November 23, 2005 (Attachment 2). Revised proposals were submitted in August, 2006 which addressed some of these issues as described in the letter from LUC dated July 26, 2006 and Supplementary Information Document (Attachment 3).

The proposed subdivision involves construction of a new access road off of Summit Street and creation of 11 wedge shaped single family lots. The lots vary in size from near the minimum allowed by zoning to over 3 times that minimum so that wetland areas are preserved at the rear of the house lots. The site is proposed to be graded so that drainage is captured either by the new piped drainage system associated with the new cul de sac, or by a new detention basin proposed at the corner where the site is adjacent to an existing detention basin on Lester Drive.

A sidewalk has been proposed for one side of the access drive and along Summit Street from the access road to the site boundary, and then east along summit Street to the site boundary. Tree saves have been identified near Summit Street and some landscaped buffers have been included.

### **Subdivision Review Issues**

#### Water and Air Pollution

There is no air pollution anticipated to result from this proposal. Some degree of water pollution is likely to be created comprising additional “urban” runoff containing oil and other chemicals (eg salt) from driveways and streets.



## Utilities

The applicant is proposing public sewer and water. A capacity letter was received from Portland Water District on 9.26.2006 (Attachment 9); a capacity letter in respect of sanitary waste is awaited.

Public Works has reviewed the sewer connections easement and has some minor comments (Attachment 11h). There seem to be an overlap of easements at the rear of No 526 Summit Street.

## Access

The original submission included a 24 foot wide road access road constructed from Summit Street, which has been widened to 28 feet in the revised submission.

The road is 500+ feet in length, ending with a cul de sac which meets City Fire and maintenance standards. A 5 foot esplanade and 5 foot sidewalk are included on the north side of the proposed access road.

A Traffic Study has been submitted (Attachment 3) which addresses concerns regarding the sightlines and safety issues related to the creation of a new access for 11 homes at that location. The City's Traffic Reviewer considers the road location acceptable but in view of the speeding problems along that stretch of Summit Street has recommended that the applicant contribute \$5000 to traffic calming improvements on summit Street between Lambert Street and Washington Avenue (Attachment 11f).

While there is no opportunity to connect this new street to any of the other existing streets, it would be possible to create pedestrian links if the Planning Board considers these should be pursued. Portland Trails have recently established a trail through a 5 acre wooded parcel near this site at the rear of the Grace Baptist Church, which ties in with trails and natural open space within the Ball Park subdivision area. A pedestrian link could be provided (say between proposed lots 5 and 6) to allow for a link from this subdivision to this extensive trail network.

This has not been pursued in detail with the applicant as there were so many fundamental issues yet to be resolved.

## Sanitary Sewer/Soils/Stormwater

### *Sanitary Sewer*

The applicant proposes a new "cross country sewer within a 30 foot sewer easement. At one place the easement appears to be less than 30 feet because another easement overlaps and this will need to be addressed.

## *Stormwater/Drainage*

The applicant is proposing a detention pond at the rear of Lot 8 as part of a drainage system that is summarized by the applicants engineer in Attachment 12a. The lots are graded so that the front yards generally drain into the new street and runoff is collected by new catch basins into the piped system. The rear part of the lots drain into the existing wetlands as at present, with a drainage ditch proposed to be created in the southeast part of the site to direct runoff to the proposed detention basin. The detention basin allows the increased run off from the increased areas of impervious surface to be retained so that the post-development flows will be maintained at the pre-development flow rate.

The detention pond measures approximately 10,000 sq ft in area and is 4 feet deep; it has been designed to keep slopes at or below 3:1. It is not lined and is termed a “dry detention basin” because it will only have water in it for a few hours after heavy rainfalls. It is understood to have been designed to meet the City of Portland’s flooding standard and includes an outlet control structure and emergency spillway, with a level spreader on the site boundary where the water enters the adjacent existing detention area. The applicant has suggested they will provide 30 foot maintenance easements to the City for the proposed detention pond (Attachment 3). The City considers that the maintenance responsibilities will belong to the homeowners, for which an association may be required. The City will have maintenance rights in the case of a system failure, with financial recourse to the home owners.

Storm water runoff from the proposed detention basin enters the City’s storm drain system via a private (in different ownership from the applicant) existing detention area immediately adjacent to the proposed detention basin (see photograph in Attachment 15a). This area, although termed a detention basin on the plans, is a natural swale which does not have an outlet control structure; it discharges into the Citys drainage system via an uncontrolled culvert outlet near Lester Drive which then discharges into an open drainage channel via a culvert under Washington Avenue. The applicant has not demonstrated, through modeling of the downstream piping, that the proposal will not lead to downstream flooding and further information is required (Attachment 11g).

The City has a drainage easement for the swale area which includes rights for maintenance and for the creation of a detention pond and related works (copy attached to letter in Attachment 13). The applicant will require City agreement to the proposed revisions to the drainage system as it relates to the use of the existing detention area.

Staff have requested documentation of the rights of the applicant to artificially collect the surface water and direct increased volumes of water into the existing private detention area adjacent to the site, particularly with the outflow being right at the boundary. The applicant has submitted a legal view (Attachment 13) outlining the applicants’ rights.

Staff consider that the letter does not address the fact that the proposals are significantly altering the drainage system from a natural one comprising overland infiltration and sheet flow to an artificial system where flows are channeled to a single point, with an increase

in volumes of stormwater. Staff recommend that the outflow (level spreader) be relocated at least 30 feet back from the site boundary to allow greater infiltration and more indirect flow via the wetlands. This would provide a visual buffer for the drainage structure from adjacent properties and would allow maintenance at the level lip spreader to occur on the project site. Also, if there is any downstream channelization instead of the intended sheet flow, the buffer area will allow grading corrections to be made on the project site. The creation of a buffer between the proposed detention pond and the site property line would also reduce disturbance to the nearby watercourse (its status and the question of setbacks is discussed below).

An alternative approach would be to upgrade the existing detention area adjacent to the site so that it operates as a detention basin, thus avoiding the need for a detention basin within the site and the associated site disturbance. At this time staff do not know what this would entail in terms of legal arrangements and construction works.

### Scenic Beauty

The site is largely wooded with mature pines and deciduous trees over most of the site, including large "old" stands abutting surrounding house lots (see Photographs in Attachment 15a). The whole of the Summit Street frontage is wooded with mature pines and a few deciduous trees; the pines are a continuation of the row of large pines which characterize this stretch of Summit Street.

The Context and Vicinity maps included in Attachment 15 illustrate the scale of vegetation on this site and how it fits into the corridor of wooded areas to the north and the south of the site. While the site does comprise areas of mature tree groves and was considered by the Land Bank Commission in February 2006 (Attachment 4), it was not proposed to be added to their priority list given the limit on resources available.

The combination of the proposed road, extensive grading associated with drainage, and the location of the detention basin results in a substantial loss of mature trees as viewed from public streets and adjacent houses. Most of the representations received identify the adverse impact on the mature and character-defining vegetation as a serious concern with the proposed subdivision. The City Arborist has outlined his concerns in an e-mail dated 9.28.2006 (Attachment 11e).

Concerns about the excessive loss of vegetation have been discussed with the applicants and center on three issues:

1. The proposed large detention pond located in the southwest corner of the site as part of the wider drainage system. To create this detention pond in this location a large area (some .3 acre) of existing mature vegetation, mainly oaks, is lost. These trees form the backdrop for the homes on Stonecrest Drive and Lester Drive, as seen in Photograph 3 (Attachment 15a).

The applicant has addressed this issue in their letter of 10.10.2006 (Attachment 12) which indicates that several maples appear to be savable if grading is carried out carefully but otherwise limited reinstatement planting along the southwest and southeast boundaries of the detention basin are proposed.

Staff considers that the location and size of the detention basin has an adverse impact on the natural beauty of the area and that existing significant trees along the periphery of the site should be retained. The location, shape and size of the detention pond could be revised to achieve increased preservation of existing trees.

2. The frontage of the site onto Summit Street has also been the subject of discussions between staff (City Arborist) and the applicant regarding the scope for saving the significant white pine stands between the Grace Baptist Church and 514 Summit Street (see Photographs in Attachment 15). The current proposal does save some of the trees nearest the Church property but the proposed access road location cuts through some of the most substantial trees (the most affected abutter at 514 Summit Street has made detailed representations (Attachment 6b)).

The width of the frontage between the property line of 514 Summit Street and the boundary of the site with Grace Baptist Church is 153 feet in total. The proposals show the 50 foot road ROW immediately adjacent to 514 Summit Street, with Lot 1 being 103 feet deep (side to Summit Street). Within the road ROW is a 12 foot "buffer" to 514 Summit Street, a 28 foot wide paved road, a 5 foot esplanade, and a 5 foot sidewalk. The applicant has proposed replacement and buffer planting between the road and the property line of 514 Summit Street (in the ROW).

The applicant was requested to explore an option that relocates the road (entire ROW) to avoid the trees at the corner of Summit Street and the abutter's property. It appears this would require relocation of the ROW by about 8 to 13 feet to avoid several of the largest pines at this location as shown in Attachment 12c (it would not save any groups of pines). Moving the road increases the encroachment of the ROW into Lot 1 and that lot is already constrained by the wetlands between it and Grace Baptist Church. The applicant did not pursue this option.

Staff also asked the applicant to consider "swapping" the road and Lot 1 to see if this generated any benefits in terms of tree saves, with Lot 1 being turned 90 degrees so that the front of the house faced Summit Street with an 80 foot wide lot. The applicant has not submitted a plan, but it is understood this would save more of the trees along Summit Street in the front and side yard of the proposed house. These could be designated "tree saves" in the hope that a future property owner would retain them. The twenty feet reduction in the Summit Street frontage of the house lot would allow trees to be retained between the ROW and the boundary with the church and to achieve sight line distances from the new access looking east.

Attachment 12 includes a description of this alternative approach which is understood to result in an additional 2000 sq feet of wetland needing to be filled

(bringing the total wetland area to be filled to about 7000 sq ft, still within a Tier 1 MDEP Permit). This submission also states that it would result in one less house lot being possible on the site but staff are unable to verify this as no plan has been submitted. The applicant also looked at relocating the road so that it was immediately adjacent to the Church property but this impacts a further 8000 sq ft of wetlands, according to the applicant. We have not yet seen a layout of the various options.

3. The city standard requires “where possible, existing significant vegetation shall be preserved to achieve desired landscaping” and the City Arborist has indicated that the proposal is deficient in this respect (Attachment 11e). The proposal shows the majority of the wetlands as being undisturbed and the applicant has given a verbal assurance that these areas can be identified as “tree saves/no cut zones” on the subdivision plat although the submission does not include this proposal at present.

Elsewhere the extent of grading to achieve drainage benefits appears to preclude tree-saves between and on house lots; reinstatement planting has not been identified at this stage except for the required two (2) street trees per lot. Staff considers that additional tree saves between and on the lots and landscaping within the cul de sac should be included in the revised proposals, along with “no cut zones”.

#### Financial Capability

The letter of financial capability is attached in Attachment 3.

#### Groundwater/Flood Hazard/Shoreland/Wetlands

##### *Wetlands*

The proposal is not located in the Flood Hazard or Shoreland Zone.

Wetlands have been delineated on the site and make up about 30% of the site (about 75,000 sq ft of wetlands). These are associated with the watercourse/drainage channels that edge the site.

Staff requested on-site verification of the wetland delineation and this took place in November, 2005 with the Army Corps of Engineers attending and advising; the ACoE confirmation of the delineation is enclosed at Attachment 10).

The proposal to create 11 lots along the new central drive allows the majority of the wetlands to remain at the rear of the house lots. The proposal involves filling some 7425 sq ft of wetland area (to be confirmed) for driveways and infrastructure and grading and the applicant has applied for a Tier 1 Permit from the MDEP.

## *Watercourse*

The City requested that the applicant clarify the position regarding the watercourse on the site (which can be seen on the Context Map in [Attachment 15c](#)). The DEP requires that any disturbance activity within 75 feet of a stream or brook be subject to review under a NRPA Permit by Rule process. The applicant submitted a permit by rule application and it is understood that the MDEP requested further information to clarify the status of the water course. The applicant engaged Woodlot Alternatives to assess the watercourse and provide further information to the MDEP (received 10.18.2006 by the City and included in [Attachment 14](#)).

The City has learned ([Attachment 14](#)) (confirmed by a telephone conversation between Jean Fraser and Linda Kokemuller of the MDEP) that the MDEP has made a determination that this watercourse is not a stream as defined by the NRPA Act (Title 38 MRSA Sec.480-B, subsection 9). The determination was informed by information from Woodlot Alternatives Inc. (also in [Attachment 14](#)) as well as site visits and is not appealable. With this determination, no NRPA permit by rule filing is required.

An abutter has indicated ([Attachment 6c](#)) that they consider the watercourse to be flowing year round; this would suggest it could be classified as a perennial stream. They intend to submit supporting information, which may need review by Woodlot Alternatives Inc. and the MDEP. The Army Corps of Engineers representative who walked the site in November, 2005 (when reviewing the wetland delineation) has confirmed that he considers the watercourse an intermittent stream ([Attachment 10](#)). The watercourse is not shown at all on the USGS and Soil Survey maps.

The Planning Board could take a different view from the MDEP. Staff consider that in view of the differing "expert" opinions the watercourse may be considered an intermittent stream and in that case 25 foot buffers are required by the City. The current proposal avoids any disturbance within the 25 foot buffers (shown as the inner dashed line on Plan 5 in [Attachment 16](#)) except for the proposed detention pond and its outlet structures. As pointed out by the City's Reviewing Engineer ([Attachment 11g](#)), the watercourse continues to flow close to the property line before entering the existing detention basin, and therefore the proposed detention pond and associated works/structures would need to be relocated at least 25 feet from the property line to avoid impact on this watercourse.

The applicant has submitted an Erosion Control Plan (also in [Attachment 16](#)). The applicant has confirmed that slope stability should not be a problem as slopes are no steeper than 3:1 and will be stabilized with loam and seed ([Attachment 3, page 3](#)).

### **Site Plan Review Issues**

These issues have generally been covered by the analysis under subdivision Review Issues.

It should be noted that the current proposal does not meet the Site Plan review criterion that requires adequate buffering between the development and neighboring properties nor does it minimize, to the extent feasible, any disturbance or destruction of significant existing vegetation.

### **Conformity with Zoning Ordinance (R-2)**

The layout of the proposed lots has been reviewed by the Zoning Administrator and her comments are included in Attachment 11a&d.

### **Conclusion and Recommendations**

Staff consider that the proposed subdivision has not yet demonstrated compliance with City standards in relation to the drainage proposals and preservation of existing vegetation and landscaping, as indicated in the foregoing discussions of related issues of concern.

This memorandum has focused on key issues and there remain a large number of detailed matters to be discussed and resolved once these key issues are clarified. Detailed matters would include points raised by City reviewers in Attachment 11 as well as points raised by neighbors.

#### Attachments :

1. Original Application dated October 4, 2005 (note applicant has been revised)
2. Staff letter dated November 23, 2006
3. LUC letter and Supplementary Information dated July 26, 2006 and received August 15, 2006; includes Right, Title and Interest documents, letter of financial capability, Traffic Study, and Stormwater Analysis (full version not included in all copies of the Memorandum)
4. Minutes of the Land Bank Commission Meeting of February 2, 2006
5. Staff letter dated August 31, 2006
6. Correspondence and Representations from Neighbors
  - a) Michael and Gale Staples, e-mail dated August 21, 2006
  - b) Steven and Amanda Rowe, of 514 Summit Street, dated October 18, 2006
  - c) Mary L.Hutchinson (135 Lester Drive) and Pamela M.Burnside (64 Lester Drive), dated October 18, 2006
7. Petition (undated) received October 18, 2006
8. James I. Cohen, District 5 City Councilor, letter dated September 6, 2006
9. LUC letter dated September 22, 2006 responding to 8.31.2006 staff letter, including PWD capacity letter dated September 26, 2006
10. Army Corps of Engineers (Rodney Howe) e-mails dated September 29, 2006 and October 19, 2006 confirming re wetland delineation and intermittent stream
11. Staff Comments
  - a. Zoning Administrator Memo dated August 22, 2006

- b. Fire Department comments in e-mail dated August 28, 2006
  - c. DRC Dan Goyette, Woodard & Curran, Memo of August 29, 2006
  - d. Zoning Administrator e-mail dated September 27, 2006
  - e. City Arborist e-mail dated September 28, 2006
  - f. City Traffic Engineering Reviewer (Tom Errico) e-mail of October 18, 2006
  - g. DRC Dan Goyette, Woodard & Curran, Memo dated October 18, 2006
  - h. City of Portland Public Works e-mail dated October 18, 2006, with detail memo of October 11, 2006
12. LUC letter of October 10, 2006
- a) Summary of drainage system
  - b) Planting proposals for two locations
  - c) Options for location of new road access
13. Perkins Thompson Attorneys and Counselors at Law (on behalf of applicant), letter dated October 10, 2006 re legal rights to drain into existing detention basin
14. LUC e-mail of October 16, 2006 with information re watercourse and Woodlot Alternatives, Inc Note of October 17, 2006
15. Staff context information
- a. Photographs showing existing vegetation
  - b. Vicinity Map
  - c. Context Map
16. Plan Set (14 sheets)



## City of Portland Site Plan Application

If you or the property owner owes real estate taxes, personal property taxes or user charges on any property within the City of Portland, payment arrangements must be made before permit applications can be received by the Inspections Dept.

<b>Address of Proposed Development:</b> Summit Street		<b>Zone:</b> R2
<b>Total Square Footage of Proposed Structure:</b> N/A		<b>Square Footage of Lot:</b> N/A
<b>Tax Assessor's Chart, Block &amp; Lot:</b> Map 385 Lot 1	<b>Property owner, mailing address:</b> Tim Flaherty 625 Bridgton Road Westbrook, Maine 04092	<b>Telephone:</b> 207-797-8585
<b>Consultant/Agent, mailing address phone &amp; contact person :</b> Land Use Consultants, Inc. Attn: Thomas N. Emery, RLA 966 Riverside Street Portland, ME 04103 (207)878-3313	<b>Applicant name, mailing address &amp; telephone:</b>  Morning Star, LLC 625 Bridgton Road Westbrook, Maine	<b>Project name:</b>  Morning Star Lane

**Proposed Development (check all that apply)**

- New Building   
 Building Addition   
 Change of Use   
 Residential   
 Office   
 Retail   
 Manufacturing  
 Warehouse/Distribution   
 Parking lot  
 Subdivision (\$500) + amount of lots 11 @ (\$25.00 per lot) \$ 775  
 Site Location of Development (\$3,000)  
(except for residential projects which shall be \$200.00 per lot \$ \_\_\_\_\_)  
 Traffic Movement \$1,000   
 Stormwater Quality (\$250.00)  
 Section 14-403 Review (\$400.00) + \$25.00 per lot, [(\$400 + 32 Lots(\$25/Lot)] = \_\_\_\_\_  
 Other \_\_\_\_\_

**Major Development (more than 10,000 sq. ft.)**

- Under 50,000 sq.ft. (\$500.00)  
 50,000 – 100,000 sq.ft (\$1,000.00)  
 Parking Lots over 100 spaces (\$1,000.00)  
 100,000 – 200,000 sq.ft (\$2,000.00)  
 200,000 – 300,000 sq.ft (3,000.00)  
 Over 300,000 sq.ft (\$5,000.00)  
 After-the-fact Review (\$1,000.00 + applicable application fee)

**Minor Site Plan Review**

- Less than 10,000 sq.ft (\$400.00)  
 After-the-fact Review (\$1,000.00 + applicable application fee)

**Plan Amendments**

- Planning Staff Review (\$250.00)  
 Planning Board Review (\$500.00)

-Please see next page-

Who billing will be sent to: Morning Star, LLC  
Mailing address: 625 Bridgton Road, Westbrook, Maine 04092

Submittals shall include (9) separate folded packets of the following:

- a. copy of application
- b. cover letter stating the nature of the project
- c. site plan containing the information found in the attached sample plans check list

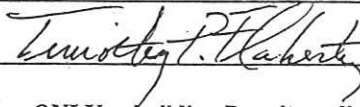
**Amendment to Plans:** Amendment applications should include 6 separate packets of the above (a, b, and c)

**ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM**

Section 14-522 of the Zoning Ordinance outlines the process; copies are available at the counter at .50 per page (8.5 x11) you may also visit the web site: [ci.portland.me.us/chapter\\_14](http://ci.portland.me.us/chapter_14)

*I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.*

Signature of applicant:



Date: 10/4/05

This application is for site review **ONLY**, a building Permit application and associated fees will be required prior to construction.

### Development in Portland

The City of Portland has instituted the following fees to recover the costs of reviewing development proposals under the Site Plan and Subdivision ordinances: application fee; engineering fee; and inspection fee. Performance and defect guarantees are also required by ordinance to cover all site work proposed.

The **Application Fee** covers general planning and administrative processing costs, and is paid at the time of applications.

The Planning Division is required to send notices to neighbors upon receipt of an application and prior to public meetings. The applicant will be billed for mailing and advertisement costs. Applicants for development will be charged and Engineering Review Fee. This fee is charged by the Planning Division for review of on-site improvements of a civil engineering nature, such as storm water management as well as the engineering analysis of related improvements within the public right-of-way, such as public streets and utility connections, as assessed by the Department of Public Works. The Engineering Review fee must be paid before a building permit can be issued. Monthly invoices are sent out by the Planning Division on a monthly basis to cover engineering costs.

A **Performance Guarantee** will be required following approval of development plans. This guarantee covers all required improvements within the public right-of-way, plus certain site improvements such as landscaping, paving and drainage improvements. The Planning Division will provide a cost estimate form for figuring the amount of the performance guarantee, as well as sample form letters to be filled out by a financial institution.

An **Inspection Fee** must also be submitted to cover inspections to ensure that sites are developed in accordance with the approved plan. The inspection fee is 2.0% of the performance guarantee amount, or as assessed by the planning or public works engineer. The minimum inspection fee is \$300 for development, unless no site improvements are proposed. Public Works inspects work within the City right-of-way and Planning inspects work within the site including pipe-laying and connections. (The contractor must work with inspectors to coordinate timely inspections, and should provide adequate notice before inspections, especially in the case of final inspection.)

Upon completion of a development project, the performance guarantee is released, and a **Defect Guarantee** in the amount of 10% of the performance guarantee must be provided. The Defect Guarantee will be released after a year.

Other reimbursements to the City include actual or apportioned costs for advertising and mailed notices. All fees shall be paid prior to the issuance of any building permit.

For more information on the fees or review process, please call the Planning Division at 874-8719 or 874-8721.

**CITY OF PORTLAND, MAINE  
SITE PLAN CHECKLIST**

Morning Star Lane Summit Street

Project Name, Address of Project

I.d. Number

Submitted ( ) & Date

Item Required Information

Section 14-525 (b,c)

<u>  X  </u>	(1)	Standard boundary survey (stamped by a registered surveyor, at a scale of not less than 1 inch to 100 feet and including:	I
<u>  X  </u>	(2)	Name and address of applicant and name of proposed development	a
<u>  X  </u>	(3)	Scale and north points	b
<u>  X  </u>	(4)	Boundaries of the site	c
<u>  X  </u>	(5)	Total land area of site	d
<u>  X  </u>	(6)	Topography - existing and proposed (2 feet intervals or less)	e
<u>  X  </u>	(7)	Plans based on the boundary survey including:	2
<u>  N/A  </u>	(8)	Existing soil conditions	a
<u>  X  </u>	(9)	Location of water courses, marshes, rock outcroppings and wooded areas	b
<u>  X  </u>	(10)	Location, ground floor area and grade elevations of building and other structures existing and proposed, elevation drawings of exterior facades, and materials to be used	c
<u>  X  </u>	(11)	Approximate location of buildings or other structures on parcels abutting the sited	
<u>  X  </u>	(12)	Location of on-site waste receptacles	e
<u>  X  </u>	(13)	Public utilities	e
<u>  X  </u>	(14)	Water and sewer mains	e
<u>  X  </u>	(15)	Culverts, drains, existing and proposed, showing size and directions of flows	e
<u>  X  </u>	(16)	Location and dimensions, and ownership of easements, public or private rights-of-way, both existing and proposed	f
<u>  X  </u>	(17)	Location and dimensions of on-site pedestrian and vehicular accessways	g
<u>  X  </u>	(18)	Parking areas	g
<u>  X  </u>	(19)	Loading facilities	g
<u>  X  </u>	(20)	Design of ingress and egress of vehicles to and from the site onto public streets	g
<u>  X  </u>	(21)	Curb and sidewalks	g
<u>  X  </u>	(22)	Landscape plan showing:	h
<u>  X  </u>	(23)	Location of existing proposed vegetation	h
<u>  X  </u>	(24)	Type of vegetation	h
<u>  X  </u>	(25)	Quantity of plantings	h
<u>  X  </u>	(26)	Size of proposed landscaping	h
<u>  X  </u>	(27)	Existing areas to be preserved	h
<u>  X  </u>	(28)	Preservation measures to be employed	h
<u>  X  </u>	(29)	Details of planting and preservation specifications	h
<u>  X  </u>	(30)	Location and dimensions of all fencing and screening	i
<u>  X  </u>	(31)	Location and intensity of outdoor lighting system	j
<u>  X  </u>	(32)	Location of fire hydrants, existing and proposed	k
<u>  X  </u>	(33)	Written statement	c
<u>  X  </u>	(34)	Description of proposed uses to be located on site	l
<u>  X  </u>	(35)	Quantity and type of residential, if any	l
<u>  X  </u>	(36)	Total land area of the site	b2
<u>  X  </u>	(37)	Total floor area and ground coverage of each proposed building and structure	b2
<u>  X  </u>	(38)	General summary of existing and proposed easements or other burdens	b2
<u>  X  </u>	(39)	Method of handling solid waste disposal	c3





# PORTLAND MAINE

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**Planning and Development Department**  
Lee D. Urban, Director

**Planning Division**  
Alexander Jaegerman, Director

November 23<sup>rd</sup>, 2005

Thomas N. Emery, RLA  
Land Use Consultants, Inc  
966 Riverside Street  
Portland, ME 04103

Dear Mr. Emery,

**Re: Site Plan Review: Morning Star Subdivision off Summit Street**  
**Our Ref: 2005-0232**

Further to my letter of October 13<sup>th</sup>, 2005 I now write to outline other issues arising that need to be addressed in your revised proposals.

1. Please correct the subdivision plat plan as five names appear to be incorrect.
2. At present two different developers are indicated, with two different financial letters. In our telephone conversation of October 24<sup>th</sup>, 2005, you stated that this would be clarified soon and this information is awaited.
3. Please show the location of buildings on the abutting lots, as required in the City's Land Use Ordinance Section 14-525 (b)(2)d and item 11 on the Checklist. It would also be helpful to show the buildings opposite the proposed road access, as the occupiers may be affected by the location of the access road (see 6b. below)
4. The City seeks to preserve significant vegetation wherever possible. Given the large size of existing trees, the density of the existing planting and the associated wildlife habitat, we would want to ensure that disturbance to existing trees is minimized and that significant planting is protected. It would be helpful in considering the proposed layout to have a plan showing the location of significant existing trees, based on a discussion with the City's Arborist. To this end, I confirm the meeting on site next week on Tuesday, Nov 29<sup>th</sup> 2005 with the City Arborist and myself.

11. The proposed retention basin and other aspects of storm-water management raise a number of substantial concerns, as set out in the attached note from the City's Peer Review Engineer Jim Seymour. These will need to be addressed before the Site Plan Review can be completed.

