

Information Regarding
Water - Sewer & Drainage
in Shorts Sands Area

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out of Context. You can
find & READ all full Reports
on the Town of York
WEBSITE

6. REMEDIAL ACTION PROGRAMS

6.1 GOALS OF REMEDIAL ACTIONS

The primary emphasis of any remedial action program must be placed on mitigating the serious flooding problems that occur in the Long Sands and Short Sands beach areas. This flooding causes major damage to homes and businesses and creates serious disruptions to the Town's economy. The secondary thrust of the mitigation programs is to contain upland flooding to low land and wetland areas in a manner that will not cause damage to adjacent property, and will not damage public infrastructure. Critical upland culverts and outfalls that are currently creating localized flooding problems must also be addressed.

The solution to these problems will not be easy or fully accomplished in a short time frame. A large amount of public investment will be required together with modification in public policy. That may not be popular with all segments of the population.

The goal of the remedial action programs is to accomplish the desired level of flood control as cost effectively as possible, in a manner that will be acceptable to the citizens of the Town, and can be permitted under state and federal regulations.

6.2 NON-STRUCTURAL ACTIONS

6.2.1 Discussion of Non-structural Elements

An effective storm water management plan will have two components, i.e. a series of non-structural actions which can be taken to lessen the runoff that must be handled, and a structural component to actually transport the incoming flow to a safe disposal point.

As discussed in the prior section on hydrology, the existence of substantial areas of wetlands in the watersheds tributary to the beach areas are extremely valuable in reducing peak flows that arrive at the beaches. Without these wetlands the peak flows would be much larger than those predicted. In