Sincerely,



Jean Fraser  
Planner, City of Portland

Cc Morning Star LLC (Tim Flaherty)  
City Engineer (Eric Labelle)  
City Review Engineer (Jim Seymour)  
City Traffic Engineer (Tom Errico)



05P232

**TO:** Jean Fraser – Planner  
**FROM:** James Seymour P.E. – Development Review Engineer, Sebago Technics, Inc.  
**RE:** Morning Star Subdivision – Morning Star, LLC-Summit St, Portland, ME  
**DATE:** October 24, 2005

---

Sebago Technics has reviewed the Morning Star Subdivision plan submittal for Morning Star, LLC from Land Use Consultants, Inc. and dated October 4th, 2005. After reviewing this submittal, we have the following concerns:

**1. Stormwater Management**

- A. The proposed drainage system as designed within the proposed roadway raises several questions:
- a. A large increase of drainage volume entering the City pipe system and detention pond in Lester Drive has not been accurately modeled. The submitted calculations look exclusively at the impacts by the proposed development and do not account for the function of the volume retained and size of the discharge outlet pipe of the existing detention pond and other downstream pipes. We request that the pond be analyzed to find with more certainty what occurs at the existing pond outfall as a result of volume increase and changes in the time of concentration as a result of this development. All downstream pipe/culvert systems shall be reviewed to assure no capacity issues exist. This could include drains crossing Washington Ave., which eventually discharge to the Presumpscot River.
  - b. All utility and drainage easements to be serviced and maintained by the City shall be 30 feet in width. No access easement has been shown over the entire distance to the pond outlet control structure. The outlet control structure is on the far side of the pond from the development, and the outfall must discharge to direct the pond outflow against the natural flow heading into the existing Detention Pond basin. We recommend the pipe flow be set between Lots 8 and 9 such that the outfall and outlet control structure can be easily accessed from the 10 wide service/access to the pond on the spillway pond corner, closer to the cul-de-sac.

- B. The Ordinance requires 28 feet of pavement not 24 feet of pavement please adjust the design for grading and stormwater calculations.
- C. We have no concerns with the sidewalk and esplanade as shown for one side of the street. There are currently no sidewalks on Summit Street, but are proposed for the future, and lower sections of Summit St are bituminous curbed. No waiver criteria information was passed on per City ordinance to evaluate.
- D. The applicant is responsible for sidewalk and granite curbing on the owner's frontage on Summit Street, too Based on our discussions with the City Engineer, the extension of the sidewalk and curb to the Lambert Street intersection, shall be considered by the Board, as future projects will be placing sidewalks to this corner.

3. **Grading/Erosion Control**

- A. Typical erosion control measures should be shown and included for the individual lot construction. Swales and ditches shall be protected from individual lot construction.
- B. What will the silty excavated material from the site be used for? Will it be hauled off site, or used on the lots? Please include typical details for lot filling with specifications for the fill type and placement.
- C. There appears to be wetland filling adjacent to a possible intermittent stream within 75 feet, which could require a Permit by Rule. Please indicate how wetlands were mapped (field survey or GPS).
- D. Calculations for riprap sizing of pond pipe outlets, aprons and swales shall be provided based on proposed discharge velocities. Methods for sizing shall follow best management practices (BMP's) for erosion control measures.

4. **Utility Installation/Location**

- A. Standard capacity letters from the Sewer Division are required and the minimum sewer main size is 8-inches and services shall be of 6-inch diameter.
- B. The cross-country sewer from Sta. 3+75 to Summit St. must be contained in a 30-foot wide easement. The easement is now clouded by a buffer easement at a turning point at the rear of the Tupper lot. This shall be resolved. Also cross-country manhole rim elevations shall be elevated two feet above grade.
- C. The Portland Water District shall support the terminus layout (curve) of the water main as well. The layout appears impractical to construct in such a tight radius. Also, the engineer shall layout utilities in corridors as established by Public Works latest standard for a 28-foot wide road cross section.
- D. Underdrains should be shown in the plan and profile views of the roadways. The underdrain shall wrap around the cul-de-sac turnaround.





July 26, 2006

2897

Ms. Jean Fraser  
 City Planner  
 Department of Planning & Urban Development  
 City Hall  
 289 Congress Street  
 Portland, ME 04101

p l a n n e r s  
 e n g i n e e r s  
 l a n d s c a p e  
 a r c h i t e c t s

**Morningstar Lane Subdivision Summit Street (Planning Bd. Workshop Review stage).  
 Responses to Review Comments November 23, 2005**

Dear Jean:

The following are responses to Sebago Technics engineering peer review comments dated October 24, 2005 and to staff comments dated November 23, 2005. Lynwood Myshral, PE has provided the responses related to engineering review. As you are aware, there has been a transition in the development entity. We are now responding to comments provided last November. Attached are 9 sets of revised plans dated June 9, 2006 for further staff and engineering review.

**Responses to Jean Fraser Comments**

1. The subdivision plat plan has been revised to reflect the correct abutters' names.
2. One developer is now involved in the project. The Developer is Morningstar Real Estate Trust, 9 Craigie Street, Portland, ME 04102
3. The location of buildings on the abutting lots has been added to the drawings.
4. A meeting with the city Arborist was held at the site last autumn. We agreed to relocate an existing fir tree, and to explore options for mitigating the impact on the large pines near Summit Street. As discussed we will relocate the fir tree to the rear behind the adjacent property to add to the buffer. However, the road has at the requirement of the City been widened from 24 ft to 28 ft. making the preserving of the large pines unfeasible. We will provide a buffer between the access drive and the abutting property.
5. The wetland delineations have been field verified with Mr. Hampton and regulators and revised on the plans.
6. a.) There should not be increased flows to abutting property due to this development. The development has been designed to collect over 95 % of flows from the new impervious areas and more than 84% of flows from the developed areas. Ditches have been provided to intercept runoff from



entering properties adjacent to the western property line. The intercepted runoff will be directed to the on-site detention pond.

b) The access road if relocated eastward would result in the loss of at least three lots thus making the development economically unfeasible.

7. The roadway has been widened to from 24 ft. to 28ft.
8. The owner will be happy to meet with the Review Engineers at their request.
9. The owner will add a sidewalk to the Summit St. frontage from the easterly sideline to the easterly edge of our entrance road.
10. The proposed cross-country sewer is located in a 30' easement. The easement is indicated on the drawings.
11. The detention pond has been revised and is designed to meet the City of Portland's "flooding standard".

#### Responses to Sebago Technics Comments

##### 1. Stormwater Management

###### A. Proposed roadway drainage design:

a) The pond has been designed to meet the City of Portland's flooding standard. The post development flows from the development have not been increased over the predevelopment flows entering the city's storm drain system. This development is not increasing downstream flows, therefore, downstream is not in danger of flooding due to runoff from this development.

b) The owner will provide 30' easements to the City to maintain the detention pond. The detention pond has been revised and the outlet control structure and emergency spillway relocated as recommended. Easements are indicated on the drawings.

c) The street storm drain has been revised so as not to be so deep.

d) Drainage easements will be provided as required.

B. As the plan indicates no house is being constructed in a wetland. Wetlands are being filled to construct driveways and infrastructure and for grading. A Tier 1 permit is being filed with the DEP for wetland filling.

- C. Slope stability should not be a concern slopes are no steeper than 3:1 and will be stabilized with loam and seed. Foundation drains will be connected to the storm drain or day lighted.
- D. Daylight basements will be at the option of the homeowner and builder. Several of the lots are suitable for daylight basements. Generally, in a subdivision water drains to the street or to the sides and rear of the lots. Due to the configuration of the site and the topography the homeowner will be very limited in the degree of changes to the site grading.
- E. The detention pond is discharging into an existing pond that does not have treatment or an outlet control structure. The existing pond has a culvert outlet that discharges into the city's storm drain system.

## **2. Road Access/Circulation**

- A. The cul-de-sac had been adjusted to meet City Standards. Slope granite curb will be used on the inside island.
- B. The road has been widened to 28 feet.
- C. No response
- D. The applicant will request a waiver of this request to extend a sidewalk to Lambert St. intersection..

## **3. Grading/Erosion Control**

- A. Typically, individual lot construction will require an individual site plan, which will include erosion controls.
- B. Silt material will more than likely be utilized on site for grading and filling by mixing with imported materials.
- C. A Permit by Rule is being prepared for submission to the DEP.
- D. Calculations for rip rap attached.

## **4. Utility Installation/Location**

- A. Standard capacity letters are included, and the sewer main is 8-inches and the laterals are 6-inches.
- B. The easement for the sewer will be resolved for final approval. The manhole rims are to be 2' above grade.
- C. The water line layout has been revised and the utilities have been laid out per City standards.
- D. Underdrains have been added to the Plan and Profile drawing.



**5. Details**

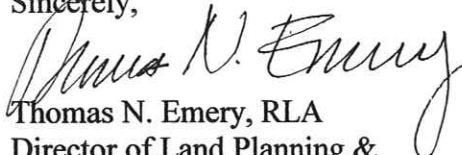
The details missing have been added to the detail sheets. The detention pond is a dry pond 4 feet deep, therefore, should not require a fence.

**6. General**

The general notes have been addressed or will be addressed on the final Subdivision Plan.

We trust this response letter addresses the review comments. Please contact our office with any questions you may have concerning our response to the review letter for this project.

Sincerely,

  
Thomas N. Emery, RLA  
Director of Land Planning &  
Landscape Architecture

Encl            Drawings      Revised Date June 16, 2006  
                  Calculations

cc:             Ronald Dorler

## *Table of Contents*

Gorham Savings Bank Letter
Mark Hampton Associates, Inc. Letter
Riprap Sizing Calculations
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Short Form Quitclaim Deed with Covenant
Exhibit A Quitclaim Deed
Easement Deed
Traffic Impact Study Report
Stormwater Management Report



# Gorham

SAVINGS BANK

Making your financial world  
a little more comfortable.

July 28, 2006

City Of Portland  
Department of Planning and Development  
389 Congress Street  
Portland, ME 04101

RE: Morningstar Real Estate Trust

To whom it may concern:

Gorham Savings Bank considers Ronald Dorler, Sr. and Morningstar Real Estate Trust to have the financial capacity to finance the proposed 11 lot subdivision project located on Summit Street. This conclusion is based on preliminary review of the project.

Should you need further information, please call 222-1461.

Sincerely,



Jay Kiel  
Senior Business Officer/VP  
Gorham Savings Bank  
Falmouth Officec

CALL CENTER  
(207) 839-4796  
[www.gorhamsavingsbank.com](http://www.gorhamsavingsbank.com)

CLIENT'S COPY

LUC



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

NOV 28 2005

RECEIVED

1896

November 25, 2005

Mr. Rod Howe  
U.S. Army Corps of Engineers  
Maine Project Office  
675 Western Avenue #3  
Manchester, ME 04351

Re: Wetland Delineation Determination, Summit Street, Portland

Dear Rod,

On Wednesday November 16, 2005, you made a determination of the delineation of wetlands on a 6+ acre parcel of land located on Summit Street in Portland. Present at the meeting in addition to you and I were representatives from Land Use Consultants, City of Portland, and the owner. We walked over the delineation I completed in June of 2005 and made a few modifications. The enclosed plan represents the changes made to the wetland delineation based upon our site walk. If you do not agree with the delineation please let me know as soon as possible so that we can discuss the changes. If the plan represents the correct wetland delineation, please contact in writing the City of Portland as soon as possible. Thank you for your time in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark J. Hampton', written in a cursive style.

Mark J. Hampton C.S.S., L.S.E.  
Certified Soil Scientist #216  
Licensed Site Evaluator #263

Cc: Mr. Tom Emery, Land Use Consultants  
Mr. Jim Seymour, City of Portland/Sebago Technics, Inc.





Land Use Consultants Inc.

engineers  
planners  
landscape  
architects

Telcomm  Transmittal  Meeting Notes  Fax  Field Notes  Memo

To: MORNINGSTAR LANE Date: 6-15-06  
PORTLAND, ME Job#: 2897  
 Project: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Pages: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 From: \_\_\_\_\_ cc: \_\_\_\_\_  
 Re: RIPRAP SIZING CALCULATIONS

Urgent  For Review  Please Comment  FYI

POND OUTLET PIPE  
 FROM MAINE BMP'S 2003  
 254R ST. 3.28 CFS  
 SAY 5 CFS FOR 12" PIPE USE 6" RIPRAP  
 USE 8 FT APFON  
 USE Level spreader min length 12 ft  
 EMERGENCY OUTFLOW FROM BMP'S  
 USE DSO, 6"

966 RIVERSIDE STREET  
PORTLAND, MAINE 04103

Voice (207) 878 · 3313  
Fax (207) 878 · 0201  
Email: landuse@landuseinc.net



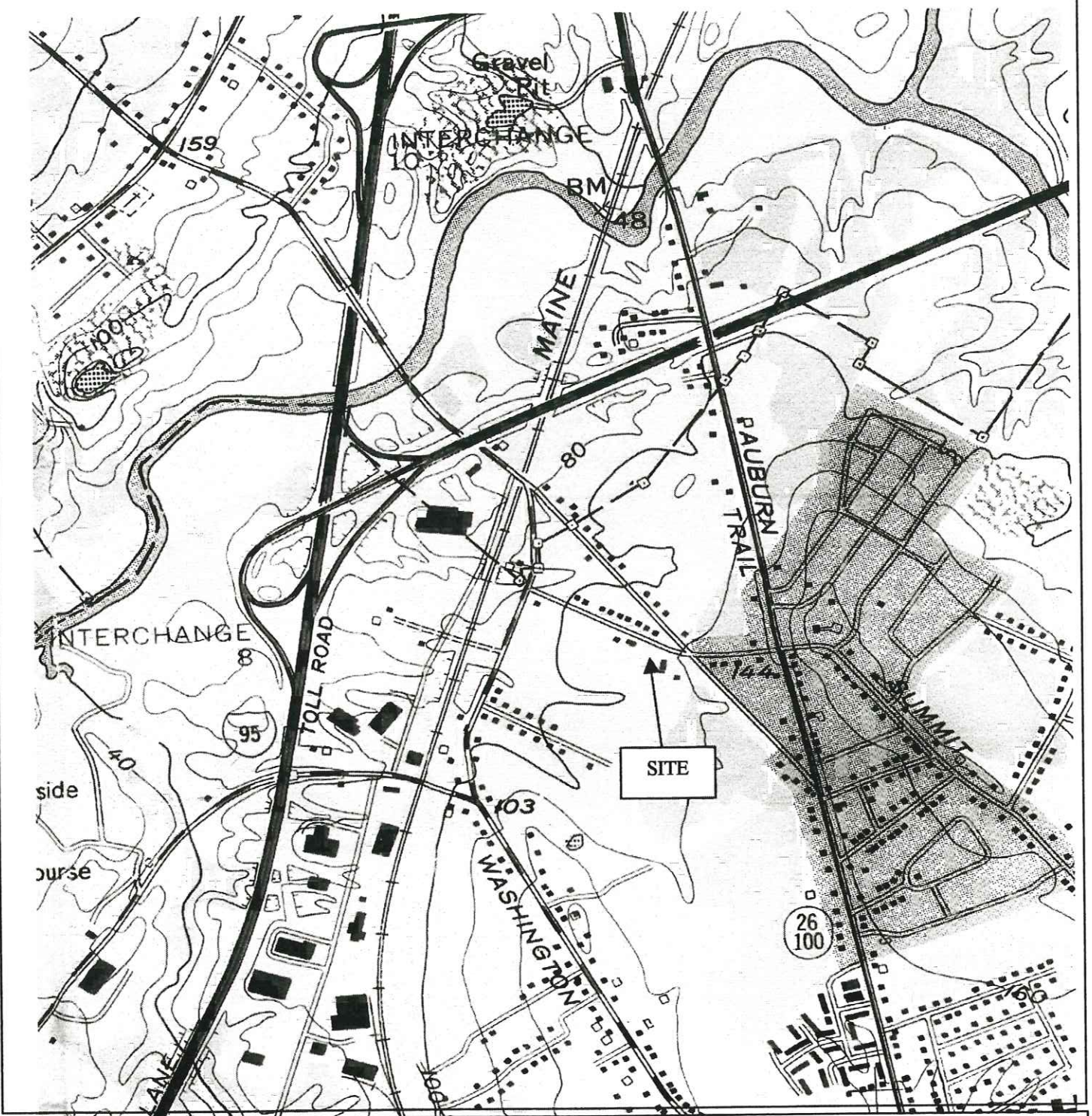




Land Use Consultants, Inc.

- **PREPARED FOR:**  
Morningstar Lane  
Summit Street  
Portland, Maine  
Developer / Applicant: Morningstar  
Real Estate Trust
- **DATE:** 7/2006
- **SCALE:** 1"= 1000'
- **TITLE:**  
**Figure 2 –  
Soils Map**
- **JOB NO:** 2897.1

REFERENCE : USGS, 7.5 Minute Series, Portland



Land Use Consultants, Inc.

▪ **PREPARED FOR:**  
Morningstar Lane  
Summit Street  
Portland, Maine  
Developer / Applicant: Morningstar  
Real Estate Trust

▪ **DATE:** 7/2006

▪ **SCALE:** 1" = 1000'

▪ **TITLE:**

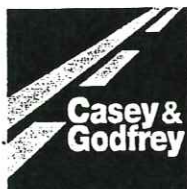
**Figure 1 –  
USGS Locus Map**

▪ **JOB NO:** 2897.1



**Traffic Impact Study**  
**Proposed Summit Street Subdivision**  
**Portland, Maine**

**October 2005**



Prepared by:  
**Casey & Godfrey Engineers**  
**263 Water Street**  
**Gardiner, Maine 04345**

## Introduction

The purpose of this summary report is to assess the traffic and safety impacts of a proposed subdivision in Portland, Maine. The proposed site is located on the southerly side of Summit Street, west of the intersection of Lambert Street, as shown in Figure 1. The proposed Morning Star Lane subdivision will provide for eleven (11) single-family home sites. Site access is proposed as a single drive, Morning Star Lane, to Summit Street, as shown on the preliminary site plan by Land Use Consultants. It was assumed that it would take three years for the subdivision to be constructed and fully occupied so 2008 was used as the study year for traffic analysis purposes.

## Traffic Volumes

Turning movement counts were conducted at the Summit Street intersections of Washington Avenue and Lambert Street during the PM peak hour analysis period on Tuesday, September 27, 2005. The PM peak hour was found to occur in the period from 4:15 to 5:30 PM. The counts were factored to 30<sup>th</sup> highest hour conditions, the hourly volumes used for design and traffic analysis purposes, using published MDOT group mean factors. These 30<sup>th</sup> highest hour volumes generally occur during the PM peak hour under peak summer (late July/early August) conditions in Maine. The resulting volumes are shown in Figure 2. The raw count summaries are included in the appendix of this report.

Existing average annual daily traffic (AADT) data for the area was obtained from "Traffic Volume Counts, 2004, 2001 and 1998 Annual Reports", prepared by MDOT. This data is summarized below:

	Average Annual Daily Traffic							
	1995	1997	1998	1999	2000	2001	2002	2003
Washington Ave., se of Allen Ave.	20500	---	22160	22400	26610	22510	21100	22360
Washington Ave., nw of Allen Ave.	23950	24540	25990	---	---	---	---	---
Auburn Street, north of Summit St.	---	15120	---	---	---	---	11450	---
Auburn Street, nw of Washington	---	---	---	---	19240	---	16550	---
Summit Street, east of Auburn Street	---	---	---	---	---	---	830	---

As can be seen above, traffic volumes in the vicinity of the proposed subdivision have increased at an average annual rate of approximately 1.1 %, during the longer term period 1995 to 2003. Based upon this historical data, a 1.5 % annual growth rate was used to project the existing 2005 volumes to 2008 conditions. The resulting volumes are shown in Figure 3.



**Trip Generation**

Trip generation for the proposed subdivision was obtained using the Institute of Transportation Engineers (ITE) "Trip Generation, 7<sup>th</sup> Edition" report. The calculations were based upon eleven lots, using land use code 210 – single-family homes. The results are summarized below:

<b>PROJECTED TRIP GENERATION</b>	
<u>Time Period</u>	<u>One-way Trips</u>
Weekday	106
AM Peak Hour	9
Entering	2
Exiting	7
PM Peak Hour	11
Entering	7
Exiting	4

As can be seen above, the subdivision will generate a maximum of 11 one-way trips in any hour. This maximum trip generation will occur during the PM peak hour with 7 trips entering and 4 exiting the subdivision. This level of traffic should have no significant impact off-site on traffic operations in terms of capacity. Generally, a project is not considered to have a significant impact unless it generates in excess of 25 trips in any lane in any hour. This project will generate fewer than 10 lane hour trips. The study area was expanded for capacity purposes to include Summit Street from Washington Avenue to Lambert Street, based upon reported concern of cut-through traffic using Summit Street. The trip assignments, shown in Figure 4, were based upon the recorded traffic patterns during the counts.

**Traffic Analysis**

Traffic operations are evaluated in terms of level of service (LOS). Level of service is a qualitative measure that describes operations by letter designation. The levels range from A - very little delay to F - extreme delays. Level of service "D" is considered generally acceptable in urban locations while LOS "E" is generally considered the capacity of a facility and the minimum tolerable level. The level of service for unsignalized intersections is based upon average control delay per vehicle for each minor, opposed movement, as defined in the table below:

<b>Unsignalized Intersection Level of Service</b>	
<u>LOS</u>	<u>Delay Range</u>
A	<= 10.0 seconds
B	> 10.0 and <= 15.0
C	> 15.0 and <= 25.0
D	> 25.0 and <= 35.0
E	> 35.0 and <= 50.0
F	> 50.0

### Unsignalized Intersections

The level of service was calculated for the study area intersections to assure that there is adequate capacity to accept the projected subdivision trips. The results for the PM peak hour are shown with the level of service followed by the delay in seconds in parentheses below:

<b>Intersection Movement</b>	<b>PM Peak Hour Level of Service</b>		
	<u>Existing</u>	<u>No-Build</u>	<u>Build</u>
<b>Washington Avenue and Summit Street</b>			
Westbound Summit Street	B (14.1)	B (14.6)	B (14.7)
Eastbound Summit Street	A (9.3)	A (9.4)	A (9.4)
Southbound Left Turns onto Summit	A (8.1)	A (8.1)	A (8.1)
<b>Summit and Lambert Streets</b>			
Westbound Summit Street	B (13.1)	B (13.5)	B (13.6)
Eastbound Summit Street	B (10.7)	B (10.9)	B (11.0)
Northbound Left Turns onto Summit	A (7.6)	A (7.6)	A (7.6)
Southbound Left Turns onto Summit	A (7.8)	A (7.9)	A (7.9)

As can be seen above, there are no capacity constraints projected in the vicinity of the proposed residential development. All intersection movements are expected to operate at LOS "B" or better under projected 2008 build volumes. The limited number of trips to be generated by the project will have minimal impact on operations as expected, as shown by the similar levels of service and delays for both no build and build conditions.

### Through-Traffic Analysis

It is understood that concern has been expressed regarding the amount of through or cut-through traffic using Summit Street. A total of 106 vehicles were recorded entering Summit Street between Lambert Street and Washington Avenue during the PM peak hour counts. There were 97 vehicles exiting during the PM peak hour for a total of 203 trip-ends. The existing uses within this area of Summit Street, the residential homes on Summit Street and the Grace Baptist Family School, generate approximately 35 PM peak hour trips. Based upon this analysis, there are approximately 168 through vehicle trips on this portion of Summit Street. However, as noted by the analysis, there are no capacity concerns at the unsignalized study area intersections.

**Safety Analysis**  
**Accident Review**

The Maine Department of Transportation uses two criteria to determine high accident locations. The first is the critical rate factor (CRF), which is a measure of the accident rate. A CRF greater than one indicates a location which has a higher than expected accident rate. The expected rate is calculated as a statewide average of similar facilities.

The second criterion, which must *also* be met, is based upon the number of accidents that occur at a particular location. Eight or more accidents must occur over the three-year study period for the location to be considered a high accident location. Accident data was obtained from MDOT for the most recent period, 2002 to 2004, for Summit Street in the vicinity of the project. The number of accidents, their locations and CRF are summarized in the following table:

<u>Location Description</u>	<u># of Acc.</u>	<u>CRF</u>
Intersection of Washington Avenue and Summit Street	1	0.42
Summit Street between Washington and Lambert Street	0	0.00
Intersection of Lambert Street and Summit Street	0	0.00
Summit Street between Lambert Street and Auburn Street	0	0.00
Intersection of Auburn Street and Summit Street	2	0.36

As can be seen above, there are no high crash locations within the vicinity of the proposed residential subdivision. As a result, no further accident review or evaluation is necessary.

**Site Plan Review**

The proposed subdivision is to be served by a single access drive, Morning Star Lane. This drive is to be located approximately 300' from the unsignalized intersection of Lambert Street, providing more than adequate corner clearance. The drive will be approximately 200' feet from the nearest Grace Baptist Church drive, providing for adequate drive spacing.

The proposed subdivision road is 24' wide. There will be a sidewalk on one side separated from the roadway by a 4' esplanade. This roadway width exceeds the 20' minimum urban local road standard in "A Policy on Geometric Design of Highways and Streets, 2001", published by American Association of State Highway and Transportation Officials (AASHTO).

### *Sight Distance*

One of the most important safety factors to consider for a development with limited trip generation, such as this, is sight distance from the drive. This sight distance is measured ten feet back from the edge of the traveled way at a driver's eye height of 3.5 feet to an object height of 4.25 feet. The speed limit is posted on Summit Street in the vicinity of the proposed subdivision at 25 mph. Casey & Godfrey recommend a minimum of 250 feet of sight distance for this posted speed limit.

The available sight distance exceeds 500' feet to the left and is approximately 300' feet to the right to the intersection of Lambert Street. Summit Street in this area is approximately 30' wide and some vehicles were observed to be parking along the street. The sight distances from the drive have the potential to be blocked by on-street parking. It is recommended that on-street parking be prohibited in the immediate vicinity of the drive to assure adequate sight lines.

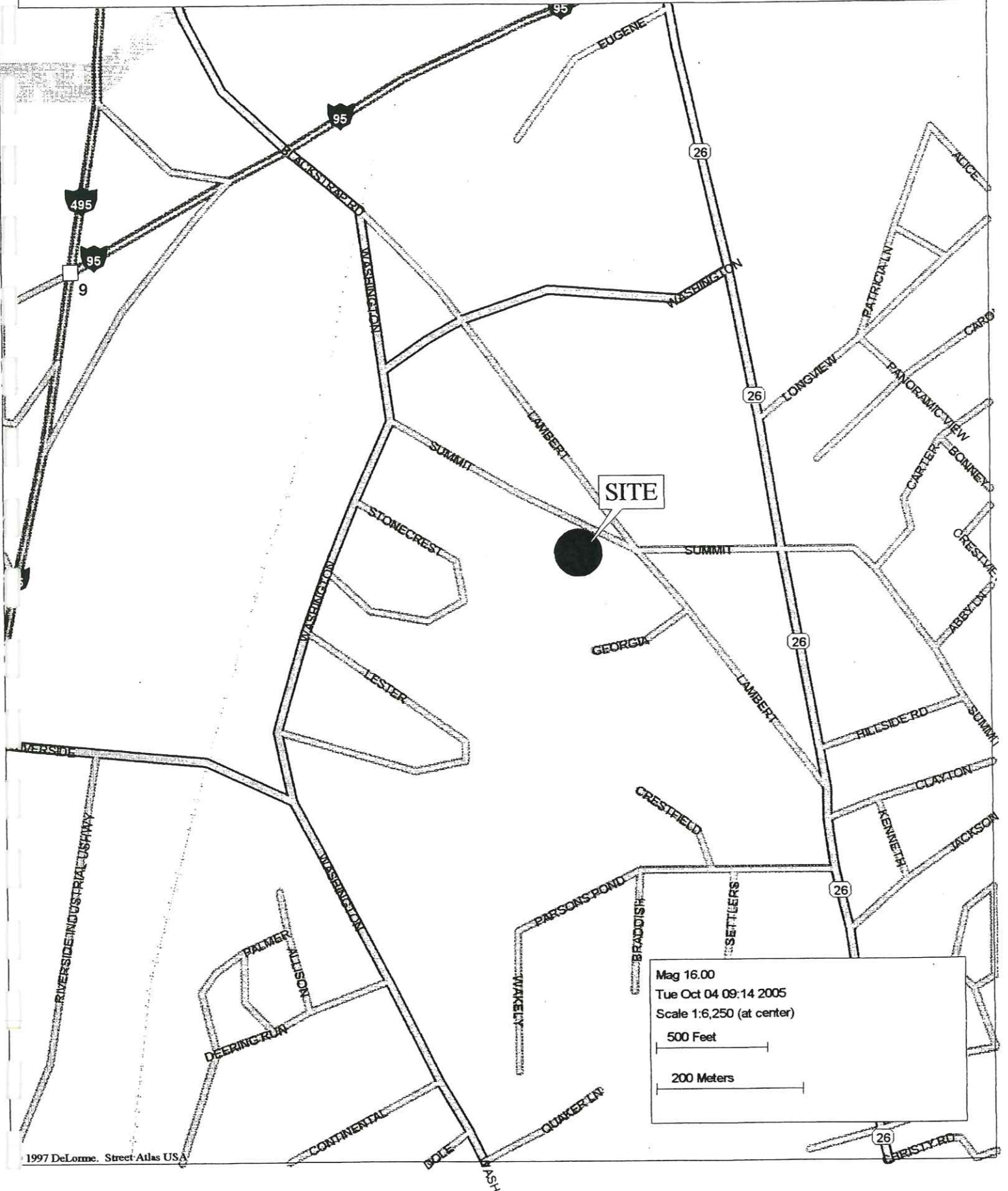
### *SUMMARY*

To summarize, the proposed subdivision will generate a maximum of 11 one-way trips in any hour. Given this trip generation, the project is not expected to have a significant impact off-site on traffic operations. No level of service or capacity constraints were identified by the analysis. Summit Street currently serves both local trips and some through traffic, based upon the count results.

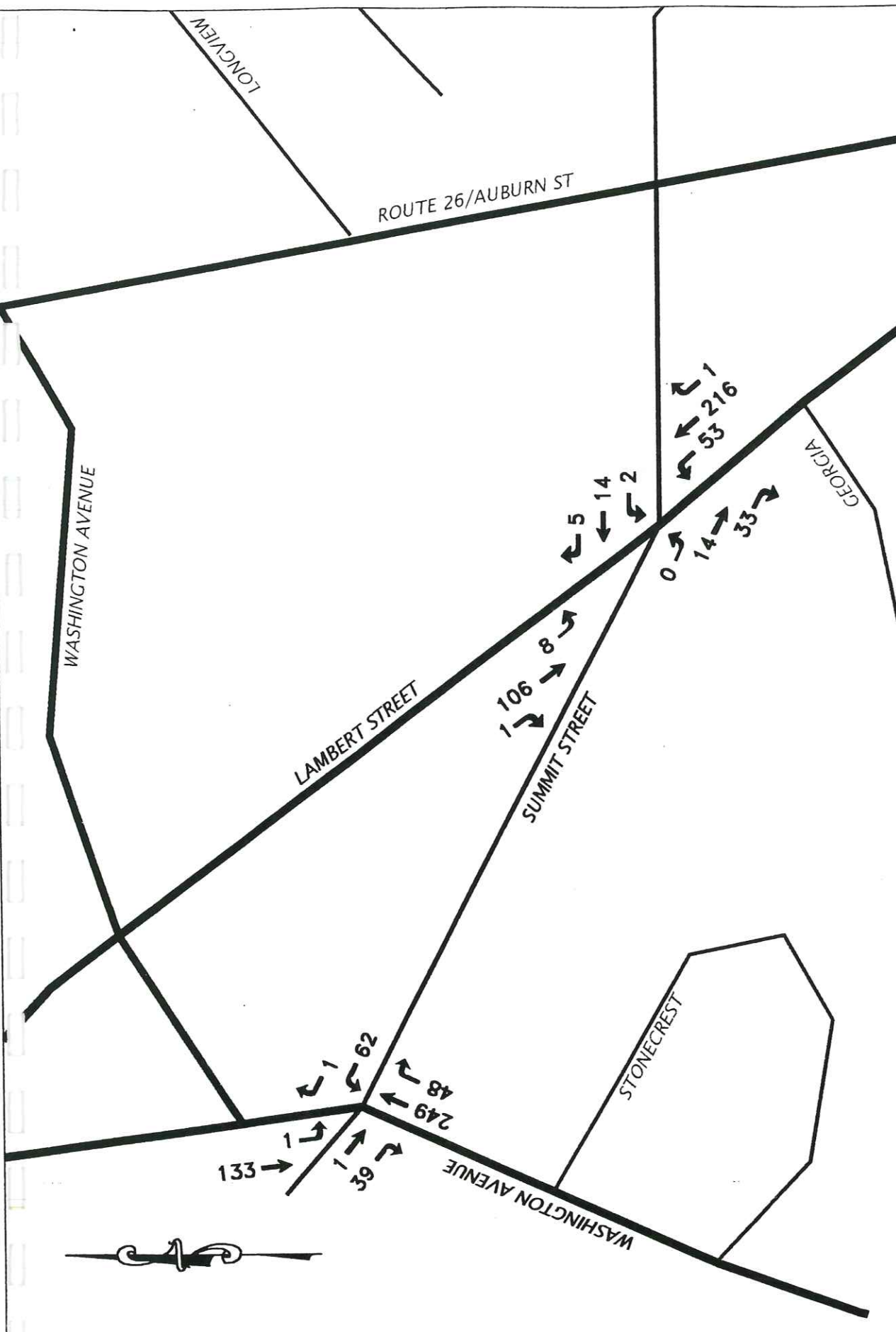
In terms of site design, the proposed roadway width exceeds the minimum AASHTO standard for local urban roadways. More than adequate spacing will be provided to both the Grace Baptist Church drive and Lambert Street.

In terms of safety, there are no high crash locations within the vicinity of the subdivision. Sight distances from the drive will exceed minimum standards but it is recommended that on-street parking be prohibited in the immediate vicinity of the drive to assure adequate sight distances.

# Figure 1 - Site Location Map

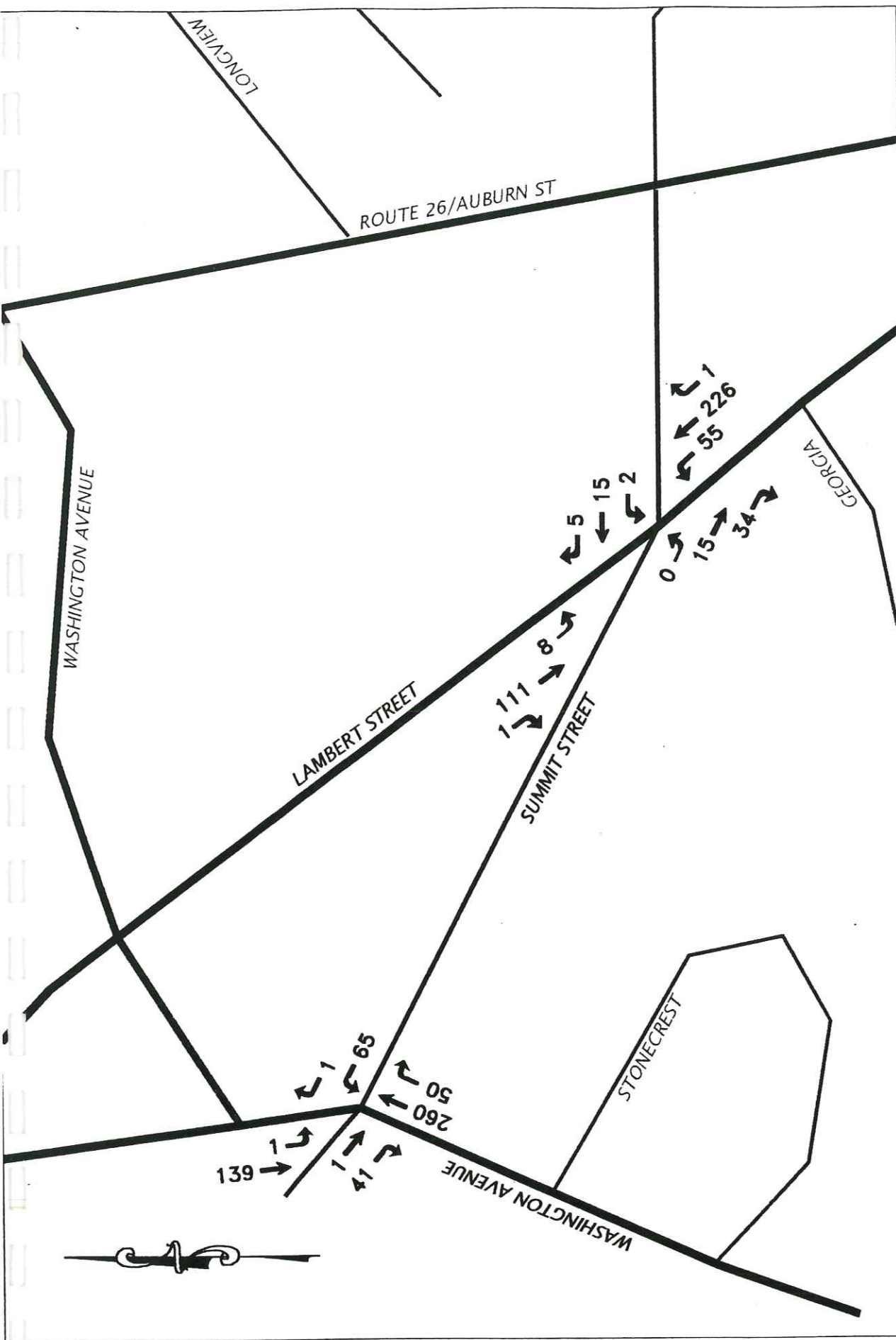


Mag 16.00  
Tue Oct 04 09:14 2005  
Scale 1:6,250 (at center)  
500 Feet  
200 Meters



**Casey Godfrey**  
**Consulting Engineers**  
 263 Water Street  
 Gardiner, Maine 04345  
 tel: (207) 582-4526  
 e-mail: cge@lme.net

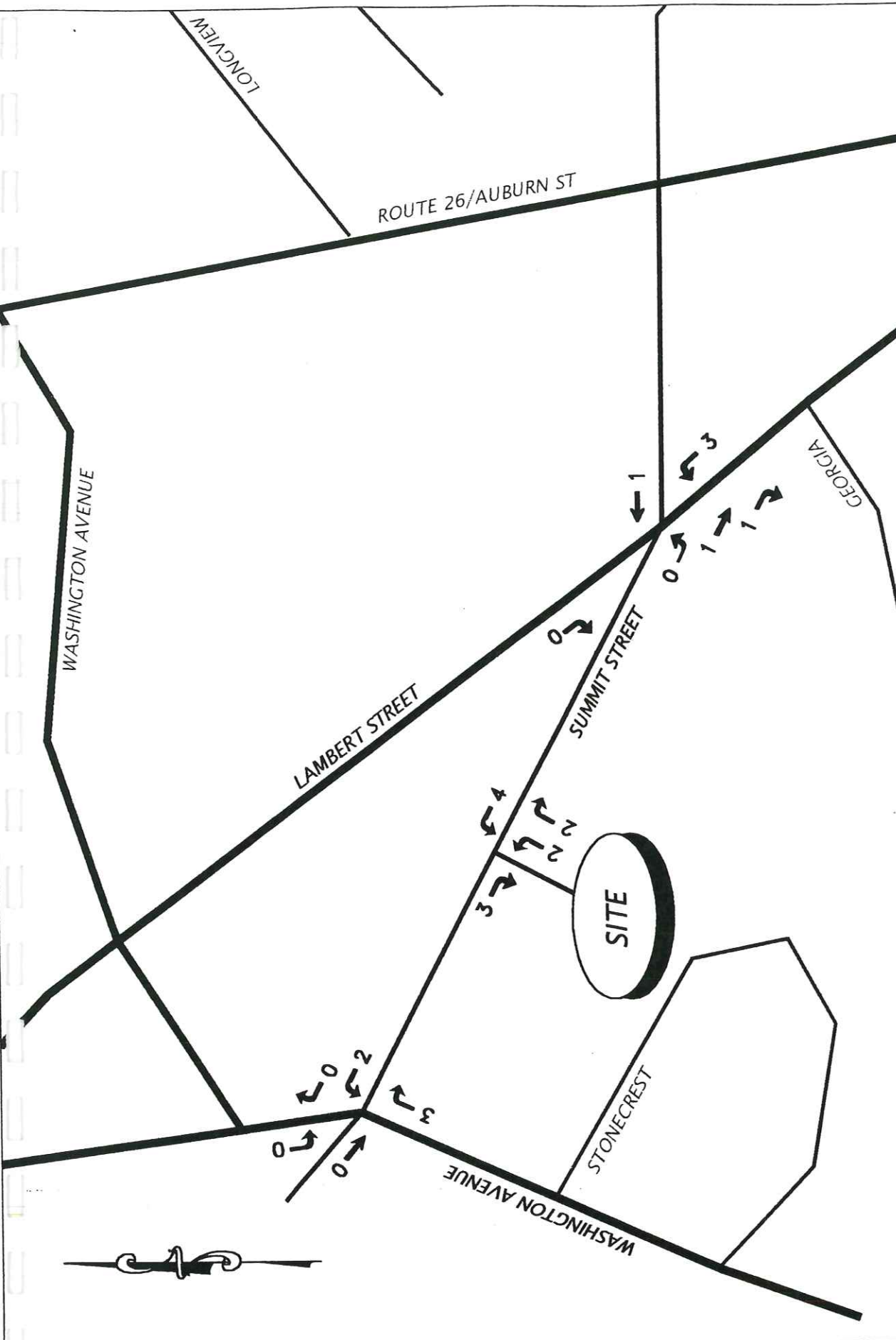
**Figure 2**  
**Portland, Maine**  
**2005 30th Highest Hour Volumes**  
**P.M. Peak Hour**



**Consulting Engineers**  
 263 Water Street  
 Gardiner, Maine 04345  
 tel: (207) 582-4526  
 fax: (207) 582-8526  
 e-mail: cge@lme.net



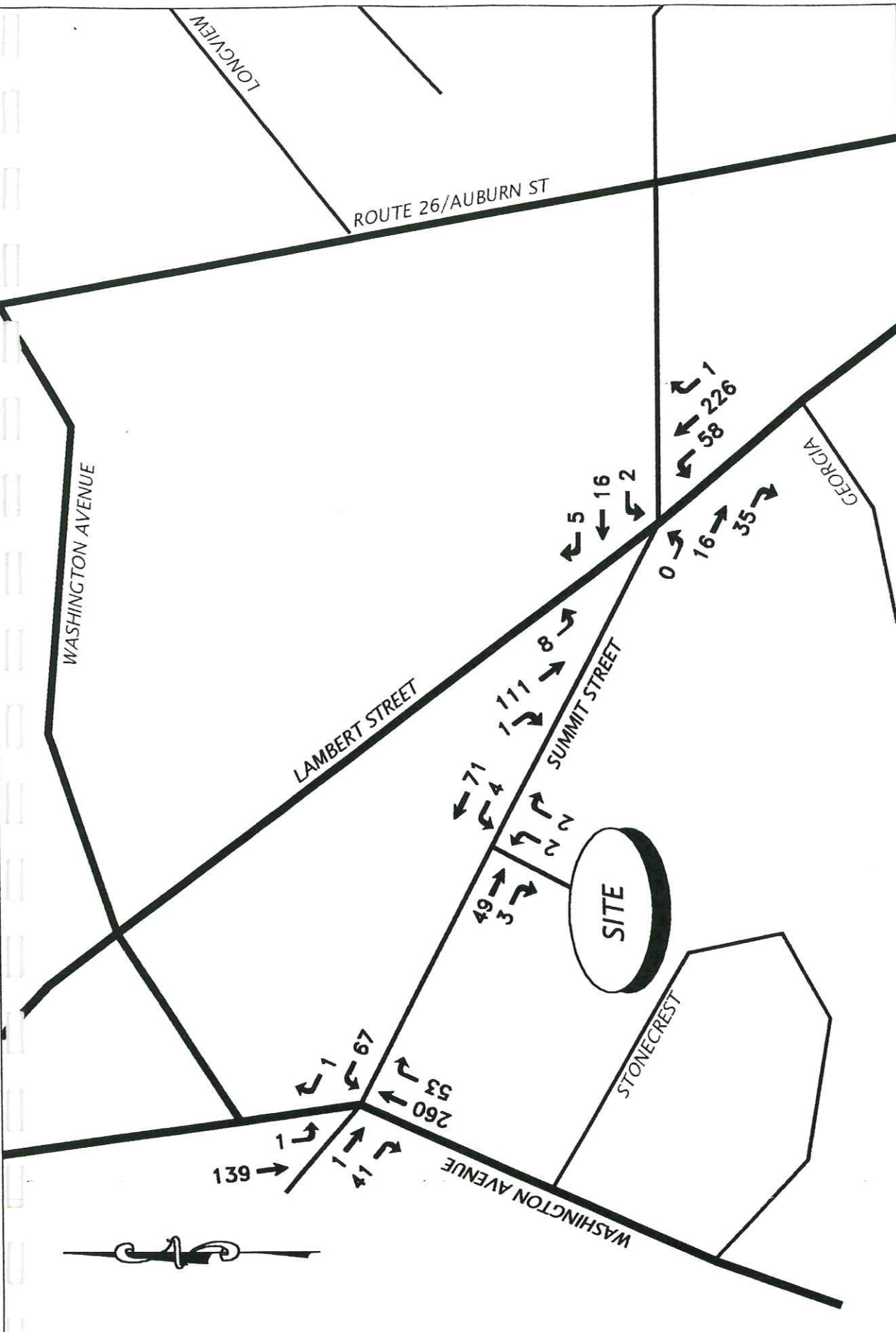
**Figure 3**  
**Portland, Maine**  
**Projected Year 2008 No Build Volumes**  
**P.M. Peak Hour**



**Casey & Godfrey**  
**Consulting Engineers**  
 263 Water Street  
 Gardiner, Maine 04345  
 tel: (207) 582-4526  
 fax: (207) 582-8526  
 e-mail: cge@ime.net

**Figure 4**  
**Portland, Maine**  
**Trip Assignments**  
**P.M. Peak Hour**





**Consulting Engineers**  
 263 Water Street  
 Gardiner, Maine 04345  
 tel: (207) 582-4526  
 fax: (207) 582-8526  
 e-mail: cge@lme.net

**Casey Godfrey**

**Figure 5**  
**Portland, Maine**  
**Projected Year 2008 Build Volumes**  
**P.M. Peak Hour**

# ***APPENDIX***

Traffic Counts

Capacity Analysis

Accident Data

Casey & Godfrey Engineers  
 263 Water Street  
 Gardiner, Maine 04345  
 (207) 582-4526

Washington Ave & Summit St  
 Portland, Maine  
 Counter: SK  
 Weather: Clear, Sunny

File Name : summit1  
 Site Code : 00000334  
 Start Date : 09/27/2005  
 Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

Start Time	Washington Ave From North					Summit Street From East					Washington Ave From South					Summit St. Out Only From West					Exclu. Total	Inclu. Total	Int. Total	
	Righ t	Thru	Left	Ped s	App. Total	Righ t	Thru	Left	Ped s	App. Total	Righ t	Thru	Left	Ped s	App. Total	Righ t	Thru	Left	Ped s	App. Total				
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0					
03:15 PM	0	30	0	0	30	0	0	14	0	14	17	32	0	0	49	8	1	0	0	9	0	102	102	
03:30 PM	0	26	0	0	26	1	0	8	0	9	5	62	0	0	67	9	0	0	0	9	0	111	111	
03:45 PM	0	31	0	0	31	1	0	7	0	8	9	44	0	0	53	9	0	0	0	9	0	101	101	
Total	0	87	0	0	87	2	0	29	0	31	31	138	0	0	169	26	1	0	0	27	0	314	314	
04:00 PM	0	12	0	0	12	0	0	12	0	12	11	46	0	0	57	7	0	0	0	7	0	88	88	
04:15 PM	0	32	0	0	32	0	0	8	0	8	9	55	0	0	64	6	0	0	0	6	0	110	110	
04:30 PM	0	36	0	0	36	1	0	10	0	11	16	63	0	0	79	7	0	0	0	7	0	133	133	
04:45 PM	0	26	0	0	26	0	0	15	0	15	6	45	0	0	51	11	0	0	0	11	0	103	103	
Total	0	106	0	0	106	1	0	45	0	46	42	209	0	0	251	31	0	0	0	31	0	434	434	
05:00 PM	0	30	1	0	31	0	0	19	0	19	10	68	0	0	78	11	1	0	0	12	0	140	140	
05:15 PM	0	31	0	0	31	0	0	13	0	13	12	55	0	0	67	7	0	0	1	7	1	118	119	
05:30 PM	0	27	0	0	27	0	0	10	0	10	9	56	0	0	65	5	0	0	0	5	0	107	107	
05:45 PM	0	25	0	0	25	0	0	8	0	8	7	49	0	0	56	8	1	0	0	9	0	98	98	
Total	0	113	1	0	114	0	0	50	0	50	38	228	0	0	266	31	2	0	1	33	1	463	464	
Grand Total	0	306	1	0	307	3	0	124	0	127	111	575	0	0	686	88	3	0	1	91	1	1211	1212	
Approch %	0.0	99.7	0.3			2.4	0.0	97.6			16.2	83.8	0.0			96.7	3.3	0.0		7.5	0.1	99.9		
Total %	0.0	25.3	0.1		25.4	0.2	0.0	10.2		10.5	9.2	47.5	0.0		56.6	7.3	0.2	0.0						

Start Time	Washington Ave From North				Summit Street From East				Washington Ave From South				Summit St. Out Only From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour From 03:15 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	0	123	1	124	1	0	57	58	44	231	0	275	36	1	0	37	494
Percent	0.0	99.2	0.8		1.7	0.0	98.3		16.0	84.0	0.0		97.3	2.7	0.0		
05:00 Volume	0	30	1	31	0	0	19	19	10	68	0	78	11	1	0	12	140
Peak Factor																	0.882
High Int.	04:30 PM				05:00 PM				04:30 PM				05:00 PM				
Volume	0	36	0	36	0	0	19	19	16	63	0	79	11	1	0	12	
Peak Factor				0.861				0.763				0.870				0.771	
Peak Hour From 03:15 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:15 PM				04:30 PM				04:30 PM				04:30 PM				
Volume	0	124	1	125	1	0	57	58	44	231	0	275	36	1	0	37	
Percent	0.0	99.2	0.8		1.7	0.0	98.3		16.0	84.0	0.0		97.3	2.7	0.0		
High Int.	04:30 PM				05:00 PM				04:30 PM				05:00 PM				
Volume	0	36	0	36	0	0	19	19	16	63	0	79	11	1	0	12	
Peak Factor				0.868				0.763				0.870				0.771	

GROUP I I I

0.94/0.87 = 1.08

133

62 48 249 39

Casey & Godfrey Engineers  
263 Water Street  
Gardiner, Maine 04345  
(207) 582-4526

Summit & Lambert  
Portland, Maine  
Counter: JE  
Weather: Clear, Sunny

File Name : summit2  
Site Code : 12345678  
Start Date : 09/27/2005  
Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

Start Time	Lambert St From North					Summit Street From East					Lambert St From South					Summit Street From West					Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total			
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	0	30	0	0	30	1	2	3	0	6	4	23	12	0	39	7	2	1	0	10	0	85	85
03:15 PM	1	15	2	0	18	4	5	0	0	9	1	23	6	0	30	9	3	0	0	12	0	69	69
03:30 PM	4	20	0	1	24	0	1	0	0	1	1	35	8	0	44	6	0	0	0	6	1	75	76
03:45 PM	0	18	0	0	18	2	2	1	0	5	1	40	7	1	48	7	3	0	0	10	1	81	82
Total	5	83	2	1	90	7	10	4	0	21	7	121	33	1	161	29	8	1	0	38	2	310	312
04:00 PM	0	15	2	0	17	0	3	0	0	3	2	40	7	0	49	13	4	1	1	18	1	87	88
04:15 PM	0	28	2	0	30	2	3	0	0	5	0	41	9	0	50	6	5	0	0	11	0	96	96
04:30 PM	0	24	2	0	26	0	3	0	0	3	0	46	9	0	55	12	2	0	0	14	0	98	98
04:45 PM	1	19	0	2	20	1	4	2	1	7	1	65	14	1	80	7	2	0	0	9	4	116	120
Total	1	86	6	2	93	3	13	2	1	18	3	192	39	1	234	38	13	1	1	52	5	397	402
05:00 PM	0	27	3	1	30	2	3	0	0	5	0	48	17	0	65	6	4	0	0	10	1	110	111
05:15 PM	0	19	2	0	21	1	1	1	0	3	1	43	12	1	56	13	1	0	0	14	1	94	95
05:30 PM	0	23	1	1	24	3	1	0	0	4	0	34	8	1	42	14	8	1	0	23	2	93	95
05:45 PM	0	15	0	0	15	2	4	0	0	6	0	36	5	0	41	4	2	0	1	6	1	68	69
Total	0	84	6	2	90	8	9	1	0	18	1	161	42	2	204	37	15	1	1	53	5	365	370
Grand Total	6	253	14	5	273	18	32	7	1	57	11	474	114	4	599	104	36	3	2	143	12	1072	1084
Apprch %	2.2	92.7	5.1			31.6	56.1	12.3			1.8	79.1	19.0			72.7	25.2	2.1					
Total %	0.6	23.6	1.3		25.5	1.7	3.0	0.7		5.3	1.0	44.2	10.6		55.9	9.7	3.4	0.3		13.3	1.1	98.9	

Start Time	Lambert St From North				Summit Street From East				Lambert St From South				Summit Street From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:15 PM				04:45 PM				04:45 PM				04:30 PM				
Volume	1	98	7	106	5	13	2	20	1	200	49	250	31	13	0	44	420
Percent	0.9	92.5	6.6		25.0	65.0	10.0		0.4	80.0	19.6		70.5	29.5	0.0		116
04:45 Volume	1	19	0	20	1	4	2	7	1	65	14	80	7	2	0	9	0.905
Peak Factor	0.883				0.714				0.781				0.786				
High Int.	04:15 PM				04:45 PM				04:45 PM				04:30 PM				
Volume	0	28	2	30	1	4	2	7	1	65	14	80	12	2	0	14	
Peak Factor	0.883				0.714				0.781				0.786				
Peak Hour From 03:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:15 PM				03:00 PM				04:30 PM				04:45 PM				
Volume	1	98	7	106	7	10	4	21	2	202	52	256	40	15	1	56	
Percent	0.9	92.5	6.6		33.3	47.6	19.0		0.8	78.9	20.3		71.4	26.8	1.8		
High Int.	04:15 PM				03:15 PM				04:45 PM				05:30 PM				
Volume	0	28	2	30	4	5	0	9	1	65	14	80	14	8	1	23	
Peak Factor	0.883				0.583				0.800				0.609				

GROUP I J I I  
 $0.94/0.87 = 1.08$   
 1 106 8 5 14 2 1 216 53 33 14 0

**TWO-WAY STOP CONTROL SUMMARY**

General Information		Site Information	
Analyst	SAK	Intersection	Summit & Lambert
Agency/Co.	CGE	Jurisdiction	Portland
Date Performed	9/30/05	Analysis Year	2005
Analysis Time Period	PM Peak		
Project Description <i>Summit &amp; Lambert - Existing 2005 Volumes</i>			
East/West Street: <i>Summit Street</i>		North/South Street: <i>Lambert Street</i>	
Intersection Orientation: <i>North-South</i>		Study Period (hrs): <i>0.25</i>	

Vehicle Volumes and Adjustments						
Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	53	216	1	8	106	1
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.90	0.90	0.90
Hourly Flow Rate, HFR	66	269	1	8	117	1
Percent Heavy Vehicles	3	-	-	5	-	-
Median Type	<i>Undivided</i>					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	<i>LTR</i>			<i>LTR</i>		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	2	14	5	0	14	33
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.80	0.80	0.80
Hourly Flow Rate, HFR	2	18	6	0	17	41
Percent Heavy Vehicles	0	0	0	4	4	4
Percent Grade (%)	0			0		
Flared Approach		<i>N</i>			<i>N</i>	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		<i>LTR</i>			<i>LTR</i>	

Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	<i>LTR</i>	<i>LTR</i>		<i>LTR</i>			<i>LTR</i>	
v (vph)	66	8		26			58	
C (m) (vph)	1464	1276		472			686	
v/c	0.05	0.01		0.06			0.08	
95% queue length	0.14	0.02		0.17			0.28	
Control Delay	7.6	7.8		13.1			10.7	
LOS	A	A		B			B	
Approach Delay	-	-		13.1			10.7	
Approach LOS	-	-		B			B	

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## TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information					
Analyst	SAK		Intersection	Summit & Lambert				
Agency/Co.	CGE		Jurisdiction	Portland				
Date Performed	9/30/05		Analysis Year	2008				
Analysis Time Period	PM Peak							
Project Description <i>Summit &amp; Lambert - 2008 No Build</i>								
East/West Street: <i>Summit Street</i>			North/South Street: <i>Lambert Street</i>					
Intersection Orientation: <i>North-South</i>			Study Period (hrs): <i>0.25</i>					
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	55	226	1	8	111	1		
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.90	0.90	0.90		
Hourly Flow Rate, HFR	68	282	1	8	123	1		
Percent Heavy Vehicles	3	-	-	5	-	-		
Median Type	<i>Undivided</i>							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	<i>LTR</i>			<i>LTR</i>				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	2	15	5	0	15	34		
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.80	0.80	0.80		
Hourly Flow Rate, HFR	2	20	6	0	18	42		
Percent Heavy Vehicles	0	0	0	4	4	4		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		<i>LTR</i>			<i>LTR</i>			
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	<i>LTR</i>	<i>LTR</i>		<i>LTR</i>			<i>LTR</i>	
v (vph)	68	8		28			60	
C (m) (vph)	1457	1262		454			669	
v/c	0.05	0.01		0.06			0.09	
95% queue length	0.15	0.02		0.20			0.29	
Control Delay	7.6	7.9		13.5			10.9	
LOS	A	A		B			B	
Approach Delay	-	-		13.5			10.9	
Approach LOS	-	-		B			B	

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TWO-WAY STOP CONTROL SUMMARY								
<b>General Information</b>				<b>Site Information</b>				
Analyst	SAK			Intersection	Summit & Lambert			
Agency/Co.	CGE			Jurisdiction	Portland			
Date Performed	9/30/05			Analysis Year	2008			
Analysis Time Period	PM Peak							
Project Description <i>Summit &amp; Lambert - 2008 Build</i>								
East/West Street: <i>Summit Street</i>				North/South Street: <i>Lambert Street</i>				
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>				
<b>Vehicle Volumes and Adjustments</b>								
<b>Major Street</b>	<b>Northbound</b>			<b>Southbound</b>				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	58	226	1	8	111	1		
Peak-Hour Factor, PHF	0.80	0.80	0.80	0.90	0.90	0.90		
Hourly Flow Rate, HFR	72	282	1	8	123	1		
Percent Heavy Vehicles	3	-	-	5	-	-		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Upstream Signal		0			0			
<b>Minor Street</b>	<b>Westbound</b>			<b>Eastbound</b>				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	2	16	5	0	16	35		
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.80	0.80	0.80		
Hourly Flow Rate, HFR	2	21	6	0	19	43		
Percent Heavy Vehicles	0	0	0	4	4	4		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		LTR			LTR			
<b>Delay, Queue Length, and Level of Service</b>								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LTR			LTR		
v (vph)	72	8	29			62		
C (m) (vph)	1457	1262	446			660		
v/c	0.05	0.01	0.07			0.09		
95% queue length	0.16	0.02	0.21			0.31		
Control Delay	7.6	7.9	13.6			11.0		
LOS	A	A	B			B		
Approach Delay	-	-	13.6			11.0		
Approach LOS	-	-	B			B		

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Version 4.1d

**TWO-WAY STOP CONTROL SUMMARY**

General Information		Site Information	
Analyst	SAK	Intersection	Summit & Washington
Agency/Co.	CGE	Jurisdiction	Portland
Date Performed	9/30/05	Analysis Year	2005
Analysis Time Period	PM Peak		
Project Description <i>Summit &amp; Washington 2005</i>			
East/West Street: <i>Summit Street</i>		North/South Street: <i>Washington Ave</i>	
Intersection Orientation: <i>North-South</i>		Study Period (hrs): <i>0.25</i>	

**Vehicle Volumes and Adjustments**

Major Street	Northbound			Southbound		
	Movement	Volume	PHF	Movement	Volume	PHF
	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	249	48	1	133	0
Peak-Hour Factor, PHF	1.00	0.90	0.90	0.90	0.90	1.00
Hourly Flow Rate, HFR	0	276	53	1	147	0
Percent Heavy Vehicles	0	-	-	12	-	-
Median Type	<i>Undivided</i>					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
	Movement	Volume	PHF	Movement	Volume	PHF
	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	62	0	1	0	1	39
Peak-Hour Factor, PHF	0.80	1.00	0.80	1.00	0.80	0.80
Hourly Flow Rate, HFR	77	0	1	0	1	48
Percent Heavy Vehicles	2	0	2	0	3	3
Percent Grade (%)	0					
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration		LR				TR

**Delay, Queue Length, and Level of Service**

Approach	NB	SB	Westbound			Eastbound		
			Movement	Volume	PHF	Movement	Volume	PHF
	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				TR
v (vph)		1		78				49
C (m) (vph)		1176		473				882
v/c		0.00		0.16				0.06
95% queue length		0.00		0.59				0.18
Control Delay		8.1		14.1				9.3
LOS		A		B				A
Approach Delay	-	-	14.1			9.3		
Approach LOS	-	-	B			A		

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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	SAK	Intersection	Summit & Washington
Agency/Co.	CGE	Jurisdiction	Portland
Date Performed	9/30/05	Analysis Year	2008
Analysis Time Period	PM Peak		
Project Description <i>Summit &amp; Washington 2008 No Build</i>			
East/West Street: <i>Summit Street</i>		North/South Street: <i>Washington Ave</i>	
Intersection Orientation: <i>North-South</i>		Study Period (hrs): <i>0.25</i>	

### Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
	1	2	3	4	5	6
Movement	L	T	R	L	T	R
Volume	0	260	50	1	139	0
Peak-Hour Factor, PHF	1.00	0.90	0.90	0.90	0.90	1.00
Hourly Flow Rate, HFR	0	288	55	1	154	0
Percent Heavy Vehicles	0	—	—	12	—	—
Median Type	<i>Undivided</i>					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
	7	8	9	10	11	12
Movement	L	T	R	L	T	R
Volume	65	0	1	0	1	41
Peak-Hour Factor, PHF	0.80	1.00	0.80	1.00	0.80	0.80
Hourly Flow Rate, HFR	81	0	1	0	1	51
Percent Heavy Vehicles	2	0	2	0	3	3
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration		LR				TR

### Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
			7	8	9	10	11	12
Movement	1	4						
Lane Configuration		LT		LR				TR
v (vph)		1		82				52
C (m) (vph)		1162		456				874
v/c		0.00		0.18				0.06
95% queue length		0.00		0.65				0.19
Control Delay		8.1		14.6				9.4
LOS		A		B				A
Approach Delay	—	—	14.6			9.4		
Approach LOS	—	—	B			A		

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## TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information					
Analyst	SAK		Intersection	Summit & Washington				
Agency/Co.	CGE		Jurisdiction	Portland				
Date Performed	9/30/05		Analysis Year	2008				
Analysis Time Period	PM Peak							
Project Description <i>Summit &amp; Washington 2008 Build</i>								
East/West Street: <i>Summit Street</i>			North/South Street: <i>Washington Ave</i>					
Intersection Orientation: <i>North-South</i>			Study Period (hrs): <i>0.25</i>					
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	0	260	53	1	139	0		
Peak-Hour Factor, PHF	1.00	0.90	0.90	0.90	0.90	1.00		
Hourly Flow Rate, HFR	0	288	58	1	154	0		
Percent Heavy Vehicles	0	—	—	12	—	—		
Median Type	<i>Undivided</i>							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	67	0	1	0	1	41		
Peak-Hour Factor, PHF	0.80	1.00	0.80	1.00	0.80	0.80		
Hourly Flow Rate, HFR	83	0	1	0	1	51		
Percent Heavy Vehicles	2	0	2	0	3	3		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	1	0		
Configuration		LR				TR		
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				TR
v (vph)		1		84				52
C (m) (vph)		1159		455				874
v/c		0.00		0.18				0.06
95% queue length		0.00		0.67				0.19
Control Delay		8.1		14.7				9.4
LOS		A		B				A
Approach Delay	—	—	14.7			9.4		
Approach LOS	—	—	B			A		

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TINACC30  
MAINE DEPARTMENT OF TRANSPORTATION  
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION  
ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS      TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL

STUDY PERIOD: FROM MONTH 01 YEAR 2002 TO MONTH 12 YEAR 2004

INPUT COMMENTS

REQUEST: SUMMIT ST  
TOWN: PORTLAND

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
60689	05	03869	0	0.00	03870	07489	0	0.00

MAINE DEPARTMENT OF TRANSPORTATION  
 TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

TINACC30

ACCIDENT SUMMARY I

COUNTY	LOW	HIGH	STREET NAME	U/R	TOTAL	LINK	INJURY	ACCIDENTS	PERCENT	ANNUAL	HM	ANNUAL	M	ACCIDENT-RATES	CRITI	CRF	
TOWN#	NODE	NODE	OR ROUTE #	ACCTS	LENGTH	K	A	B	C	PD	INJURY	VEH-MILES	ENT-VEHS	LINK	RATE	RATE	
05	03869	POR, WASHINGTON AVE, SUMM	2	1		0	0	0	0	1	0.0		1.569		0.21	0.50	0.00
05	03870	POR, LAMBERT, SUMMIT ST.	2	0		0	0	0	0	0	0.0		1.449		0.00	0.51	0.00
05	07489	POR, AUBURN, SUMMIT ST.	2	2		0	0	1	0	1	50.0		4.338		0.15	0.41	0.00
		NODE SUBTOTALS-		3		0	0	1	0	2	33.3		7.356		0.14	0.35	0.00

MAINE DEPARTMENT OF TRANSPORTATION  
 TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

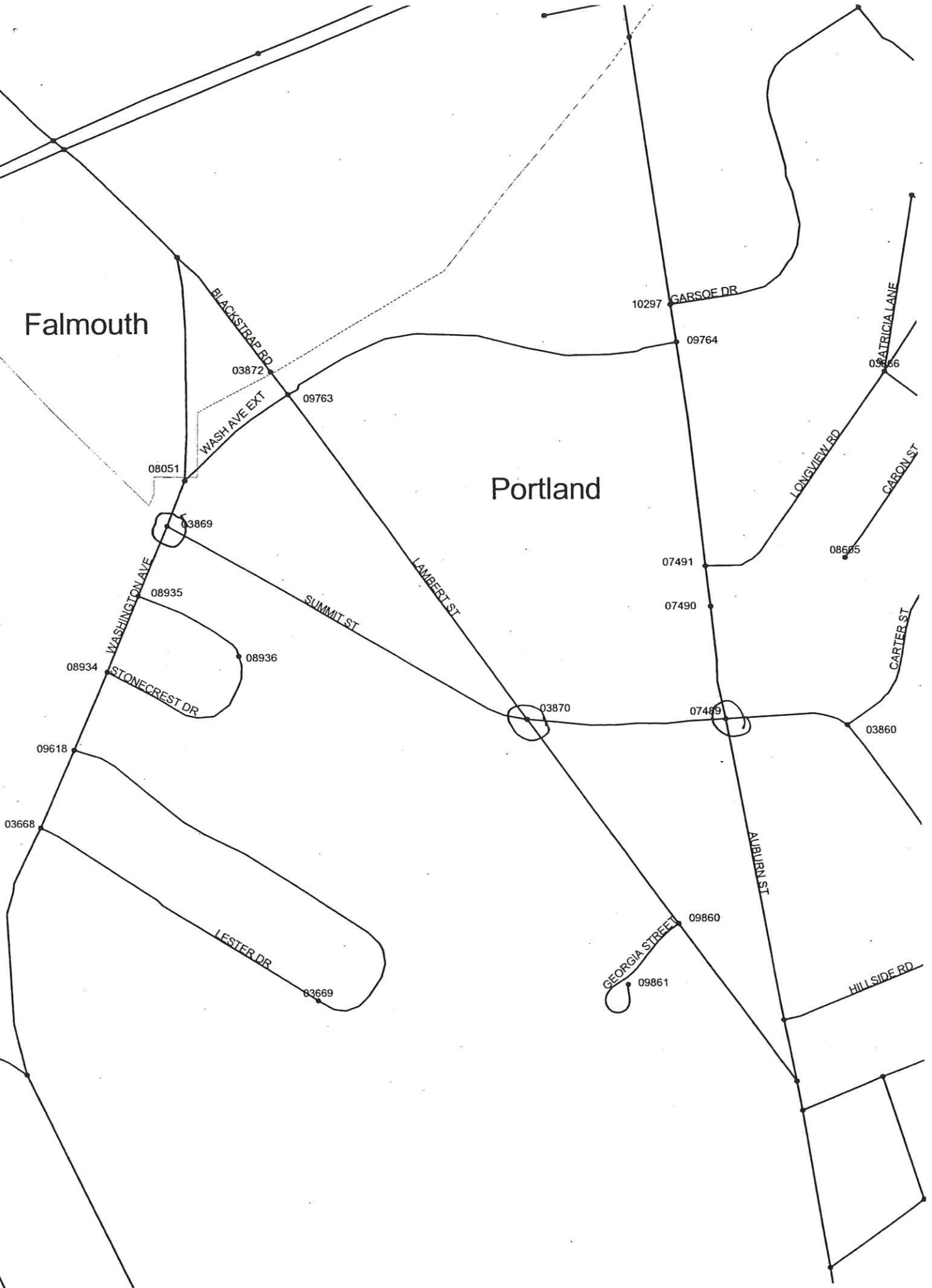
TINACC30

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	INJURY K	ACCIDENTS A	ACCIDENTS B	ACCIDENTS C	ACCIDENTS PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	CRITI NODE RATE	CRF
05170	03869	03870	SUMMIT ST	2	0	0.23	0	0	0	0	0	0.0	0.00156		0.00	953.24	0.00
	03870	07489		2	0	0.13	0	0	0	0	0	0.0	0.00019		0.00	1502.23	0.00
			LINK SUBTOTALS-		0	0.36	0	0	0	0	0	0.0	0.00175		0.00	924.52	0.00
			GRAND TOTALS-		3	0.36	0	0	1	0	2	33.3	0.00175	7.356	571.42	1101.04	0.52

Falmouth

Portland





**Stormwater Management Report**

**Morningstar Lane**

Summit Street  
Portland, Maine

Prepared for:

**Morningstar Real Estate Trust  
9 Craigie Street  
Portland, Maine 04102**

Prepared by:

**Land Use Consultants, Inc.  
Portland, Maine**

September 2005  
Revised July 2006



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  - 2.1 Existing Site Conditions
  - 2.2 Soils and Wetlands
  - 2.3 Offsite Upstream Drainage
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  - 2.5 Onsite Drainage
3. Post-Development Conditions
  - 3.1 Site Layout
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4. Stormwater analysis
5. Erosion and Sedimentation Control
6. Summary

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2. Peak Runoff Rates Point of Interest Western Property Line
3. Detention Basin Summary

### **Figure**

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**LAND BANK COMMISSION MEETING**  
**Thursday, February 2, 2006**  
**Planning Department – City Hall**  
**5:00 P.M.**

**ATTENDANCE:** Catherine Whittenburg, Acting Chair; Joe Anderson, Kim Boggiatto, Christina Feller, Robert Krug, John Osborn, U. Charles Rimmel, Councilor Donna Carr, Commission Members; Tom Jewell, Portland Trails; Steve Aylward, Portland resident; Larry Mead, Judith Rosen City Staff.

**ROLL CALL AND DECLARATION OF A QUORUM**

The meeting was called to order at 5:10 p.m. A motion was made by Charles Rimmel to accept the minutes from the January 5, 2006 meeting, seconded by Christina Feller. PASSED.

**TREASURER'S REPORT**

A motion was made to accept the Treasurer's report by Charles Rimmel, seconded by Christina Feller. PASSED.

**OLD BUSINESS**

**Redlon Park:** Larry Mead informed the Commission that there is no update on the Dyer parcels at Redlon Park. He hopes to have information for Commission members at the next Land Bank Commission meeting.

**Ocean Avenue Landfill:** A meeting was held today with the Ocean Avenue Vision Plan group consisting of Tom Jewell, Denise Clavette, Larry Mead, Rick Knowland, Brad Roland and Chris DiMitteo from Sebago Technics. They went over the Asset Inventory and Vision Plan draft submitted by Sebago Technics and gave their input. Tom Jewell requested that the attachment of GIS maps be updated if possible to include more recent residential development.

There are 3 miles of trails in this area. It is a very diverse area and unique to Portland because of the variety of terrain and habitat present in a contiguous space.

Larry Mead informed the Commission that he was asked by the Housing Committee to come to their February 7 meeting to review City owned Land Bank priority parcels that may be suitable for housing. Larry said that the Housing Committee is charged by the Council to provide leadership in promoting an adequate supply of housing within the City while the Land Bank Commission is charged to promote conservation and open space within the City. It is the Council's responsibility to resolve any situations where these two interests may be in conflict.

Larry reported that the Housing Committee will consider an agenda item to develop an RFP for the Ocean Avenue-Virginia Street area for the development of housing. It would be helpful if one or two members of the Land Bank Commission attend this meeting to represent the Commission's interests.

## NEW BUSINESS

*Morning Star Lane.*

**509 Summit Street:** Members of the Land Bank Commission went on a field trip to this area to see if the land should be put on the Land Bank Commission's priority list for open space. A plan was submitted to the Planning Office to build an 11 lot subdivision on this site (see attached map). This plan was not acceptable due to permitting issues with the DEP. It is expected that the owner will revise the plan and resubmit to Planning. At the moment the subdivision is on the agenda for the February 28<sup>th</sup> Planning Board meeting. While the land has some interesting features, including mature white pines, the consensus of the members present was that, considering the limited financial resources available, the property was not of sufficient interest to be added to the priority list.

**Riverton Neighborhood Park and Bikeway:** Steve Aylward, a Portland resident and member of the Riverton Community Association came to speak to the Land Bank Commission regarding a park, bikeway and trails his Association would like to see developed in this area. This would include 16 privately owned parcels in the Natick Street area. A significant portion of the area proposed by Steve is part of the land known as the inter-urban line which is included in the Commission's priority listing. In addition, the Natick Street parcel that is part of the Land Bank is included in the area under consideration by the Riverton Neighborhood. He asked the Commission for guidance in how to move forward with this project. He has spoken with Nan Cummings of Portland Trails and Mayor Jim Cohen. After discussion, Commission members recommended that the Riverton Community Association identify the owners of the 16 lots, see if they would donate the land and to go to local merchants and business owners for financial contributions to buy land that is not donated. There is a possibility that Portland Trails will also be involved in this project.

## NEXT LAND BANK COMMISSION MEETING

The next Land Bank Commission meeting will be a joint meeting with the Friends of the Parks on Thursday, March 2, 2006 at 6:30 p.m. in City Council Chambers. The purpose of that meeting will be to review and discuss the draft vision plan for the Ocean Avenue Recreation Area.

A motion was made by John Osborn, seconded by Christina Feller to adjourn the meeting. The meeting was adjourned at 6:40 p.m.

Respectfully submitted

Judith Rosen  
Secretary pro tem



*Strengthening a Remarkable City. Building a Community for Life* [www.portlandmaine.gov](http://www.portlandmaine.gov)

**Planning and Development Department**  
Lee D. Urban, Director

**Planning Division**  
Alexander Jaegerman, Director

August 31, 2006

Thomas N. Emery, RLA  
Land Use Consultants, Inc  
966 Riverside Street  
Portland, ME 04103

Dear Mr. Emery,

**Re: Site Plan Review: Morning Star Subdivision off Summit Street**  
**Our Ref: 2005-0232**

I write to confirm the receipt of the revised proposals for this project, which were received in this office on August 15, 2006. I also confirm that this project is currently included on the agenda of the City of Portland Planning Board Workshop scheduled for October, 10, 2006 (afternoon).

The revised plans are being reviewed in relation to the City's Subdivision Review criteria set out in Section 14-497 of the City's Ordinance. In order to complete the review I would request that the following information be submitted as soon as possible so it can be reviewed and made available to the Planning Board:

1. **Survey:** Please note that in order for the application to be complete, an updated and stamped survey is required. The survey should be tied to the vertical datum of NGVD 1929 and into the Maine State Plane Coordinate System (2-zone projection), West Zone using the NAD1983(HARN) Datum and the U.S. Survey Foot as the unit of measure. Also please show the pedestrian right of way adjacent to the proposal site which connects to Summit Street and Stone Crest Drive.

Please show the pedestrian right-of-way between Stone Crest Drive and Summit Street that runs along part of the northern boundary of the site.

The final subdivision plat will also need to meet the City's Subdivision standards (Section 14-496 of the City's Ordinance) and granite monuments will need to be set as directed by the City Engineer (see attached comments from the City's Engineering Reviewer.)

2. On one of the plans please show the buildings opposite the proposed road access on Summit Street, as the occupiers may be affected by the location of the access road.
3. **Zoning:** The net residential acreage/density calculations shown on the Subdivision Record Plat are not applicable to a single family lot subdivision; they are only needed if the development is proposed to be a PRUD. The setback shown for Lot #3 appears to need correction, as do the building envelopes for Lots #4, #8 and #11 (the envelopes need to reflect the minimum lot width of 80 feet required under the R-2 Zoning Ordinance).
4. **Wetlands:** I understand that the Wetlands Review undertaken on November 16<sup>th</sup>, 2005 resulted in some amendments to the wetlands delineation, and that the watercourse along the southeast part of the site was identified as a perennial urban stream. You have enclosed a letter from Mark Hampton to Rod Howe of the US Army Corps of Engineers (dated November 25, 2006) but the City has not seen the reply from Rod Howe and has no official information as to what changes were made and whether the Army Corps of Engineers agrees with the representation of the modifications as submitted. I understand Jim Seymour, the City's representative on that site walk, has not received any information regarding the modifications or any concerns raised by the Army Corps of Engineers.

Could you also please submit a plan which clearly shows the location of the urban stream and shows the 25 foot and 75 foot contours that would determine the need for NRPA permits (within and adjacent to the site). Also please show on the plan the full extent of wetlands located on abutters properties and continue these 25 foot and 75 foot contours outside the site. Please show the areas of wetland proposed to be filled, with calculations of the areas of fill, and provide a copy of the Tier 1 Permit application.

5. **Existing Vegetation:** Given the large size of existing trees, the density of the existing planting and the associated wildlife habitat, and the extensive grading proposed, please submit a tree survey showing the location of significant existing trees, based on the discussion with the City's Arborist on Tuesday, November 29<sup>th</sup> 2005. During that meeting a number of trees and tree groups were identified as significant, including several alongside and behind No 514 Summit Street. Please clarify in greater detail why these trees can not be saved, including the tree identified in Lot #11 and those further away from Summit Street.
6. **Landscaping and Tree-saves:** As discussed at the meeting on November 29, 2006, there are a number of trees that are considered important to preserve and which will require special measures to protect during construction. At this stage please show the location of existing significant trees that are to be protected and preserved on the landscaping plan and indicate in text what measures/plans are intended to be prepared that will ensure their protection during grading and construction work.
7. **Drainage:** Although the pond has been designed to mimic the pre-development peak flow condition of the site, it does not adequately present information detailing that it will not result in downstream flooding. The new pond will discharge into an existing pond

that does not have any type of outlet control device. The new time of concentration and extended peak flow from the new pond into the existing pond, may coincide with the peak flow from the existing pond, resulting in flooding. The peak flows from the pre-development condition and the current pond may have not lined up previously and therefore not resulted in flooding where they may now occur simultaneously.

Also please submit documentation that shows that the applicant has rights to discharge into the existing detention pond.

8. **Sewer Easement:** As mentioned previously, the sewer easement leading to Summit Street needs to be 30 feet wide along the whole of its length. It appears that part of the easement area is within an easement to another party (Tupper).
9. **Erosion and Sedimentation Control:** Please amend sheet 8 as per the comments from the City Engineering Reviewer, attached.
10. **Sidewalks:** Please show the sidewalk proposed along Summit Street. Regarding sidewalks along Morning Star Lane please submit a waiver request (it appears that only one sidewalk is proposed) indicating the basis on which a waiver is requested (referring to the waiver provisions of the Ordinance, which are attached).
11. **Capacity Letters:** I do not appear to have all the capacity letters and none were included in the recent submission.

If you have any questions, please do not hesitate to contact me on (207) 874 8728 or at [jf@portlandmaine.gov](mailto:jf@portlandmaine.gov).

Sincerely,



Jean Fraser  
Planner

Attached: Comments dated August 29, 2006 from City's Engineering Reviewer  
City Sidewalk Ordinance

Cc Sarah Hopkins, Development Review Services Manager  
Eric Labelle, City Engineer  
Jim Carmody, Traffic Engineer  
Tom Errico, Traffic Engineer  
Marge Schmuckal, Zoning Administrator  
Jeff Tarling, City Arborist  
Dan Goyette, City's Engineering Reviewer

Attachment 6a

**From:** "Staples" <m.staples@verizon.net>  
**To:** "Jean Fraser" <JF@portlandmaine.gov>  
**Date:** 8/21/2006 1:00:53 PM  
**Subject:** Re: Morning Star Lane subdivision proposal

RE: Morningstar Lane Subdivision, Summit Street  
Site Plan Review Application #2005-0232 (originally submitted October, 2005)

Jean,  
Thank you for the email (and I also got the notice in the mail).

Our main concern continues to be the wet lands that abut our property at the rear of our lot. During heavy rains, especially in the spring and fall, half of our back lawn rapidly becomes saturated even though some of the run off escapes on both sides of my property into Stoncrest Drive as small streams.

We are not against 'development' but would like to be assured that the Planning Board insist that this developer take all measures to address previous concerns made by the Army Corp of Engineer's on behalf of the City. I would also expect, in the event of any approvals, that necessary drainage systems be landscaped to hide any unsightly or mechanical views.

Please keep us informed of any developments, and thank you in advance for representing our concerns and those of our neighbors.

Sincerely,  
Michael & Gale Staples  
60 Stonecrest Dr., Portland ME

**STEVEN AND AMANDA ROWE  
514 Summit Street  
Portland, Maine 04103**

October 18, 2006

Planning Board, City of Portland  
Portland City Hall  
289 Congress Street  
Portland, ME 04101

Re: Proposed Morningstar Lane Subdivision

Dear Planning Board Members:

We offer these comments on the proposal by the Morningstar Real Estate Trust to create eleven house lots on land contiguous to our property at 514 Summit Street.

While we have no general objections to the land being developed for residential housing, we believe that the proposal should be revised to reduce the number of house lots so that a number of character-defining stands of mature pines can be preserved. The proposal calls for eleven lots to be developed on less than five acres of what is presently one of a few heavily wooded parcels remaining in the City of Portland. The proposal calls for essentially a complete clearing of all mature trees on the land. While we understand the desire of the owner to maximize profits from the sale of the land and we do not oppose development of the land for housing *per se*, we do believe the present proposal is unreasonable in light of the specific parcel to be developed and the character that it adds to the neighborhood.

We object to the proposed removal of a number of tall pines along Summit Street and along the eastern boundary of our property. The specific trees along Summit Street and to the rear of our property that we believe should be saved are highlighted on the attached drawing (which was listed as Attachment #3 to an October 10, 2006 letter from Thomas Emery to Jean Fraser). These trees are mature and character-defining. Removing them would dramatically alter the scenic nature of the area. It would also have a devastating effect on wildlife habitat.

Therefore, we respectfully request that the development plan be reconfigured to remove house lots 1 and 2 and that the road be moved eastward so that the stands of pines along Summit Street and along our side property line can be preserved.



Should the Board decide not to remove both lots 1 and 2 from the plan, we alternatively request that the plan be reconfigured so that any house lots along Summit Street and east of our property are located contiguous to our property and that the access road be located to the east of the house lots. We request that the Board take whatever action it can to ensure that "no cut" conditions be placed on the trees that we have identified.

We also object to the plan to remove practically every other mature tree throughout the parcel. We request that the Board carefully examine this unique forested area to determine how this project can go forward while, at the same time, preserving as many of the mature trees as possible. We understand that other abutters and neighbors are concerned about the removal of certain trees as well. We request that you consider their concerns as well as ours.

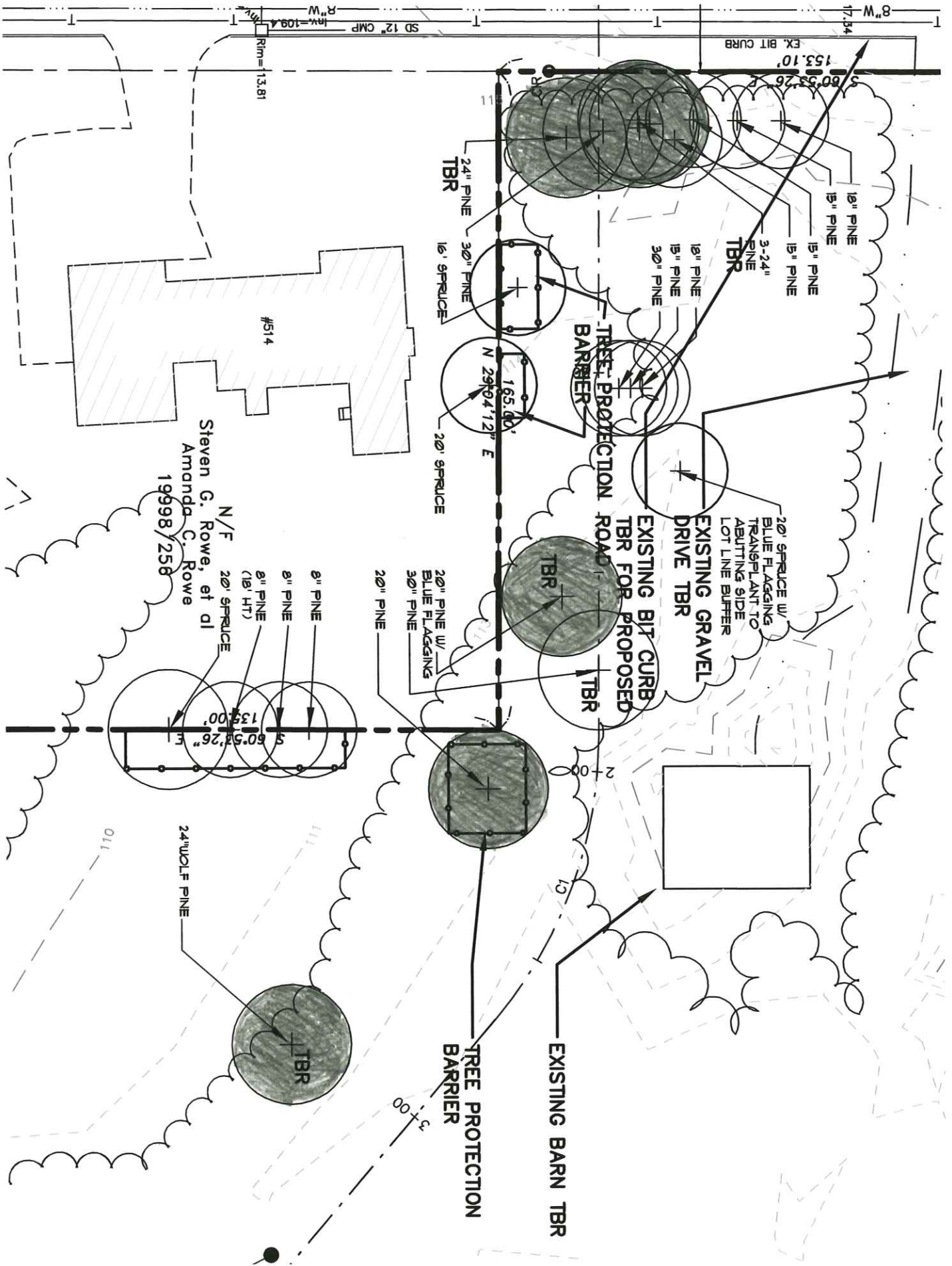
We know that addressing our concerns may mean reducing the number of lots in the proposed subdivision by two or more. However, to do so will help preserve the character of the area as well as the habitat for birds and squirrels. It will also enhance the quality and aesthetics of the housing development itself.

Just so you are aware, when we first learned of this proposed development, we contacted the property owner and communicated our strong preference that certain tall pines along Summit Street and adjacent to our property be preserved and that the access road be placed to the east of the pines. Our interest was then, and it is now, in saving these beautiful trees and the character that they add to the neighborhood as well as the habitat that they provide for wildlife.

Thank you for your consideration of our concerns and requests.

Yours very truly,

  
  
STEVEN ROWE  
AMANDA ROWE



8" W  
17.34  
EX. BIT CURB  
153.10'  
5/60' 53' 26"

Rm=13.81  
Inv=109.4  
SD 12" CMP

18" PINE  
15" PINE  
15" PINE  
3-24"  
18" PINE  
15" PINE  
30" PINE  
24" PINE  
16' SPRUCE  
30" PINE

TREE PROTECTION ROAD  
BARRIER

EXISTING GRAVEL DRIVE TBR  
20' SPRUCE W/ BLUE FLAGGING TRANSPLANT TO ABUTTING SIDE LOT LINE BUFFER

EXISTING BIT CURB TBR FOR PROPOSED

165.00'  
N 29°04'12" E  
20' SPRUCE

20" PINE W/ BLUE FLAGGING  
30" PINE  
20" PINE

N/F Steven G. Rowe, et al  
Amanda C. Rowe  
19998/258

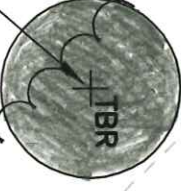
8" PINE  
8" PINE  
8" PINE (18' HT)  
20' SPRUCE  
135.00'  
5/60' 53' 26"  
N 50°57'26" E

2-0-0  
TBR  
TBR  
TBR



EXISTING BARN TBR

TREE PROTECTION BARRIER



24" WOLF PINE

011

3-0-0

October 18, 2006

Jean Fraser, Planner  
Division of Planning  
City of Portland, Maine  
389 Congress Street  
Portland, Maine 04101

Re: Morningstar Lane Subdivision Application

Dear Jean:

We are writing to you to express our concern with the proposed Morningstar Lane Subdivision project. As you are aware we are highly concerned about four key issues; these are as follows (their order is not in any priority):

1. The high rate of subdivision development in District 5 (04103)
2. The inability of developers and realtors alike to sell the newly developed homes (i.e. the Ball Park Drive Development)
3. The demise of old growth forests and wetlands within our area due to the subdivision developments such as Ball Park Drive and Smith Farms. The addition of Morningstar Lane and any future subdivisions in our area will ultimately and negatively impact this wildlife corridor as is the opinion of the Maine Audubon.
4. Lastly the inability of current stormwater and drainage systems within our area to deal with the new developments and the increase of runoff and erosion and the like.

It is our hope that the City will take a proactive stance on this issue and reduce the size of this project, at the very minimum. We believe that by taking action now the City of Portland will be able to adequately address these issues and save existing forests and wetland.

Some of the specific areas worthy of mention in regard to the proposed Morningstar Lane subdivision are as follows:

### 1. *Stream Observations*

According to the abutters within the Greenfield Acres II Subdivision (Lester Drive) who have resided in the area *for more than 10 years*, a stream does exist despite any MDEP ruling or inconsistency in mapping. The abutters bear witness to the *constant flow of the stream* directly behind their backyards regardless of the time of the year. It would seem that the stream should first be classified and be scientifically gauged to include water flow in this particular channel on a daily basis. This would provide both the MDEP and the City of Portland a method to determine legally if it is worthy of classification and secondly if it is intermittent or perennial. From there the appropriate setbacks could be considered.

*In comparison*, the Ball Park Drive Development, which is connected to this development through the Grace Baptist Church property, had similar setback issues. Some of those issues are as follows:

- ✦ No hydrological gauging had been performed
- ✦ Maine Audubon confirmed that **the entire area, including the area next to and near the Grace Baptist Church property**, is a "significant wildlife corridor". Maine Audubon also noted that the 75 foot setback is entirely appropriate if not for Ball Park Drive but also for the surrounding neighborhood especially where the two pieces of land abut each other via the church property.
- ✦ Lastly abutters confirmed that the stream ran year-round.

Ultimately 75 foot setbacks were mandated by the City for Ball Park Drive.

Testimonials can be provided by abutters to confirm that this stream running through and abutting the Morningstar property runs year round. Regardless City mandated 75 foot setbacks for the Morningstar Lane Subdivision provide the City and those residing within it with the following:

- ✦ Consistency in planning - this move would encourages developers to allow old growth forests and wetlands to thrive
- ✦ Sustaining and maintaining the "natural beauty of the area" including the natural horizon as noted in the City's own Subdivision Criteria (Sec. 14-497 item 8).

## 2. *Forest and Wetlands*

The setting of the current neighborhoods consists of all old growth trees. The neighborhoods believe that the City should maintain all old growth trees. Not only are the trees ecologically significant but they are also what creates the ambiance of the neighborhood. This is particularly evident in the fall and summer seasons. If 25 foot setbacks were enforced the horizon would change dramatically and neighbors would be able to see each other's homes. In other City approved subdivisions within this District, privacy and natural beauty have been decimated by the 25 foot setback ruling.

Moreover ecologically 25 foot setbacks would have devastating effects on the existing wetlands in this area. Keep in mind that this is based on the current Morningstar Lane plan whereby the engineers plan to remove the majority of trees, thereby creating massive erosion and sending water into the Wing wetland property. Legally this maneuver seems questionable at best. **Even if a detention pond is built to handle water from the Morningstar Subdivision, it will create a negative ecological effect on the Wing wetland.** The current wetland functions quite well, and supports a wide variety of wildlife and ecological wildlife, including high populations of frogs, inherent to the area.

Furthermore a report from the National Resources Defense Council states from statistical data provided via municipalities and the State of Maine show that "bacteria from municipal point sources, combined sewer overflows, and urban runoff are responsible for impairment in estuarine waters. Ninety-nine percent of assessed river miles support both aquatic life and swimming. Oxygen-depleting substances and bacteria from agriculture and urban runoff are the most significant problems in rivers and streams". Many of these problems are due to the lack of "nutrients, siltation, oxygen-depleting substances, and flow alterations from agriculture, urban runoff", including "hydrologic modifications", as is proposed with the Morning Star Subdivision and the proposed location of its detention pond.

### 3. *Detention Pond*

In general the neighborhood is not in favor of a detention pond, due to both aesthetics and potential health risks. In order to build the detention pond, a bulldozer and other heavy equipment will have to drive and/or be placed onto an area of the current wetland. The area, which includes large and old tree growth, will then be bulldozed thereby creating permanent ecological damage. The significance is that while attempting to create a grassy swale, which is totally unnatural to the area, all of the existing natural vegetation will be eliminated. The detention pond is very likely to attract unwanted and large populations of flies, mosquitoes, bugs and insects, which we already have and do not desire more of. As everyone is aware, some species of mosquitoes have made people very sick and some people have unfortunately died as a result.

The placement of the detention pond will very likely devalue any of the houses abutting the exterior property of the Morningstar Lane Subdivision. According to the Maine DEP, the detention ponds require maintenance and cleaning of the catch basins. There has been no mention to date if these will be maintained by the City's Public Works Department or if a third party will maintain a contractual responsibility for this.

Finally, the City should be aware that there are many children in the neighborhood who enjoy all aspects of natural water sources, wildlife species and the brook itself. We would like to know what safety measures will be erected to keep the children out of the detention ponds. Further we would like to know the esthetics of such safety measures (i.e. fencing).

#### 4. Quantity of Houses

It is the neighborhood's opinion that too many houses are being proposed for this development. Morningstar Lane is proposing houses *too close to Summit Street* and therefore is inconsistent with the setbacks of the current houses. Additionally the current neighborhoods are highly concerned with the ability of the Owner to sell the new homes.

It should be know that most of the houses on Ball Park Drive have not been sold despite many attempts by various real estate agents to sell these. The homes that have been built are overpriced, not conducive to a neighborhood and are too close to each other. *It is the belief of the neighborhoods that the City of Portland including its Planning Offices take responsibility to ensure that forests are not decimated and properties not developed only not to be occupied.* As is the case with Ball Park Drive where only 2 or 3 subdivision is occupied, police reports identify cases of theft; it is our belief that this exists due to the inability of the realtors to sell the homes. In the end the only one who really makes the money is the developer, not the City if it cannot get folks to occupy newly built homes.

#### 5. Culverts and issues

The existing culvert system for the entire Lester Drive area is broken and inadequate. It is incapable of handling the existing drainage from the neighborhood. Should additional runoff and the like be added to this system, we can expect flooding not only at the end of Lester Drive but also on Washington Avenue (Ext). The City has sent traffic engineers to this area a number of times including this week, but have not followed through



with the correction of this issue. Any additional drainage added to the system will obviously exacerbate the problem.

## 6. Traffic Issues


The entire Washington Avenue area is a corridor for pedestrians, runners, cyclists, rollerbladers and other athletes; some of these people include children while others are adults who work at companies within the Riverside Industrial area, adults who are stay-at-home parents, adults who are elders and retired and handicapped individuals within these neighborhoods.

A cohesive traffic study should be conducted to allow the City, the Dorlers' and the residents within the area to have an accurate picture of current and future traffic flow patterns. To collect a cohesive and comprehensive set of traffic data patterns, the study should include conditions related to all traffic on this road. For example, these conditions should reflect the times that people go to and from work, the City bus schedule that includes pick up and drop off points any where in the circumference of the proposed subdivision. The study should also include provisions for traffic flow generated by the school systems. By including pertinent facts within the study, the information will not only be comprehensive but represent the true picture.

Street lights should be established at areas where there is low visibility; many residents have almost been hit during their walking routines regardless of the hour. Cars and trucks drive too fast on Washington and Summit and Lambert Streets.

Crosswalks should be installed at the following locations: the intersection of Summit Street and Washington Avenue Extension; the intersection of Summit Street and Lambert Street; the intersection of Lambert Street and Auburn Street; and at both the intersections of Stonecrest and Washington Ave Extension & Lester Drive and Washington Ave Extension.





Crosswalks should have highly visible paint so that drivers can see the area clearly. Likewise a sidewalk should be placed within the subdivision as well as on Summit Street to accommodate the increased pedestrian traffic.

**In final, perhaps, additional information is necessary.** Some of these items are but are not limited to the following:

1. Limit of soil disturbance, including foreseen erosion
2. Field survey of the wetland in the Winter and Summer
3. Quantity of fill proposed in the area along with the percentage of fill versus the wetland
4. Tree save plan should be created so that neighborhoods adjacent to the development can see the setbacks and the overall loss of vegetation. This plan should include all tree growth and vegetation to remain, as well as, all new vegetation and trees to be added.
5. A geotechnical study of the wetland, including the streams
6. Commitment of the City to make the orientation of the houses & garages face the road within the subdivision
7. Disallow swimming pools, trails, cutting, and stream cross-overs in the wetland (Chlorine would have a damaging effect on the wetland; imprints on the wetland would have a negative effect as well)
8. Maintenance schedule for detention pond, including detail regarding who will conduct this and when, along with how the detention pond will be accessed, and the effects on existing vegetation and wildlife.
9. Proposed ROS areas to connect through Lot 18 of the Haverty property and the Baptist Church property.
10. Revised traffic study noting crosswalks and sidewalks



We appreciate all of your help. We also continue to hope that a resolution will be forthwith that shows a subdivision befitting to the natural beauty of the area.

Sincerely,

Pamela M. Burnside and Mary L. Hutchison

*This document in its entirety is copyrighted; this information is privileged and intended for the Portland Planning Board and Ms. Jean Fraser only. Requests for photocopying or dissemination of this document or any other information emailed or mailed to Pamela M. Burnside and/or Mary L. Hutchison. Otherwise it is prohibited, unless approved in writing by Pamela M. Burnside and/or Mary L. Hutchison.*

Attachment 7  
(3 pages)

Opposed to Another Residential Development Project  
Within District 5  
(04103 Zip Code)

Date	Printed Name	Street Address	City	Zip Code	Signature
10/28	Mary & Bruce Hutchison	135 Lester Drive	Ptld	04103	Mary Hutchison
10/28	Julie & Rob Laing Grant	155 Lester Dr.	Ptld	04103	Julie P Grant Robert H Laing
10/28	Carol & Larry Wang	175 Lester Dr	Ptld	04103	Carol Wang
10/28	Ellen McKee	187 Lester Dr	Ptld.	04103	Ellen McKee
10/28	Scott McKee	187 Lester	Ptld.	04103	SM
10/28	T.W. Clark Michael	118 LESTER	PTLD	04103	T.W. Clark
10/28	Judy Clark	119 LESTER	PTLD.	04103	Judith Clark
10/02	Annette Casale	193 Lester Dr.	Ptld.	04103	Annette Casale
10/02	Fred Casale	143 Lester Dr	Ptld	04103	Fred Casale
10/05	Pam Burnside	64 Lester	PTLD	04103	Pam Burnside
10/05	Sue Baker	64 Lester	PTLD	04103	Sue A. Baker
10/05	Mary Anne Baker	1552 Washington	PTLD	04103	Mary Anne Baker
10/8/06	Richard A. Young	99 LESTER DR	PTLD.	04103	Richard A. Young
10/8/06	Cathy Young	99 Lester DR	Ptld.	04103	Cathy Young

Opposed to Wetland Development within the City of Portland, Maine

Date	Printed Name	Street Address	City	Zip Code	Signature
10/16	Harry Wing	175 Lester	Port.	04103	[Signature]
10/17	John McLean	118 Stonecrest	"	"	John R. McLean
10/17	Michelle McLean	118 Stonecrest	"	"	Michelle McLean
10/17	Mary Taber				Mary Taber
10/17	Esther McLean	70 Stonecrest			Esther McLean
10/17	John Merrill	41 Stonecrest	Port	04103	John Merrill
	Geri Merrill	41 Stonecrest	Port	04103	Geri Merrill
	Michael Staples	60 Stonecrest	Port	04103	Michael Staples
	Gale Staples	60 Stonecrest	Port	04103	Gale Staples
	Donna Allen	48 Stonecrest	Port	04103	Donna Allen
	William Allen	48 Stonecrest	Port	04103	William Allen
	Julie DiPietro	21 Stonecrest	Port	04103	Julie DiPietro
	Cosmo DiPietro	"	"	"	Cosmo DiPietro
	ADELE LeBORGNE	186 LESTER	PORT DR.	04103	Adele C. LeBorgne
10/17	DAVID LeBORGNE	186 LESTER	PORT DR.	04103	David L. LeBorgne

Opposed to Wetland Development within the City of Portland, Maine

Date	Printed Name	Street Address	City	Zip Code	Signature
10/17	Shu Mei Liu	53 Lester Dr.	Portland	04103	<i>Shu Mei Liu</i>
10/17	ROBERT F GIAMPETRUZZI	70 LESTER DR	Portland	04103	<i>Robert F. Giampetruzz</i>
10/17	JOANN B GIAMPETRUZZI	70 LESTER DR	Portland	04103	<i>Joann B Giampetruzz</i>
10/17	L Woodward	80 Lester Dr	Portland	04103	<i>L Woodward</i>
10/17	Kathy Poulos-Moore	85 Lester Dr	Portland	04103	<i>Kathy Poulos-Moore</i>
10/12	ANGELA CAPPATO	91 Lester Dr	Portland	04103	<i>Angela Cappato</i>
10/17	Sandra Carl Thomas	113 Lester Dr	Portland	04103	<i>Sandra Carl Thomas</i>
10/17	William Worden	127 Lester Dr	Portland	04103	<i>William Worden</i>
10/17	Margaret Ann Lornis Worden	<sup>127</sup> Lester Dr	Portland	04103	<i>Margaret Ann Lornis Worden</i>
10/17	Jeffrey Irving	134 Lester Dr	Portland	04103	<i>Jeffrey Irving</i>
10/17	Jill H Irving	134 Lester Dr	Portland	04103	<i>Jill H Irving</i>
10/17	Mary L Norbeck	168 Lester Dr	Portland	04103	<i>Mary L Norbeck</i>
10/17	Thyia Rose	168 Lester Dr	Portland	04103	<i>Thyia Rose</i>
10/17	James Rutter	176 Lester Dr	Port	04103	<i>James Rutter</i>
10/17	Debra Rutter	176 Lester	Port	04103	<i>Debra Rutter</i>



# PORTLAND MAINE

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Office of the Mayor and City Council  
James I. Cohen, Mayor

September 6, 2006

Mr. Lee Urban  
Director, Planning & Development Department  
City of Portland  
389 Congress Street  
Portland, ME 04101

Re: Morning Star Lane 11-Lot Subdivision

Dear Lee:

Last week I had an opportunity to review the preliminary Subdivision and Site Plan Application for the above-noted subdivision that was provided to me by Jean Fraser of the Planning Department. Previously, I had heard from several neighbors with respect to their concerns about the proposed development, and in light of those concerns, I am providing brief comments in this letter.

Generally speaking, the neighbors I have heard from are not opposed to a residential development occurring in the neighborhood. To the contrary, the primary concern relates to the preservation of an existing stand of pines. Under the current plan dated July 26, it appears that the relocated access road, and Lot 11 in particular, would directly impact this stand of trees. These trees constitute an important neighborhood amenity and enhance the quality of life not only for existing residents, but also for future residents of Morning Star Lane. Given the lot configuration, it appears an alternative orientation might be possible where: (1) the access road could be relocated closer to the Grace Baptist Church, and (2) no cut/no build zones could be established at the rear of those lots in the subdivision that would abut the existing house lots along Summit Street. My hope is that these considerations can be fully explored prior to establishment of a final subdivision and site plan approval.

Thanks again for the opportunity to provide comments on the part of neighbors. If you have any questions, please do not hesitate to let me know.

Sincerely,

James I. Cohen  
District 5 City Councilor

cc: Alex Jaegerman, Director, Planning Division  
Jean Fraser, Planner ✓  
Jaimie Caron, President, North Deering Neighborhood Assoc.  
Steve Rowe, 514 Summit Street

File copy  
2005-0232David A. Kamila PE  
Frederic J. Licht PE  
Thomas N. Emery RLA  
J. David Haynes RLA

2897.1



Land Use Consultants, Inc.

p l a n n e r s  
e n g i n e e r s  
l a n d s c a p e  
a r c h i t e c t s

September 22, 2006

(8 pages)

Ms. Jean Fraser  
City Planner  
Department of Planning & Urban Development  
City Hall  
289 Congress Street  
Portland, ME 04101**Morningstar Lane Subdivision Summit Street (Planning Bd. Workshop Review stage).  
Responses to Review Comments August 31, 2006**

Dear Jean:

The following are responses to Woodard & Curran engineering peer review comments dated August 29, 2006 and to staff comments dated August 31, 2006. Lynwood Myshrall, PE has provided the responses related to engineering review. The issue raised is in bold; our response is in italicized font.

**1. Survey:**

*An updated and stamped survey plan meeting the standards required by the City of Portland is included in the plan set.*

*Additionally the fifteen-foot pedestrian easement at the northwest corner of the property has been added to the drawings.*

*The final Subdivision Plat will be prepared to meet the City of Portland standards and granite monuments will be set as required by the City.*

**2. Building Opposite the Proposed Access Rd.:**

*The building opposite the proposed road access has been shown on plan sheet 2.*

**3. Zoning:**

*The net residential acreage/density calculations have been removed from the Subdivision Recording Plat.*

**“Setbacks need to reflect the minimum lot width of 80 feet...:”**

*Section 14-47 Definitions provides the criteria for determining lot width. Lot width is defined on page 14-26 as follows:*

***Lot Width: The distance parallel to the front of the building measured between the side lot lines through that part of the principal building where the lot is narrowest.***

966 RIVERSIDE STREET  
PORTLAND, MAINE 04103voice (207) 878-3313  
f a x (207) 878-0201  
www.landuse@gwi.net



*Our review of the plans indicates that the lot width criteria is met at the front yard setback and at the front of the building shown on the plans. Because the final building footprints are to be determined by the lot purchasers, we have located the front yard setback farther than the 25 ft minimum to that line where the 80 ft lot width is met. (Also note that in the R2 zone, the minimum street frontage is 50 ft)*

**4. Wetlands:**

*The wetlands as shown in the revised plan set received by the City on August 15, 2006 reflect the field adjustments requested by Mr. Howe of the ACOE and agreed to by Mark Hampton during the site walk. The minor revisions include the following:*

*Lot 6: a narrow (5ft approx) finger added between the isolated wetland near Lot 5 connecting to the wetland to the south.*

*Lot 8: The wetland on Lot 8 was extended approximately 30 ft south easterly in a tear drop shape 20 ft wide at its widest point.*

*Lot 10: A 20 ft wide by 30 ft long connection was added between the wetland on the westerly side of the property and a smaller wetland on Lot 11.*

*Lot 11: In addition to the connection described above, the wetland mapped on Lot 11 near the rear of #520 Summit St. was reduced in area - a triangular shape 25 ft ht and 25 ft base approx.*

**“Urban Stream”:**

*The stream has been reviewed on site with Linda Kokemuller of the DEP. At her request, the Applicant retained Jeff Simmons of Woodlot Alternatives to inspect the drainage. Mr. Simmons determined that the drainage is a degraded, urban stream. This stream enters our site from a culvert exiting the church property to the east and is bounded to the south by the Lester Drive development house lots and exits our property through the Lester Drive detention area via a 24” culvert. The length of stream through the site is approx. 370-ft.*

**Jurisdictional Delineations:**

*The line type delineating the stream has been revised to a typical stream line type. The 25 ft and 75 ft jurisdictional setback lines along both sides of the urban stream (including abutters’ property) have been added to the plan set. This is done electronically. We have not mapped the wetlands on the abutters’ properties and would defer this request to the Planning Board and only with the knowledge and permission of the abutting land owners.*





**Wetland Fills:**

*The areas of wetland fills are shown on the attached Exhibit 4.1. The updated NRPA Permit Application will be copied to the Planning Dept. when it is re-submitted to the DEP.*

**5. Existing Vegetation...please submit a tree survey based on discussion with the City Arborist on Tuesday, November 29, 2005.**

*The trees discussed and flagged with blue tape have been field located by triangulation with the proposed access road centerline staking and from property boundaries. This information is shown on Drawing #1 Existing Conditions and Removals and on Drawing #5 Landscape Plan.*

**Clarify why trees cannot be saved...:**

*Like the neighboring subdivisions including Lester Drive to the south and Fieldstone Subdivision to the west, Morningstar Lane is an infill, 11 Lot Subdivisions. Infill development in urban areas with existing infrastructure, neighborhoods is the type of development promoted by proponents of Smart Growth initiatives and is seen as a way to combat sprawl.*

*The planning standards including road width, development density and minimum lot size are determined by the City's zoning and Comprehensive Planning process.*

*The road design criteria is established by the City of Portland Design Guidelines and policy, including the requirement that the road with be 28 ft and have granite curbing each side. Our initial submittal showed a 24 ft. wide street.*

*Due to the cost of development and construction in the City of Portland, this infill development must include the full complement of lots allowed in the R2 Zone. For example, our most recent experience indicates that streets meeting the City of Portland standards range in cost from \$600 to \$650 per linear foot.*

*Parcel configuration and access: The proposed lot and street layout is determined by the parcel geometry; site access being limited to the Summit St. frontage; the parcel being bounded by infill development and wetlands located at the perimeter of the property.*

*Road Access location: It is not possible to shift the access road farther to the east (away from #514 Summit St. ) as it will require eliminating the first three lots. It is our understanding that the Owner of #514 Summit St. did not want the plan reconfigured placing the road to the east and the lots contiguous with the side lot line of #514. Regardless, this option would increase wetland fills for the road construction and may not result in additional tree preservation depending up building footprint locations. The cluster of trees in question is located near the center of the proposed street right of way and includes predominantly Eastern White Pine. The pines are of such size some 18 to 24 inches in diameter approx.,*

that disturbance/ removal of significant portions of the root zone and removal of nearby trees may result in premature dying and/ or wind-throw hazard (blow down).

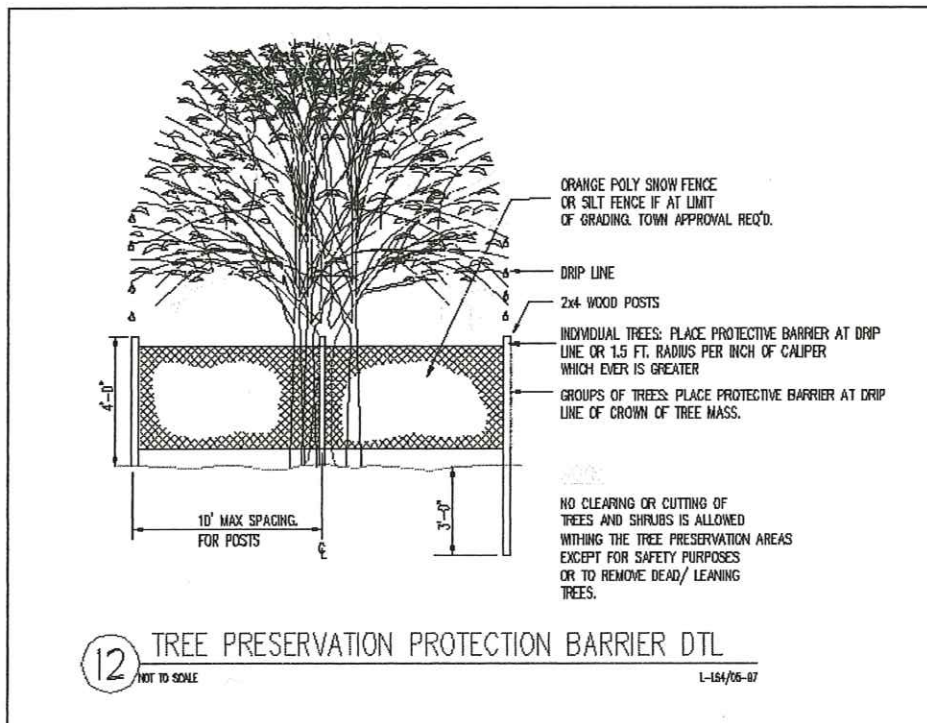
Given the size and location of the cluster near the proposed street centerline, we believe that it would be better to plant a new buffer of mixed evergreens and include privacy fencing if desired along the common side line.

**6. Landscaping and Tree-Saves per meeting of Nov. 29, 2005:**

The tree locations have been added to the Drawing 1, Existing Conditions and Removals and Drawing 5, Landscape.

**Tree Protection:**

The first measure includes showing the trees to be protected and/ or transplanted on the Drawings with a heavy line delineating the tree protection zone (usually located at the drip line). This Tree Preservation detail is also added to the Landscape Details.



**7. Drainage:**

Land Use Consultants, Inc. has analyzed the existing detention pond and outlet culvert. The pond has in excess of 39,500 cf of available storage and has approximately 9 ft. of depth to overcome prior to flooding. The pond discharges into a 24" culvert that in turn discharges into a 24" storm drain in Lester Drive. The Lester Drive storm drain discharges out of a 24" pipe under Washington Avenue to an open channel beyond. The open channel then flows through a 36"



*culvert under the railroad tracks approximately 300 feet down stream. Considering the size of the Morning Star drainage area and the downstream capacity and the fact that detention is being provided it is unlikely that Morning Star Lane Subdivision will cause downstream flooding.*

**8. Sewer Easements:**

*The deed stipulates that a dwelling or other similar structure is prohibited from being erected in the buffer. The deed does restrict the installation and maintenance of a sewer within the buffer.*

**9. Erosion and Sedimentation Control:**

*Sheet 8 has been amended per the City Engineering Review comments.*

**9. Erosion and Sedimentation Control:**

*Sheet 8 has been amended per the City Engineering Review comments.*

**10. Sidewalks:**

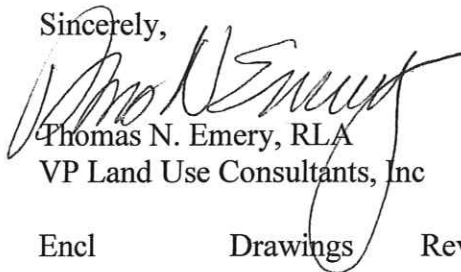
*The plans have been amended to show the sidewalk along Summit Street.*

**11. Capacity Letters:**

*The Portland Water District capacity letter is included with this response letter. On September 20, 2006 Land Use Consultants contacted Mr. Frank Brancely, Senior Engineer for the Portland Public Works Department. Mr. Brancely indicated that he will provide a capacity letter for the sewer system in Summit Street prior to the October 10 Work Shop.*

We trust this response letter addresses the review comments. Please contact our office with any questions you may have concerning our response to the review letter for this project.

Sincerely,



Thomas N. Emery, RLA  
VP Land Use Consultants, Inc

Encl                      Drawings                      Revised Date September 22, 2006

cc:                      Ronald Dorler



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

LLC

NOV 28 2005

RECEIVED

1896

November 25, 2005

Mr. Rod Howe  
U.S. Army Corps of Engineers  
Maine Project Office  
675 Western Avenue #3  
Manchester, ME 04351

Re: Wetland Delineation Determination, Summit Street, Portland

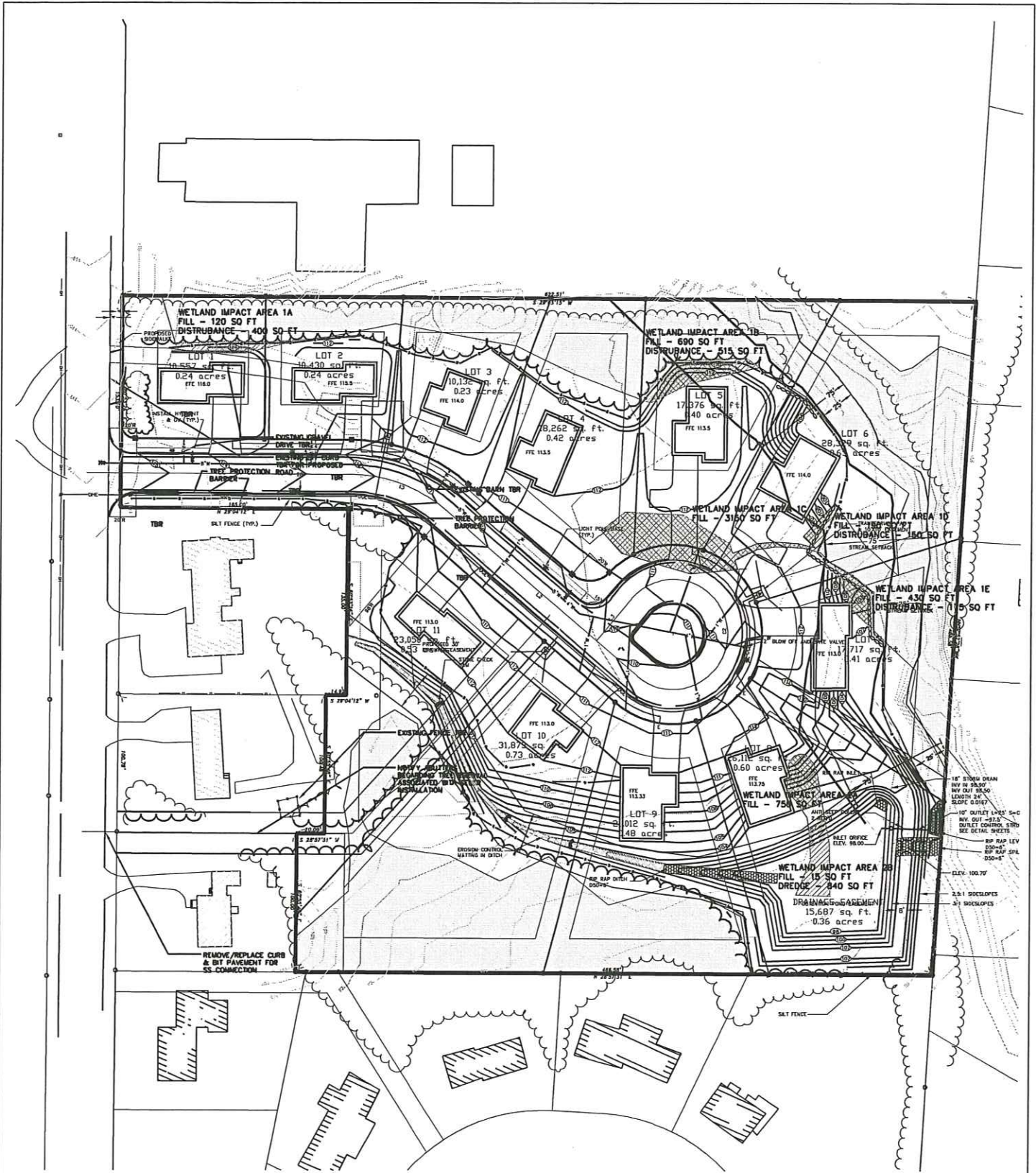
Dear Rod,

On Wednesday November 16, 2005, you made a determination of the delineation of wetlands on a 6+ acre parcel of land located on Summit Street in Portland. Present at the meeting in addition to you and I were representatives from Land Use Consultants, City of Portland, and the owner. We walked over the delineation I completed in June of 2005 and made a few modifications. The enclosed plan represents the changes made to the wetland delineation based upon our site walk. If you do not agree with the delineation please let me know as soon as possible so that we can discuss the changes. If the plan represents the correct wetland delineation, please contact in writing the City of Portland as soon as possible. Thank you for your time in this matter.

Sincerely,

Mark J. Hampton C.S.S., L.S.E.  
Certified Soil Scientist #216  
Licensed Site Evaluator #263

Cc: Mr. Tom Emery, Land Use Consultants  
Mr. Jim Seymour, City of Portland/Sebago Technics, Inc.



**engineers  
planners  
landscape  
architects**

966 RIVERSIDE STREET  
PORTLAND, MAINE 04103

Voice (207) 878 - 3313  
Fax (207) 878 - 0201  
landuse @ landuseinc.net

PREPARED FOR:  
Morningstar Real Estate Trust  
9 Craigie St  
Portland, Maine

TITLE:  
Overall Site Plan

SCALE: 1" = 100"

DATE: June 2006

JOB #: 2897.1

FIGURE #: 4.1



**Portland Water District**  
FROM SEBAGO LAKE TO CASCO BAY

LUC

SEP 28 2005

RECEIVED

September 26, 2005

Mr. Lynwood Myshrall, P.E.  
Land Use Consultants, Inc.  
966 Riverside Street  
Portland, Maine 04103

Re: Morning Star Lane, Portland

Dear Sir:

The Portland Water District has an 8" water main in Summit Street, Portland, near the proposed site. A test on a nearby hydrant produced the following results: static pressure 52 psi; with a flow of 1034 gpm. With these results in mind, the District feels we have sufficient capacity available to serve this proposed project and meet all normal fire protection and domestic water service demands. **Please notify your plumber of these results so that they can design your system to best fit the available pressure.**

With certification by the developer that all required permits have been received, we look forward to serving this project.

Sincerely,

PORTLAND WATER DISTRICT

David W. Coffin, PLS  
Engineering Supervisor



Attachment 10

**From:** "Howe, Rodney A NAE" <Rodney.A.Howe@nae02.usace.army.mil>  
**To:** "Jean Fraser" <JF@portlandmaine.gov>  
**Date:** 10/19/2006 1:05:25 PM  
**Subject:** RE: Morning Star Lane Sub division- Wetland Delineation

Jean,  
I would consider the watercourse an intermittent stream.  
Rod Howe

-----Original Message-----

From: Jean Fraser [mailto:JF@portlandmaine.gov]  
Sent: Tuesday, October 17, 2006 10:46 AM  
To: Howe, Rodney A NAE  
Subject: Re: Morning Star Lane Sub division- Wetland Delineation

Rod,

Sorry to trouble you again, but when you were on site did you form a view (or have any information that confirmed) whether the watercourse was a stream; and if so, whether intermittent or perennial?

thanks  
Jean

>>> "Howe, Rodney A NAE" <Rodney.A.Howe@nae02.usace.army.mil> 9/29/2006 11:09:36 AM >>>  
Hello Jean,

I apologize for not acting on this much sooner. I did receive Marks' November 25, 2005 letter and revised plan. I have reviewed the revised wetland delineation performed by Mark Hampton Associates for the Morning Star, LLC property off Summit Street at Portland, Maine. That plan includes changes made in the field by Mark Hampton and I during our site walk on November 16, 2005. I concur that the wetland boundary shown on that plan adequately reflects conditions observed in the field.

If I can be of any further assistance please let me know.

Thanks

Rod Howe  
Senior Project Manager

Attachment 11a

**From:** Marge Schmuckal  
**To:** Jean Fraser  
**Date:** 8/22/2006 4:22:56 PM  
**Subject:** Morningstar Lane Subdivision

Jean,

I have reviewed this subdivision for zoning compliance. Generally speaking, all the R-2 zone dimensional requirements are being met, realizing that the given building envelopes are only representative and not a zoning criteria.

Adjustments should be made as follows.

Lot #3: The scaling is off for the 25' front setback. Less than 25' is scaled.

Lot #4: the 80' minimum lot width affects the adjustment of the envelope shown in the rear of the lot.

Lot #8: the 80' minimum lot width affects the adjustment of the envelope shown in the front of the lot.

Lot #11: the 80' minimum lot width affects the adjustment of the envelope shown in the rear of the lot.

On the Record Plat page 1 of 1, the box showing net residential acreage/ density is not correct. The net land area calculations are only for PRUDS. This is not a PRUD. For what I understand, these are 11 single family, individual lots. This box should be removed entirely.

Marge Schmuckal  
Zoning Administrator



Attachment 11b

**From:** Gregory Cass  
**To:** Jean Fraser  
**Date:** 8/28/2006 8:07:55 AM  
**Subject:** Re: Morning Star Lane

The plans I recieved on 8-15-06 show a cul du sac that is 110' outside diameter and is 24' wide. This is acceptable to the Portland Fire Dept.

>>> Jean Fraser 8/24/2006 3:12:23 PM >>>  
Dan,

Thanks for your telephone call.

Re the size of the cul de sac, they have complied with Jim Seymours request that it be 56 feet radius "as per city standards" but Fire Department has asked for "62 feet diameter"?

Does the proposal as on the revised plan accommodate fire appliances?

Thanks  
Jean

MEMORANDUM

Attachment 11 c

05-232

**TO:** Jean Fraser, City of Portland Planner  
**FROM:** Dan Goyette, PE – Development Review Engineer, Woodard & Curran, Inc.  
**DATE:** August 29, 2006  
**RE:** Morningstar Lane Subdivision

---

Woodard & Curran has reviewed the Preliminary Subdivision and Site Plan Supplementary Information submission for the proposed project for the Morningstar Lane Subdivision. The project involves the development of an 11 lot residential from an existing 5.7 acre parcel.

**Documents Reviewed**

- Preliminary Subdivision and Site Plan Application Supplementary Information prepared by Thomas Emery, Land Use Consultants, dated July 26, 2006.
- Engineering plan set prepared by Land Use Consultants, sheets 1-12, Existing Conditions and Boundary Plan and Recording Plat all revised June 16, 2006.
- Letter to Jean Fraser, City of Portland Planner, dated October 24, 2006, from Jim Seymour, Sebago Technics.

**1. Stormwater Management**

- A. Although the pond has been designed to mimic the pre-development peak flow condition of the site, it does not adequately present information detailing that it will not result in downstream flooding. The new pond will discharge into an existing pond that does not have any type of outlet control device. The new time of concentration and extended peak flow from the new pond into the existing pond, may coincide with the peak flow from the existing pond, resulting in flooding. The peak flows from the pre-development condition and the current pond may have not lined up previously and therefore not resulted in flooding where they may now occur simultaneously.

**2. Erosion and Sedimentation Control**

- A. On sheet 8, the Erosion and Sedimentation Control Plan references the March 1991, Maine DEP Erosion and Sedimentation Control Handbook. Significant changes have occurred since this version was published. The note should reference the March 2003 version.

**3. General**

- A. Detail 4 on sheet 10, dimensions a 2' lift of bituminous concrete base course, grade "B", but the notation calls for 1 ½". This should be corrected to indicate 2" of base course.
- B. The survey for the subdivision does not coincide with approved City standards. The survey needs to be tied to the vertical datum of NGVD 1929. Also, the project needs to be tied to the Maine State Plane Coordinate System (2-zone projection), West Zone using the NAD 1983 (HARN) Datum and the U.S. Survey Foot as the unit of measure.

- C. A final subdivision plan will need to be generated showing standard survey notes, survey references, and City notes/requirements per subdivision standards. Also the final plan shall be sealed and signed by a State of Maine Licensed Surveyor.
- D. Granite monuments shall be set on one side of the street as directed by the City Engineer on the 3 foot offset Lines, as offset into the street, at all intersections, points of curvature, points of tangency, street angle points, and at the end of acceptance of the street. At a cul-de-sac a radius point monument shall be set, or if conflict arises with detention ponds etc, a second monument shall be set at the second point of reverse curvature point at the cul-de-sac. Monuments shall not be set over sewers, laterals, or other utilities. Where there is a conflict in the utilities shall be set in alternate locations, or all the monuments shall be set on the opposing side of the street.

DRG  
203848.66

cc: File

Attachment 11d

**From:** Marge Schmuckal  
**To:** Jean Fraser  
**Date:** 9/27/2006 2:39:17 PM  
**Subject:** Morningstar Lane

Jean,

As we discussed, the most recent submittal of plans along with a cover letter dated September 22, 2006 from Land Use Consultants, Inc. does not include the plan labeled "Recording Plat". However, the cover letter does suggest that all my zoning concerns have been addressed and rectified. Prior to any final sign-off, I would like to confirm the changes.

Marge

Attachment 11e

**From:** Jeff Tarling  
**To:** Jean Fraser  
**Date:** 9/28/2006 4:55:05 PM  
**Subject:** Morning Star Lane

Jean -

I have reviewed the proposed Morning Star Lane sub-division and offer the following comments:

**Tree Preservation** - The current subdivision plan as shown fails to adequately protect or save the large stand of White Pine trees near Summit Street that help define the character of the surrounding neighborhood. From a 'tree-save' perspective, shifting the existing roadway the east or along the adjacent church property line could save many of the important, mature trees identified on sheet 'Drawing 1' - Existing Trees & Removals and that were reviewed during previous site walks. The second area of concern is the amount of clearing shown at the rear of Lots 7 & 8 for the proposed detention pond. The plan shows **no** tree save buffer in this area along existing homes in adjacent subdivision increasing the impact to these residents. The plan also fails to save **any** specimen or groves of trees / existing vegetation between proposed house lots. It seems unfortunate that natural assets that currently exist on the site have not been designed into the proposed sub-division as "features" or amenities that could enhance the Morning Star project. Trees and existing vegetation seem to have been completely disregarded despite the important environmental benefit.

**Recommendations** - explore options to save the large character defining trees near Summit Street as discussed during site walks including increasing the buffer area along Lots 7 & 8 to minimize impact to the surrounding area. Review existing trees & existing vegetation between proposed house lots to identify any possible 'save' areas. This is a practiced used In areas where trees are to be saved, 'tree-save' notes and protection are needed to define on both the Landscape Plan and in the field. Notes include: work limits, prohibiting the storage of materials and equipment during construction in tree save areas by the use of temporary fencing or flagging. These measures or standards should be in place prior to any cutting or clearing.

**Landscaping** - The proposed landscape plan shows the "2-trees" per lot landscape standard. Tree types shown with the exception of Callery Pears shown on the lots near the cul-de-sac meet our recommended tree guidelines. Recent problems with Callery Pears has removed them from our recommended list. Due to the amount of clearing of the existing trees and vegetation additional trees should be planted between the proposed lots towards the rear of the proposed building envelopes to assist with screening / buffering. If additional tree-save buffers can not be established near the detention pond additional groves of evergreens, Spruce or White Pine (depending on the soil conditions) and / or groups of Red Maples are recommended to restore the existing buffer and reduce the impact on the surrounding neighborhood.

I would be available to meet with the Morning Star Land team to review recommendations as needed.

Jeff Tarling  
City Arborist

**CC:** Phillip Labbe

Attachment II f.

**From:** "Thomas Errico" <terrico@wilbursmith.com>  
**To:** "Jean Fraser" <JF@portlandmaine.gov>  
**Date:** 10/18/2006 3:35:43 PM  
**Subject:** Morning Star Subdivision

Jean -

I have reviewed materials for the above project and offer the following comments.

1. The location of the proposed development street maximizes the distance to the Grace Baptist Church Driveway (approximately 200 feet). It is my understanding that Summit Street in the vicinity of the project is classified as a Local Street. For a Local Street, the Technical Standard requires a minimum of 35 feet from the intersection of the projection of right-of-way lines to the center line of the driveway. Accordingly, the proposed project meets this Technical Standard. I would note that the proposed street could be shifted easterly (toward the church driveway), to the property line, and the separation standard would continue to be met.
2. This street meets engineering criteria for safe sight distance at the propose intersection with Summit Street. Sight distance should be re-measured if the driveway is re-located.
3. During my field investigation, travel speeds appeared to be excessive. Additionally, I did receive complaints about speeding from property owners in the area. It is my professional opinion that this section of Summit Street is a likely candidate for future traffic calming improvements. I would suggest that the applicant contribute \$5,000.00 towards the implementation of future traffic calming improvements on Summit Street between Lambert Street and Washington Avenue. The contribution shall be placed in an escrow account and returned to the applicant after ten years if it is not used.

If you have any questions or comments, please call me.

Thomas A. Errico, P.E.

Senior Transportation Engineer

Wilbur Smith Associates

59 Middle Street

Portland, Maine 04101

(207) 871-1785 Phone

(207) 871-5825 Fax

**CC:** "James Carmody" <JPC@portlandmaine.gov>

**MEMORANDUM****05-232**

**TO:** Jean Fraser, City of Portland Planner

**FROM:** Dan Goyette, PE – Development Review Engineer, Woodard & Curran, Inc.

**DATE:** October 19, 2006

**RE:** Morningstar Lane Subdivision

---

Woodard & Curran has reviewed the Preliminary Subdivision and Site Plan Supplementary Information submission for the proposed project for the Morningstar Lane Subdivision. The project involves the development of an 11 lot residential from an existing 5.7 acre parcel.

**Documents Reviewed**

- Response to Comments prepared by Thomas Emery, Land Use Consultants, dated August 31, 2006 to Jean Fraser.
- Engineering plan set prepared by Land Use Consultants, sheets 1-12, Existing Conditions and Boundary Plan and Recording Plat all revised September 22, 2006.

**1. Stormwater Management**

- A. The delineation of the intermittent stream stops at the property line. The 25' offset line also terminates when the stream crosses the property line. The plans do not show that the stream continues to flow close to the property line before entering the existing detention basin. The offset line and the intermittent stream should be shown in its entirety. This would then require that the detention pond be located at a minimum 25' from the stream and thus 25' from the property line.
- B. The applicant has failed to demonstrate that the downstream piping can adequately handle the development's stormwater. The applicant states that it is "unlikely" to cause downstream flooding. The downstream piping should be modeled to demonstrate that it is adequate.
- C. The applicant indicates that the existing pond has a capacity of 39,500 cubic feet of storage. It would appear that the applicant could approach the property owners on which the pond exists and possibly utilize the existing structure. This could negate a large amount of clearing and regrading associated with the proposed pond.

**2. General**

- A. A final subdivision plan will need to be generated showing standard survey notes, survey references, and City notes/requirements per subdivision standards. Also the final plan shall be sealed and signed by a State of Maine Licensed Surveyor.
- B. Granite monuments shall be set on one side of the street as directed by the City Engineer on the 3 foot offset Lines, as offset into the street, at all intersections, points of curvature, points of tangency, street angle points, and at the end of acceptance of the street. At a cul-de-sac a radius point monument shall be set, or if conflict arises with detention ponds etc, a second monument shall be set at the second point of reverse curvature point at the cul-de-sac. Monuments shall not





be set over sewers, laterals, or other utilities. Where there is a conflict in the utilities shall be set in alternate locations, or all the monuments shall be set on the opposing side of the street.

DRG  
203848.66

cc: File

Attachment 11h.

**From:** Katherine Earley  
**To:** Fraser, Jean  
**Date:** 10/18/2006 1:38:02 PM  
**Subject:** Re: Morning Star Lane sub Division

Hi Jean:

As a result of our DPW Review meeting yesterday here's what we have to offer for the Oct. 24th workshop:

1. There are no comments from our Transportation Engineer; ie no concerns.
2. Our Operations Manager review has only one concern related to maintaining the landscaped area within the cul-de-sac. We recommend a low maintenance landscaping of that area and note it will likely receive snow and ice from winter operations. Additionally, we suggest that the Homeowner's Association take on the responsibility for mowing and upkeep of the landscaped center of the cul-de-sac.
3. There are multiple concerns related to Civil Engineering review, many were provided in the memo from Michael Farmer, and more will be identified in a memo to come from Dan Goyette. We may be unable at this time to pinpoint the exact details of any stormwater system deficiencies resulting from this proposed development since apparently no modeling has been done, so expect to see that reflected in the comments from Dan. In addition, has the applicant pursued a system capacity letter from us yet?

Kathi

## MEMO

TO: Katherine Earley, Engineering Manager  
Eric Labelle, City Engineer  
FROM: Mike Farmer  
DATE: October 11, 2006  
RE: Morningstar Lane Subdivision

I am submitting the following comments regarding Morningstar Lane Subdivision on behalf of the Engineering Division.

- The sewer easement from SMH-1 to SMH-3 should be granted to the City if the sewer system in the project is going to be turned over to the City.
- SMH-3 should be 3 feet right of the street centerline (not 7.97') to be in the legal location. Changing the location of SMH-3 to 3 feet from centerline may require additional manholes.
- Storm drain house laterals for lots 1 and 7 should connect to the storm drain main, not into drain manholes.
- CB-1 should be moved away from the edge of a driveway; 13 feet or more from the center of a catch basin to the edge of a driveway works.
- In Detail 14 on sheet 10, we recommend 7-foot granite curb tipdowns.
- In Detail 13 on sheet 10, the sidewalk ramp detail should show that granite curb is required across the bottom of the ramp.
- In Detail 5 on sheet 11. The wrong manhole frame and cover size is specified. A 24" diam. by 5" high frame should be used; refer to the City's standard details. Detail 5 calls for 1-3 courses of brick to be used to set the frame. This should be corrected to meet the City standard, which currently requires 3-8 courses. Detail 5 calls for a prefabricated fiberglass manhole channel. The City standard calls for brick and mortar manhole channel and shelf, with solid masonry fill beneath. If the developer wants to use prefabricated fiberglass manhole channels, shop drawings should be submitted to DPW and approved as part of the preconstruction review.
- The "Curb Legend" symbols listed in the legend do not match the symbols on the plan and profile sheets.
- The distance between street light poles should not exceed 130 feet. The two poles near the cul-de-sac are farther than 130 feet apart. Moving the pole in front of Lot 4 toward the cul-de-sac allow the poles to be less than 130 feet apart.
- The granite curb radii at the cul-de-sac should be changed to match the City standard design detail.
- The proposed details on sheet 12 show that corrugated metal pipe is proposed for the detention pond riser and outlet pipe. We recommend changing the type of pipe to reinforced concrete or HDPE for longer service life.
- The cover sheet states Magnetic 1983 as the basis of bearing. It should be grid north NAD83(HARN) Maine State Plane.
- The cover sheet states "City of Portland Datum Benchmark R.O.W. Monument At Southwesterly Intersection of Berry Ave, and Washington Avenue, Elevation: 76.50."

The DPW Engineering Official Benchmark Card File has 2 monuments at that intersection.

- 1st at southwest corner, elevation 75.796'
- 2nd at southeast corner, elevation 76.50'
- Note that they stated the incorrect elevation for the monument at the Southwesterly Intersection. In addition, those monuments are a long way from the project site. Were they really used? (see following comment).
- The sheet between the cover sheet and LUC drawing number 1 is titled "Plan of Property Existing Conditions Survey" by Titcomb Associates dated July 6, 2005, Rev. 2, 9/06/06. This states that bearings are True North. Magnetic North was used on the cover sheet. This sheet also states that the City of Portland Benchmark used is the monument at the corner of Jackson Street and Summit Street. Was the Jackson St/Auburn St monument used or the monument referred to in the previous comment?
- Sheet 2. Proposed 30' Drainage Easement on Lot 11. The plan does not state who will own it. We suggest that it be changed to "Private 30' Drainage Easement".
- Sheet 2. The survey monuments should be shown on the 3 foot offset line.
- Sheet 2. No State Plane Coordinates stated on 2 monuments.
- Sheets 2 & 3. 18" Storm Drain from Cul-De-Sac. The plan does not state who will own it. Will it be conveyed to the City of Portland?
- On sheets 2 and 3, the storm drain pipe material should be specified as SDR 35 PVC or reinforced concrete if the pipe will be turned over to the City.
- Will the detention pond easement be conveyed to the City of Portland or will it be private?
- On sheet 4, the proposed easement ownership should be noted.
- The survey monument detail shown on sheet 9 has been superseded. The new detail should be shown on the plans.



**Land Use Consultants,**  
*engineers . planners . landscape architects*  
966 RIVERSIDE STREET PORTLAND, MAINE 04103

Attachment 12

Via e-mail

**October 10, 2006**

**2897**

**To: Jean Fraser, Planner**  
Department of Planning and Urban Development  
City Hall, 389 Congress Street  
Portland, Maine 04101

( 8 pages )

**From:** Thomas N. Emery, RLA, Land Use Consultants, Inc.

**Subject:** Morningstar Lane Subdivision – 10.03.06 mtg. follow up.

**Dear Jean:**

As you requested during our meeting of October 03, 2006, we are providing responses to your questions. In addition to the narrative provided under items 'B' and 'C' below, we are also including the following attachments:

**A. Attachments.**

**Attachment #1.** Stormwater Run off summary prepared by Lynwood Myshrall, PE, Land Use Consultants, Inc;

**Attachment #2.** Legal interpretations regarding stormwater runoff, prepared by James N. Katsiaficas, Esq. Perkins Thompson with deed.

**Attachment #3.** Buffer: 8-1/2"x11" pdf files showing the existing trees near Summit St. and Existing trees and supplemental buffer plantings, southwest property corner.

**B. Alternative Layout studies:**

You asked us to explore alternative access points and entrance road alignments to see if trees might be preserved near the Summit St. frontage. We prepared three alternatives with the following results:

- **Alternative #1.** Shift entrance road to east to provide 80 ft wide lot fronting Summit Street:  
Alternative #1 resulted in an overall layout very similar to that already submitted except that the access road right of way has been shifted 80 ft. to the east and a single house lot abuts #514 Summit St. It appears that the group of pine closest to Summit Street could be saved. However, the plan results in the loss of at least one lot. This layout also impacts a portion of the wetlands contiguous with the church lot due to the road shift.
- **Alternative #2.** Shift road so that the 50-ft. right of way is contiguous with the Church boundary:  
Alternative #2 the road is shifted to the east and the centerline alignment is changed from a gentle obtuse angle to a sharp, 90-degree bend. Again, at



least one lot is lost and more than 10,800 sq. ft. of additional wetland fill is required.

- Alternative #3 Similar to #2 with change in interior alignment and location of cul-de-sac:

Alternative #3 is similar to alternative #2. Again the road is shifted to the east and the centerline alignment is changed from a gentle obtuse angle to a sharp, 90-degree bend. There are 3 lots located on the westerly side of the right of way parallel to the side lot line of #514 Summit St. It appears that 11 Lots may fit; however, the sewer easement is impacted. The stormwater diversion swale located behind current Lots 8-11 would have to be constructed in wetland. As with Alternative #2, more than 10,800 sq. ft. of additional wetland fill is required.

**C. Buffers and Existing Tree preservation:**

Additional mature trees were field located in the southwest portion of the lot, near the proposed detention basin. More pine stands were located near the front of the site in addition to the evergreen trees located near Summit St. included with the last submittal.

It appears that the only trees along the southwesterly corner of the property contiguous with Lester Drive subdivision that will need to be removed are 3 to 4 trees near the proposed detention overflow.

The proposed infill buffer in the southwest corner of the property contiguous with Fieldstone Subdivision will be modified to comply with the "City of Portland, Maine Technical and Design Standards and Guidelines", Sec. VI Arboricultural Specifications and Standards of Practice and Landscape Guidelines, Illustration VI-4, Compatible Uses. Although the standards do not strictly apply as the proposed development is not Commercial or PRUD, this is the reference that would appear to most closely apply. Illustration VI-11, Buffering between contrasting uses does not apply because Morningstar Lane is a single family subdivision which abuts existing, single family subdivisions.

The modified buffer shall include:

Deciduous trees (Red Maples) spaced 20' to 30'; deciduous and evergreen trees/shrubs (Hemlock, Fir) will be located in staggered, naturalized arrangement spaced 6-8 ft or as the plant sizes allow. A pdf document of this layout is attached.

If you have any questions or comments, please don't hesitate to call.

Sincerely,

*Thomas N. Emery*

Thomas N. Emery, RLA  
Land Use Consultants, Inc.  
Encl.



Land Use Consultants, Inc.

e n g i n e e r s  
p l a n n e r s  
l a n d s c a p e  
a r c h i t e c t s

# Memorandum

<b>To:</b> Jean Fraser Portland Planning Board	<b>Date:</b> 10/10/06
<b>From:</b> Lynwood Myshrall, PE	<b>Job. No.</b> 2897
<b>Phone:</b>	<b>Project:</b> Morning Star Lane
<b>Fax:</b>	<b>Pages:</b>
<b>Re:</b> Storm Water Impacts to Down Stream Properties	<b>cc:</b>

Jean,

Per your request, this memo is to clarify the storm water runoff and down stream impacts associated with the proposed Morning Star Lane Subdivision. Abutting properties owners especially down stream are concerned that the improvements to the Morningstar property will increase runoff due to the loss of vegetative cover and the addition of impervious area associated with the new roadway, driveways and houses.

The site is presently wooded consisting predominantly of pine, hemlock, oak and maple trees. The site slopes primarily from east to west towards Fieldstone Subdivision that abuts the western property line and towards the south and a degraded urban stream that runs from east to west parallel to the southern property line.

The proposed site consists of 11 lots and a 600'+/-long road ending in a cul-de-sac. The roadway consists of a storm drain system that will collect the runoff from the roadway, driveways and the front of the lots and direct it to a detention pond proposed to be located at the southwest corner of the property. Swales are proposed between lots 1, 2, 3, 4, and 5 that will collect runoff from the sides of these lots and direct it to the roadway and storm drain system. A swale is proposed behind the houses on lots 9, 10, and 11 that will collect runoff from these lots and direct it to the detention pond. This swale will prevent runoff from entering the abutters' property in the Fieldstone Subdivision. The rear of lot 8 abuts the detention pond and all runoff at the rear of this lot will go directly into the detention pond.

With the system of storm drains, swales and detention pond approximately 96% of the impervious area and 81 % of the lawn area will be directed to the detention pond.

Prior to development 1.66 acres of the site flowed onto the Fieldstone Subdivision. With the new development in place, approximately 0.95 acres of the site will flow onto the Fieldstone Subdivision. No impervious area and no new lawn area will flow onto the Fieldstone Subdivision.

966 RIVERSIDE STREET  
PORTLAND, MAINE 04103

voice (207) 878 · 3313  
fax (207) 878 · 0201  
landuse@landuseinc.net

Additionally, the City of Portland Ordinance stipulates that postdevelopment runoff cannot exceed predevelopment runoff. The detention pond reduces the post development runoff to predevelopment runoff levels or less. See tables below.

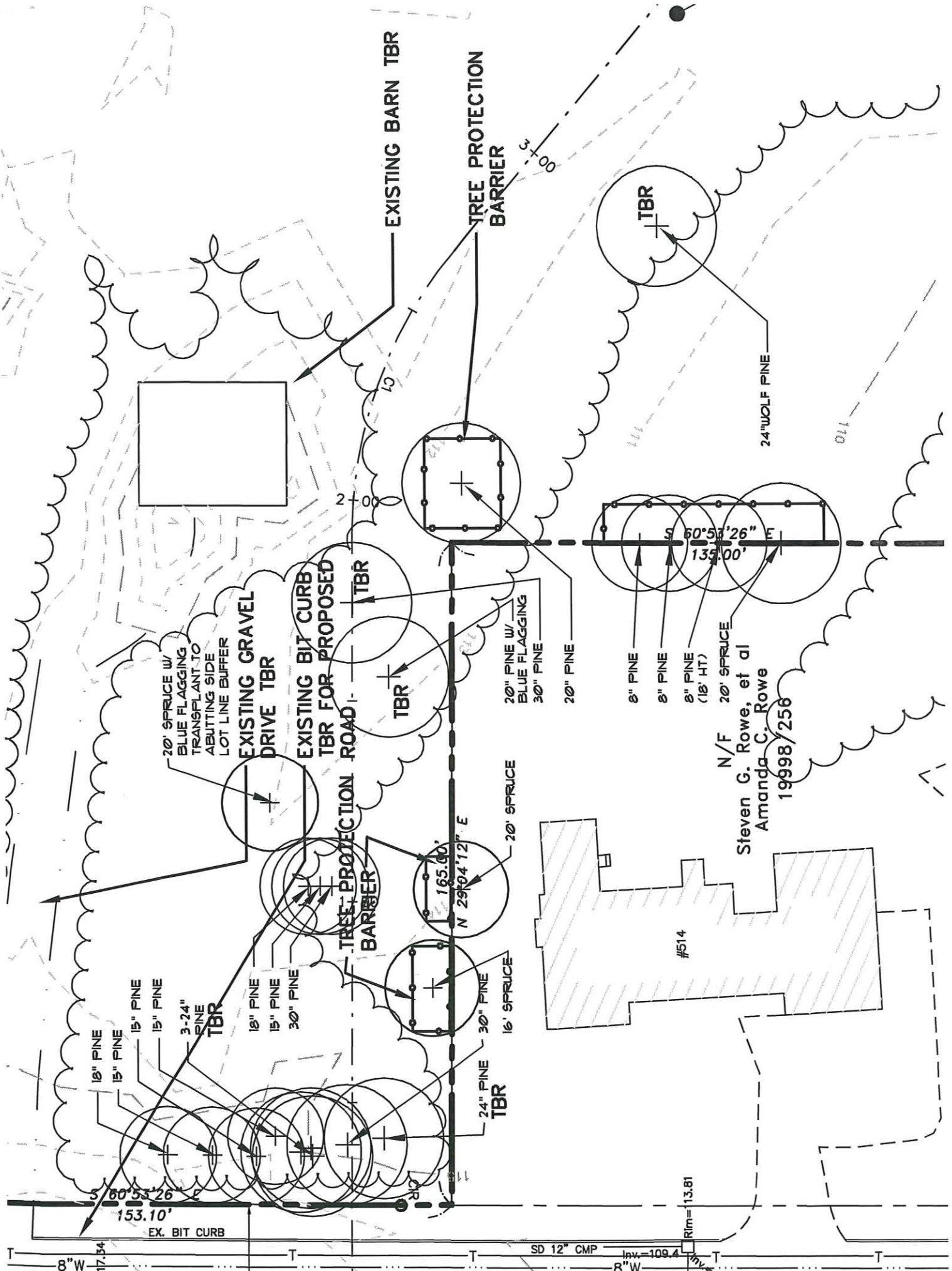
<b>Table 1</b> <b>Peak Runoff Rates (cfs)</b> <b>Points of Interest</b> <b>Existing Detention Pond</b>			
<b>Design Storm</b>	<b>Predevelopment</b>	<b>Postdevelopment</b>	<b>Difference</b>
2 Year	2.51	1.87	<b>-0.64</b>
10 Year	5.78	4.72	<b>-1.06</b>
25 Year	7.44	5.74	<b>-1.70</b>

<b>Table 2</b> <b>Peak Runoff Rates (cfs)</b> <b>Points of Interest</b> <b>Western Property Line Fieldstone Subdivision</b>			
<b>Design Storm</b>	<b>Predevelopment</b>	<b>Postdevelopment</b>	<b>Difference</b>
2 Year	0.76	0.63	<b>-0.13</b>
10 Year	1.75	1.46	<b>-0.29</b>
25 Year	2.25	1.87	<b>-0.38</b>

Land Use Consultants, Inc. has analyzed the existing detention pond and outlet culvert. The pond has in excess of 39,500 cf of available storage and has approximately 9 ft. of depth to overcome prior to flooding. The pond discharges into a 24" culvert that in turn discharges into a 24" storm drain in Lester Drive. The Lester Drive storm drain discharges out of a 24" pipe under Washington Avenue to an open channel beyond. The open channel then flows through a 36" culvert under the railroad tracks approximately 300 feet down stream. Considering the size of the Morning Star drainage area and the downstream capacity and the fact that detention is being provided it is unlikely that Morning Star Lane Subdivision will cause downstream flooding.

For detailed assessment, including pre- and post-development plans please see Stormwater Management and Erosion Control Report submitted earlier.





N/F  
 Steven G. Rowe, et al  
 Amanda C. Rowe  
 19998/256

# 1d Acres II Subdivision

Plan reference #2)

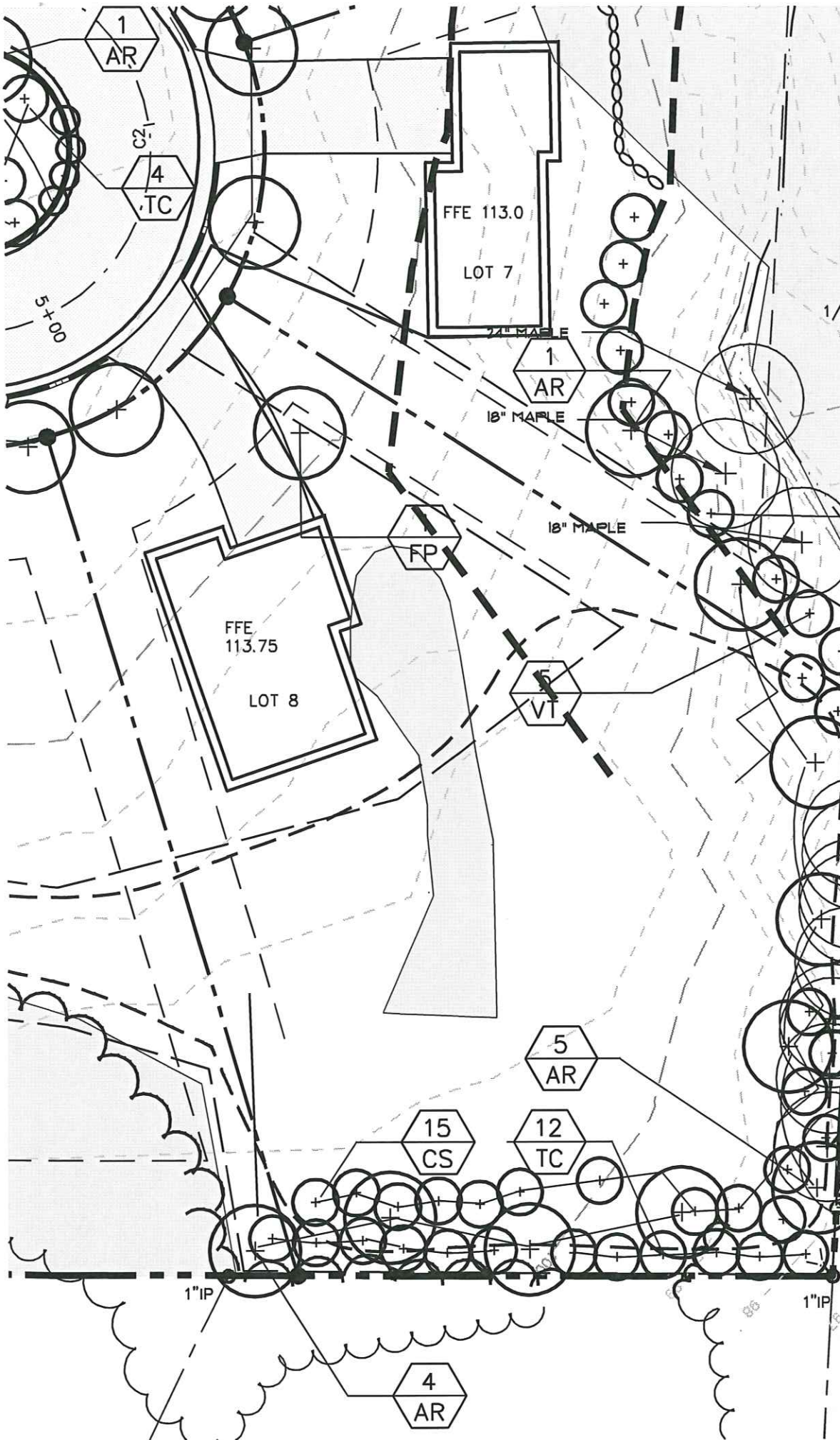
N57°52'28"W  
488.58'

1/2" IR

8  
TC

- 24" MAPLE
- 15" MAPLE
- 26" MAPLE
- 15" MAPLE
- 12" MAPLE
- 24" MAPLE
- 18" MAPLE
- 42" MAPLE
- 24" MAPLE
- 18" MAPLE

N/F  
Lawrence I Wing  
Carol A. Wing  
23091/333



1  
AR

4  
TC

FFE 113.0  
LOT 7

1  
AR

FFE 113.75  
LOT 8

FP

5  
VT

5  
AR

15  
CS

12  
TC

4  
AR

**From:** "Thomas N. Emery, RLA" <temery@landuseinc.net>  
**To:** "Jean Fraser" <JF@portlandmaine.gov>  
**Date:** 10/11/2006 11:28:32 AM  
**Subject:** RE: Morningstar Ln 2897 Mtg Reply 10-10-06

Jean,

For Alt. #1, roughly, about 2,000 sq. ft additional wetland fill (but again loss of lot). These are hand sketches, no grading or engineering.

Tom

Thomas N. Emery, RLA  
Land Use Consultants, Inc  
966 Riverside Street  
Portland, ME 04103  
v 207.878.3313  
f 207.878.0201

-----Original Message-----

From: Jean Fraser [mailto:JF@portlandmaine.gov]  
Sent: Wednesday, October 11, 2006 10:40 AM  
To: Thomas N. Emery, RLA  
Subject: Re: Morningstar Ln 2897 Mtg Reply 10-10-06

Tom,

I have received and printed these out; the City's Corporation Counsel is reviewing the letter from the attorney as I write.

Could you please confirm re Alternative 1 of the three exploring the road relocation the amount of additional wetland fill would be required.

Thanks  
Jean

>>> "Thomas N. Emery, RLA" <temery@landuseinc.net> 10/11/2006 8:33:09 AM >>>  
Hi Jean,

As requested, I am attaching the following:

1. Cover letter LUC.
2. Att. 1 Storm water memo L. Myshrall, PE LUC
3. Att. 2 Legal interpretations with Deed attached by James Katsiaticas, Esq.
4. Att.3 Additional trees near Summit St and existing and proposed buffer SW corner of site.

We are still awaiting response from Woodlot Alternatives regarding the

degraded, urban stream. We will provide that information to you as soon as it is received.

Please note, that I have described the alternative layouts requested and the potential impacts. We have not included these hand sketches but can present them at the Planning Board Workshop.

Please let me know if you require any further information. Thank you for meeting with us.

Regards,

Tom Emery

Thomas N. Emery, RLA  
Land Use Consultants, Inc  
966 Riverside Street  
Portland, ME 04103  
v 207.878.3313  
f 207.878.0201

**CC:** "Lynwood Myshrall" <lmyshrall@landuseinc.net>

na email pdf 10-11-06  
Attachment 13

**PERKINS THOMPSON**  
ATTORNEYS & COUNSELORS AT LAW

(15 pages)

ESTABLISHED 1871  
ONE CANAL PLAZA  
PO BOX 426  
PORTLAND ME 04112  
TEL 207.774.2635  
FAX 207.871.8026

www.perkinsthompson.com

October 10, 2006

Thomas N. Emery, RLA  
Land Use Consultants, Inc  
966 Riverside Street  
Portland, ME 04103

Re: Morningstar Lane Subdivision

Dear Tom:

I understand you have discussed several issues regarding the proposed Morningstar Lane Subdivision with Portland Planner Jean Fraser, and that one of the remaining sets of issues concerns storm water impacts. In particular, there are three areas of concern: (1) the neighbors are concerned about additional runoff; (2) the City is unclear about the existing detention basin and the rights with regard to the City's "Maintenance Easement"; and (3) the Planner is unclear about overall storm water drainage. I offer the following comments on these concerns from a legal perspective.

1. First, as to the neighbors' concern about additional runoff, the state of storm/surface water law in Maine is this. Maine follows the old common law (judge-made law) rule on storm/surface water flowage, which holds that storm water is the "common enemy" of each landowner. Therefore, each landowner may sheet flow surface water from his, her or its unimproved property onto adjoining property without liability. With one exception, if a landowner should grade or construct improvements upon the property, the landowner may continue to discharge surface water (storm water) onto a neighbor's property without liability, so long as the landowner does not artificially collect surface water and direct it onto another's property (as with a drain, dam or impoundment). That exception is a new law Maine's Legislature has enacted that becomes effective January 1, 2007, P.L. 2005, C. 564, "An Act to Prohibit Changing the Flow of Water on Another's Land." This new law modifies the "common enemy" rule to provide that: "Unreasonable use of land that results in altered flow of surface water that unreasonably injures another's land or that unreasonably interferes with the reasonable use of another's land is a nuisance."

As to the drainage issues here, I understand that the subdivision parcel itself is the victim of the "common enemy" rule, since the wet areas of the lot and drainage across its southwest areas result from runoff from the impervious surface of the adjoining Grace Baptist Church parking lot. When the Church received Planning Board site plan approval, it showed a rear parking area, located in the direction of water

- DOUGLAS S. CARR
- PHILIP C. HUNT
- JOHN S. UPTON
- PEGGY L. McGEHEE
- MELISSA HANLEY MURPHY
- JOHN H. RICH III
- JOHN A. CIRALDO
- JOHN A. HOBSON
- JAMES N. KATSIARICAS
- TIMOTHY P. BENOIT
- J. GORDON SCANNELL, JR.
- FRED W. BOPP III
- MARK P. SNOW
- WILLIAM J. SHEILS
- DAVID B. McCONNELL
- PAUL D. PETROPAOLI
- HOPE CREAL JACOBSEN
- RANDY J. CRESWELL
- JENNIFER H. PINCUS
- DAWN M. HARMON
- KATHERINE A. JOYCE
- BRIANNA ADAMS
- CHRISTOPHER M. DARGIE
- ANTHONY J. MANHART
- STEPHANIE A. WILLIAMS
- OF COUNSEL**
- THOMAS SCHULTEN
- OWEN W. WELLS
- ANDREW A. CADOT
- JULIANNE C. RAY
- CATHERINE O'CONNOR

flowage, that consisted of gravel. However, because the Planning Board did not require this area of the parking lot to remain gravel by order or by a specific condition of approval, the Maine Supreme Judicial Court held that the Church's paving of that graveled area did not violate the site plan approval (copy of *City of Portland v. Grace Baptist Church* enclosed). I understand that therefore, the lack of a Planning Board's order or condition of approval on the neighboring property to prevent the paving has led to drainage from the paved area onto and across the subdivision parcel (and to wet areas on the subdivision parcel that now are being characterized as wetlands). Two residential subdivisions approved by the Planning Board and constructed in the 1980s abut the subdivision parcel on two other sides, and also contribute to drainage issues.

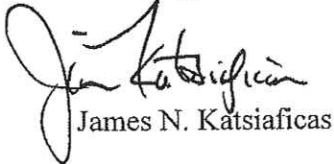
As to additional runoff attributable to the proposed subdivision, I understand that Land Use Consultants has prepared a storm/surface water runoff plan to accommodate runoff: from the Church parking lot onto the subdivision parcel; from the subdivision parcel; and from new impervious surface (structures, roads and driveways) that would be created by development of the subdivision. In order to protect neighboring properties from increased storm/surface water flows, the City of Portland's Technical and Design Standards specify that postdevelopment runoff rates cannot exceed predevelopment runoff rates. The subdivision's storm water drainage system is designed to comply with those Standards and therefore, the subdivision's storm/surface water flows should have no negative impact upon the subdivision parcel's neighbors. Also, as a result of compliance with those Standards, the storm/surface water runoff from the proposed subdivision should not become an "Unreasonable use of land that results in altered flow of surface water that unreasonably injures another's land or that unreasonably interferes with the reasonable use of another's land" that would be a nuisance under the new State law.

2. Second, the proposed drainage system must outlet to the City's storm water drain system. Under State law, we must ask the City for permission to attach the subdivision storm drainage to the City's storm drainage system. 30-A M.R.S.A. §§ 3421, *et seq.* We understand that the City's Public Works Department considers its approval of the subdivision's infrastructure during the subdivision review process to constitute that permission. Here, the City has accepted a drainage easement over adjoining property. That drainage easement is described in a deed dated February 20, 1985 from Kasprzak, Inc. to the City of Portland, recorded in Book 6792, Page 201 of the Cumberland County Registry of Deeds, a copy of which is enclosed. That deed shows that the City's drainage easement is bounded in part by the subdivision parcel ("N/F Dorler"). Therefore, upon approval by the City Public Works Department and by the Planning Board, Morning Star Realty Trust LLC should be able to connect its surface water drainage directly to the City easement without any additional easement or permission.

Thomas N. Emery  
10/10/2006  
Page 3

3. Third, I hope that the above satisfactorily addresses and summarizes the legal issues, both generally and in the context of the proposed subdivision parcel and of the neighboring properties. If further information or research is necessary to assist the City's planning staff or the Planning Board, I will be glad to help provide that information or research.

Sincerely,



James N. Katsiaficas

cc: Ronald Dorler

Citation/Title

552 A.2d 533, City of Portland v. Grace Baptist Church, (Me. 1988)

\*533 552 A.2d 533

Supreme Judicial Court of Maine.

CITY OF PORTLAND

v.

GRACE BAPTIST CHURCH.

Argued Sept. 13, 1988.


Decided Dec. 12, 1988.

City filed land use citation and complaint against church alleging violation of municipal site plan ordinance and seeking injunctive relief and assessment of civil penalty. The District Court, Portland, Cleaves, J., found church did not violate ordinance. On appeal, the Superior Court, Cumberland County, Perkins, J., affirmed. On further appeal, the Supreme Judicial Court, Glassman, J., held that: (1) church's clearing and filling activities in wooded area did not require board approval; (2) church's extension of gravel parking lot to meet capacities indicated on prior submitted site plan did not require Board approval; and (3) paving of gravel parking lot was not "development" within meaning of ordinance.

Affirmed.

Hornby, J., dissented with opinion.

West Headnotes

[1] Zoning and Planning  372.6

414 ----

414VIII Permits, Certificates and Approvals


414VIII(A) In General

414k372.1 Maps, Plats, or Plans, Filing or Approval Requirement

414k372.6 Other Considerations.

(Formerly 414k372.1)

Since wooded area on church's site plan was not labeled as "screening" on map submitted to municipal zoning board, and board did not impose specific conditions on its initial approval of plan, church's clearing and filling of wooded areas did not require Board approval.

[2] Zoning and Planning  418

414 ----

414VIII Permits, Certificates and Approvals

414VIII(B) Automobile Service, Garages and Parking Lots

414k416 Grounds for Grant or Denial in General

414k418 Garages and Parking Lots.

Since church's earlier site plan submitted to municipal zoning board marked



552 A.2d 533, City of Portland v. Grace Baptist Church, (Me. 1988)

out gravel parking lot area with broken lines and identified lot's capacity as 50 vehicles, church did not violate site plan ordinance by extending gravel lot almost 25 feet beyond that shown on plan, since extension was required to accommodate 50 vehicles as indicated.

[3] Zoning and Planning ↪ 372.6

414 ----

414VIII Permits, Certificates and Approvals

414VIII(A) In General

414k372.1 Maps, Plats, or Plans, Filing or Approval Requirement

414k372.6 Other Considerations.

(Formerly 414k372.1)

Church's paving of gravel parking lot was not "development" within meaning of municipal site plan ordinance and thus church did not require zoning board approval prior to paving it.

\*534 David A. Lourie (orally), Corp. Counsel, City of Portland, Portland,<sup>C</sup> for plaintiff.

John E. Geary (orally), Richard A. Davis, Portland, for defendant.

Before WATHEN, GLASSMAN, CLIFFORD and HORNBY, JJ.

GLASSMAN, Justice.

The plaintiff, City of Portland (City), appeals from the judgment of the Superior Court (Cumberland County, *Perkins, J.*), affirming the judgment of the District Court (Portland, *Cleaves, J.*), that the defendant, Grace Baptist Church (Church), did not violate the Portland Site Plan Ordinance. The City contends that the court erred in holding that the approval of the Portland Planning Board (Board) was not required before the Church cleared and filled an undeveloped portion of its land and extended and paved a parking area. For the reasons hereinafter set forth, we affirm the judgment.

In the spring of 1983, the Church submitted to the Board a site plan for its approval of the construction of a family activity center on the easterly side of the existing church building on Summit Street in Portland and a paved parking lot for 176 vehicles and an unpaved, gravel parking lot for approximately 50 additional vehicles. Together with the Church's existing buildings, the proposed developed area would utilize approximately two acres of an approximate 10-acre parcel owned by the Church.

At a meeting on April 12, 1983, the Board unanimously approved the proposed development, subject only to approval of the Church's landscaping plan by the city arborist. After securing a building permit, the Church completed the development, including landscaping, in accordance with the approved plan.

During the next few years, the Church cleared and filled a substantial portion of a wooded area depicted on the site plan as being northerly of and

552 A.2d 533, *City of Portland v. Grace Baptist Church*, (Me. 1988)

adjacent to the developed area. The Church also extended and paved the gravel lot approximately twenty-five feet beyond the area designated on the approved site plan. Pursuant to the procedure set forth in M.R.Civ.P. 80K, the City filed a land use citation and complaint against the Church in the District Court, alleging that by this activity the Church had violated the Site Plan Ordinance \*535 and seeking injunctive relief and the assessment of a civil penalty.

After a hearing, the court found that there were no express restrictions imposed by the Board prohibiting alterations to the undeveloped area of the site plan and that the Church's clearing and filling activities did not constitute "development" under the ordinance. (FN1) The court also found that the extension and paving of the gravel lot did not alter the approved site plan or constitute a "development" under the ordinance and entered a judgment for the Church. On appeal, the Superior Court affirmed the judgment of the District Court, and this appeal followed.

#### I.

[1] The City first contends that the Church had to obtain Board approval before clearing and filling an undeveloped portion of the approved site plan. The City argues that this undeveloped portion of the site screened the development and handled drainage problems created by the developed portion of the site and, therefore, could be disturbed only with further Board approval. We disagree.

We have previously stated that in construing an ordinance it is our duty to ascertain and effectuate the intent of the legislative body. *Moyer v. Board of Zoning Appeals*, 233 A.2d 311, 317 (Me.1967). In determining legislative intent, we first examine the language of the ordinance. *Id.* Unless the ordinance itself discloses a contrary intent, the plain meaning of the words controls. *Id.* Ordinances that curtail and limit use of real estate must be strictly construed, and their provisions may not be extended by implication. *LaPointe v. City of Saco*, 419 A.2d 1013, 1015 (Me.1980).

Section 14-521 of the Portland Site Plan Ordinance states the ordinance's purpose:

[T]o encourage the use of the best planning by private developers in an age where there is available sophisticated technology in building and design; and to promote the growth of the city in a manner that will not only provide its citizens with a safe, healthy and beneficial environment but will also protect property values and thereby secure the fiscal base for public services....

To further the purpose of the ordinance, the Board has the authority under the ordinance to approve a site plan with conditions. (FN2) Section 14-526 (b) of the Site Plan Ordinance sets forth the requisites of a final site plan for a major development. It requires a scaled map of, *inter alia*, boundaries of the

552 A.2d 533, City of Portland v. Grace Baptist Church, (Me. 1988)

site; total land area of the site; topography of the entire site; location of watercourses, marshes, rock outcroppings, and wooded areas; ground floor area and elevations of buildings and structures existing and proposed; approximate location of buildings or structures on abutting parcels; landscape plan showing location, type and approximate size of plantings; and the location and dimensions of all fencing and screening.

In the instant case, the Church, in conformity with the ordinance, on its map submitted to the Board indicated, *inter alia*, the "wooded areas," (FN3) "topography," and its "landscape plan." While "wooded areas" can be "screening," it cannot be presumed that the area designated on the map as "wooded" was proposed by the Church to be "screening" unless so labeled. The Church did not label the "wooded area" as "screening," or propose in its landscaping plan to screen the area north of the proposed development. Nor can it be presumed that the "topography" of the total land area adjacent to the actual development site would remain as shown on the map. The map enabled the Board to assess the impact of the proposed development on \*536 the surrounding area and, if required to further the purposes of the Site Plan Ordinance, to impose specific conditions to its approval of the proposed development. The City agrees, as it must, that the Church fully complied with the only condition imposed by the Board. The trial court properly held that by its clearing and filling activities the Church had not violated the Site Plan Ordinance.

## II.

The City further contends that when the Church extended and paved the gravel parking area, it altered the approved site plan and "developed" land without the requisite Board approval. We reject this contention.

[2] The site plan proposed a 176-space, paved parking lot, as well as an unpaved gravel lot. Unlike the proposed paved lot, the gravel lot was outlined by broken lines on the map. By applying the scale of the map to the area marked by the broken lines, the area extends approximately 50 feet in a northerly direction from the paved lot. It was identified on the map as "unpaved parking (gravel) app. 50 vehicles." To accommodate 50 cars, the Church extended this area 75 feet beyond the initially paved parking area.

The record is somewhat unclear and ambiguous with respect to a determination of the precise dimensions of the graveled parking area. The District Court properly found that the lack of any dimensions noted on the map, coupled with the fact that the area was depicted by broken lines, indicates that the more significant designation was the capacity of the additional area to accommodate approximately 50 vehicles.

[3] The District Court also properly found that the paving of the gravel lot does not constitute a development within the purview of the ordinance. Section 14-522 of the Site Plan Ordinance defines development, in part, as "the construction of one (1) or more new structures, building additions or surface parking areas." There is no definition for construction in the ordinance.

552 A.2d 533, City of Portland v. Grace Baptist Church, (Me. 1988)

However, the parties agreed that the term "construction" is appropriately defined as "the act of building or forming." P. Gove, *Webster's Third New Int'l Dictionary* (1971). Here, the Church caused bituminous concrete to be applied to a surface parking area previously formed pursuant to the approved site plan. The trial court properly held that this application was not construction of a new surface parking area requiring approval of the Board.

The entry is:

Judgment affirmed.

WATHEN and CLIFFORD, JJ., concurring.

HORNBY, Justice, dissenting.

Although churches are a permitted use in a Portland single family residential zone, Grace Baptist Church's proposal to build a 10,850 square foot gymnasium building provoked some concern among neighborhood residents. Grace Baptist's final site plan showed landscaping toward the street side and a large wooded area to the rear of the proposed building, and an unpaved gravel parking area to the rear of a paved parking area (in the direction of water flowage, according to the plan contours). At the public hearing the Portland Planning Board's discussion focused primarily on landscaping on the sides of the building to shield it from neighborhood view. When the question of drainage from the paved parking area arose, it was pointed out that the gravel area would absorb some of the runoff and that the land slopes downward toward the rear of the lot. The Board ultimately "voted to approve the final site plan for Grace Baptist Church's new gymnasium building subject to approval of the planting plan by the city arborist." Now, the Court holds, Grace Baptist can cut down the trees in the wooded area (40 medium pine trees), change the topography that affects the runoff and cover the unpaved parking area with bituminous concrete--all without further review by the Planning Board. I dissent.

Under Portland's Site Plan Ordinance, Grace Baptist was responsible for preparing a final site plan for the City's review \*537 before undertaking its original gymnasium development. The ordinance specifies certain things that must be included in the plan, such as topography (indicating both existing and proposed contours), location of water courses, marshes, rock outcroppings and wooded areas, a landscape plan, and the location and dimensions of all fencing and screening. Section 14-526(b)(1). The landowner must also describe any problems of drainage or topography or affirmatively represent that there are none. Section 14-526(b)(2)(f). The Planning Board is then required to approve the final site plan unless it makes specific findings of deficiencies--for example, paved areas that will impose undue burdens on sewer, sanitary and storm drains; onsite landscaping that does not provide adequate protection to neighboring properties; or failure to provide for the soil and drainage problems that the development will produce. Section 14-527(a). Each of these is considered a "deficiency" that the Board must describe in writing, explaining how it could be resolved or that it is incapable of resolution. Section

552 A.2d 533, City of Portland v. Grace Baptist Church, (Me. 1988)

14-527(b).

In Grace Baptist's final site plan there was no deficiency in landscaping or screening to the rear of the gymnasium because there was a large wooded area there between the new building and any neighboring property owners. There was no deficiency in drainage or water runoff because of the existing topography and the ability of the gravel parking area to absorb some of the runoff. Thus the Board could not have rejected the final site plan on either of these grounds. The Court now concludes, however, that the Board was required to make a specific condition of its approval the requirement that Grace Baptist not alter the wooded area nor the topography nor the status of the unpaved parking area. Because the Board did not list these as specific conditions, Grace Baptist can now alter them without Board approval.

It is hard to see how Grace Baptist could have been misled into thinking that the Planning Board would not rely upon Grace Baptist's description of the site in the final plan it submitted for approval. The Court seems to distinguish between an area on the site where development is proposed and the rest of the site. The site plan ordinance makes no such distinction. If, as the Court says, the purpose of the final site plan is to enable the Board "to assess the impact of the proposed development on the surrounding area and, if required to further the purposes of the site plan ordinance, to impose specific conditions to its approval of the proposed development," the developer's description of the characteristics of the rest of the site is critical. If they are satisfactory, they cannot be considered deficiencies in the final site plan that prompt imposition of specific requirements for their resolution. Since it is the landowner's plan that is being approved, not the Board's, and since the landowner has described the site's characteristics in the context of which it seeks approval, there should be no need for the Board to repeat each satisfactory element as a condition of the approval.

The surfacing of the gravel parking lot with bituminous concrete is the most egregious alteration; it should fail even under the Court's analysis. This gravel parking lot was in fact a specified part of what the Court describes as the "proposed developed area" in Grace Baptist's site plan. It was expressly labeled on the final site plan as "Unpaved Parking (Gravel)." When a developer thus states on its final site plan that it is constructing an unpaved, gravel parking lot, I cannot comprehend why the Planning Board's approval must include as an extra condition the requirement that the unpaved parking lot be in fact unpaved. I do concur with the Court's conclusion concerning the dimensions of the parking area.

The decision in this case will not have a monumental effect on new site plan proposals in Portland or elsewhere in Maine because planning boards will in the future presumably make all elements of a site plan express conditions of their approval. The decision does, however, have substantial significance for future development of site plans already approved and implemented. Landowners and planning boards will now dispute what part of the final site plan was the "proposed developed area," the \*538. description of which is binding upon

552 A.2d 533, City of Portland v. Grace Baptist Church, (Me. 1988)

landowners (in the absence of future Board approvals), as distinguished from the rest of the plan which apparently has no significance. Equally important, the Court's parsimonious reading of the Portland ordinance sets an unfortunate tone for our review of such laws as municipalities prepare to grapple with the increasingly difficult issue of Maine land use in the last decade of the 20th century.

(FN1.) The City does not challenge the finding that the clearing and filling activities did not constitute an unauthorized development.

(FN2.) Section 14-522 of the Site Plan Ordinance defines "approval" of a site plan by any board or department "shall include approval with conditions when all the conditions are accepted by the applicant."

(FN3.) We note that the approved site plan did not set forth the location, if any, of "watercourses, marshes or rock outcroppings."

22356

WARRANTY DEED  
Corporate Grantor

BOOK 6792 PAGE 201

**Know all Men by these Presents,**

**That** KASPRZAK, INC.

a Corporation organized and existing under the laws of the State of MAINE  
and having a place of business at NORTH WATERBORO  
in the County of YORK and State of MAINE  
in consideration of one dollar and other valuable considerations

paid by CITY OF PORTLAND, a body politic and corporate, organized and existing under the laws of the State of Maine, with a principal place of business in Portland, County of Cumberland and State of Maine  
whose mailing address is City Hall, 389 Congress Street, Ptd., ME 04101

the receipt whereof it does hereby acknowledge, does hereby give, grant, bargain, sell and convey  
unto the said CITY OF PORTLAND, its successors

~~XXX~~ and assigns forever, the following perpetual rights:

A perpetual easement to enter at any and all times upon a certain lot or parcel of land situated in the City of Portland, County of Cumberland and State of Maine, and being shown as "Drainage easement to the City of Portland" on Plan of Greenfield Acres II prepared for Kasprzak, Inc. by Land Plan Associates to be duly recorded in Cumberland County Registry of Deeds and being more particularly bounded and described on Exhibit A attached hereto and incorporated herein by reference.

Also the right perpetually to enter upon two additional parcels as shown on said Plan of Greenfield Acres II referred to above, which parcels are thirty (30) foot drainage easements located along the common boundaries of Lots 11 and 12 and Lots 13 and 14 as shown on said plan.

And to construct and perpetually maintain through, under and across said "Drainage easement to the City of Portland", hereinafter called detention area and said drainage easements described above, conduits or pipe lines and a detention basin, with all necessary fixtures and appurtenances, for conveying water, and to lay, relay, repair, maintain and remove said storm-water pipe or pipes upon or under said strips, with all necessary fixtures and appurtenances, together with the right at all times to make connections with said conduits or pipe lines to land adjoining said strips and detention basin by means of pipes or other services; to trim, cut down and remove trees, bushes and other vegetation of all kinds, to remove debris and deposits of any kind and to alter and regrade the contours of said detention areas and drainage easements to such extent as in the sole judgment of the Grantee is necessary or appropriate for any of the above purposes, and to enter upon said strips and detention basin at any and all times for any of the foregoing purposes, reserving to the Grantor, its heirs and assigns the use and enjoyment of said strips and detention basin for such purposes as only will in no way interfere temporarily or otherwise with the perpetual use thereof by the Grantee, its successors and assigns

for the purposes above mentioned, provided that no building or any kind of permanent structure, including, but not limited to walls and fences, shall be erected on said strip or detention basin by the Grantor, its successors or assigns and that no hedges, bushes or trees shall be planted in said strip or detention basin by the Grantor or its successors and assigns, and that the Grantor, its successors and assigns shall not remove earth from said strips or detention basin or place fill or other materials within said strips or detention basin without the written permission of the grantee, its successors and assigns.



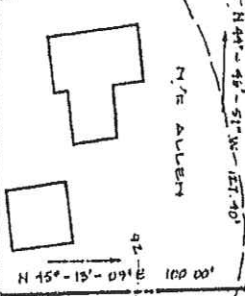
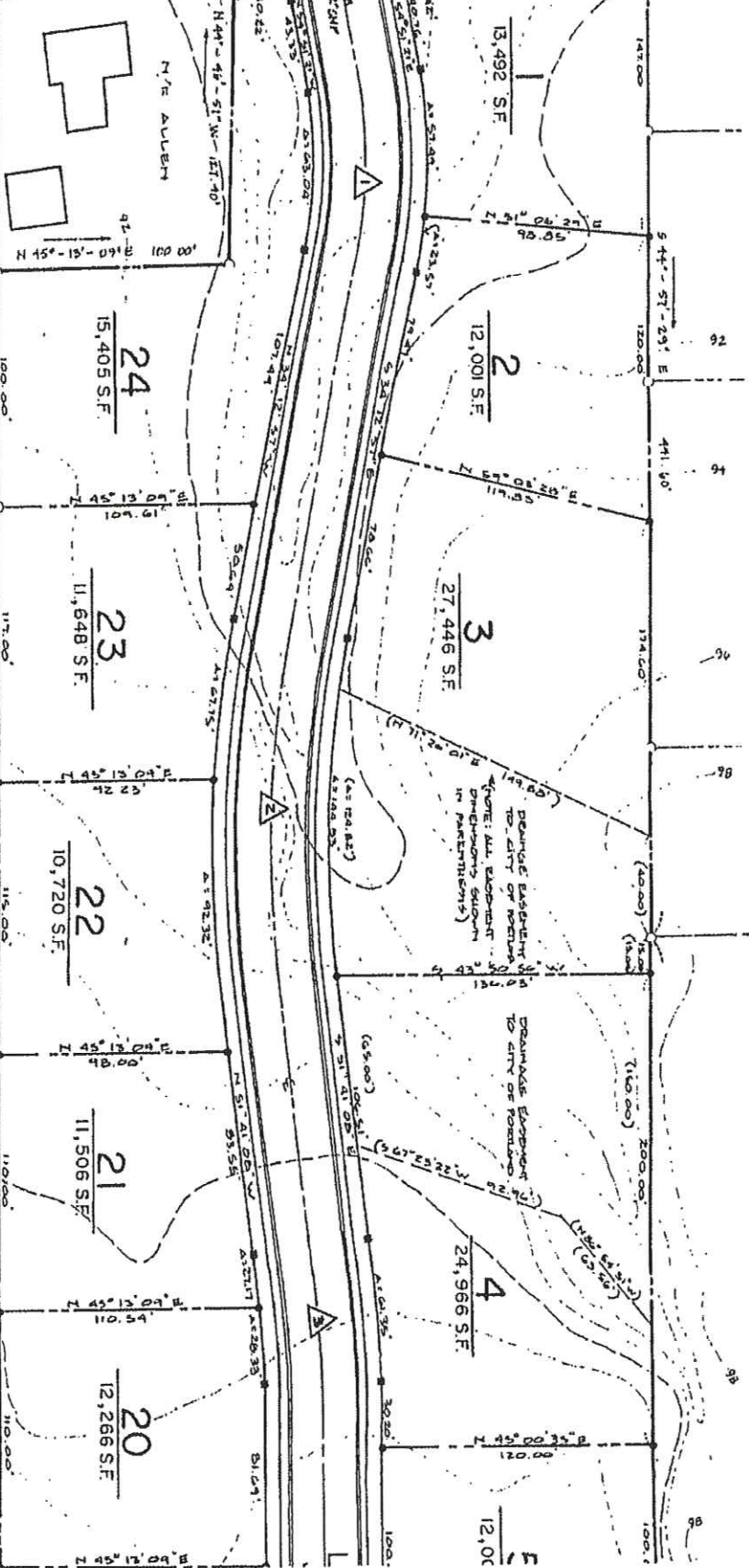
## Exhibit A

A certain lot or parcel of land situated in the City of Portland, County of Cumberland and State of Maine and being more particularly bounded and described as follows:

BEGINNING at an iron located four hundred one and six tenths (401.6) feet and South  $44^{\circ} 57' 29''$  East from an iron located on the easterly side line of Washington Avenue at the intersection of land of this Grantee and other land of this Grantee known as the Fieldstone Subdivision; thence South  $71^{\circ} 26' 01''$  West one hundred forty-nine and eighty-eight hundredths (149.88) feet to an iron on the northerly side line of Lester Drive as extended and shown on Plan of Greenfield Acres II prepared for Kasprzak, Inc. by Land Plan Associates to be duly recorded in the Cumberland County Registry of Deeds; thence easterly by the northerly side line of said Lester Drive extended one hundred eighty-nine and eighty-two hundredths (189.82) feet to an iron; thence North  $67^{\circ} 23' 22''$  East ninety-two and ninety-six hundredths (92.96) feet to an iron; thence South  $86^{\circ} 54' 51''$  East sixty-three and fifty-six hundredths (63.56) feet to an iron at land now or formerly of Dorler; thence North  $44^{\circ} 59' 25''$  West by land now or formerly of Dorler one hundred sixty-five (165) feet to an iron; thence continuing North  $44^{\circ} 57' 29''$  West forty (40) feet by land of said Fieldstone Subdivision to the point of beginning.

N. F. NAPPIER, INC.

N. F. DICKER



24  
15,405 S.F.

23  
11,648 S.F.

22  
10,720 S.F.

21  
11,506 S.F.

20  
12,266 S.F.

13,492 S.F.

2  
12,001 S.F.

3  
27,446 S.F.

4  
24,966 S.F.

12,100

REMARKS: EXCEPT WHERE SHOWN OTHERWISE, ALL DIMENSIONS ARE IN FEET AND INCHES.

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REMARKS: EXCEPT WHERE SHOWN OTHERWISE, ALL DIMENSIONS ARE IN FEET AND INCHES.

To have and to hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said CITY OF PORTLAND

its/ ~~XXX~~ successors and assigns, to it and their use and behoof forever.

And the said Grantor Corporation does hereby warrant with the said Grantee its successors ~~XXX~~ and assigns, that it is lawfully seized in fee of the premises, that they are free of all encumbrances except as aforesaid;

that it has good right to sell and convey the same to the said Grantee to hold as aforesaid; and that it and its successors, shall and will warrant and defend the same to the said Grantee, its/ ~~XXX~~ successors and assigns forever, against the lawful claims and demands of all persons, except as aforesaid.

In Witness Whereof, the said KASPRZAK, INC. has caused this instrument to be sealed with its corporate seal and signed in its corporate name by Stephen M. Kasprzak, its President thereunto duly authorized, this 20 day of the month of February A.D. 19 85.

Signed, Sealed and Delivered in presence of

KASPRZAK, INC.

(Corporate Name)

*[Handwritten signature]*

By *[Handwritten signature]*  
Stephen M. Kasprzak  
its President

State of Maine, County of York ss, February 20, 19 85

Then personally appeared the above named Stephen M. Kasprzak of said Grantor Corporation as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of said Corporation.

Before me,

*[Handwritten signature]*  
KENNETH M. COLE  
Notary Public  
Attorney at Law

RECORDED  
1985 JUN 17 11:10:01  
RECORDED - DEPT. OF REVENUE

*[Handwritten signature]*  
James J. Walsh

Attachment 14

(2 pages)

**From:** "Thomas N. Emery, RLA" <temery@landuseinc.net>  
**To:** "Jean Fraser" <JF@portlandmaine.gov>  
**Date:** 10/16/2006 2:34:00 PM  
**Subject:** Stream determination

Jean,

Lynwood Myshrall, PE has just heard from Jeff Simmons of Woodlot Alternatives. He has spoken with Linda Kokemuller at the DEP about his observations and she has made a determination that the drainage way is NOT a stream. Jeff will follow up with written confirmation for the record.

With this determination, no permit by rule filing will be required. We will resubmit the NRPA Tier 1 Wetland Permit application and the storm water application - both of which were delayed until the stream classification determination was resolved.

The only plan revision will be the removal of the 75 ft and 25 ft jurisdictional line which no longer apply.

Regards,

Tom Emery

Thomas N. Emery, RLA  
Land Use Consultants, Inc  
966 Riverside Street  
Portland, ME 04103  
v 207.878.3313  
f 207.878.0201



Looking west on Summit Street- from opposite the drive into Grace Baptist Church



Looking east on Summit Street- from opposite 514 Summit Street

Existing detention area (swale) on north side of Lester Drive looking into the proposal site

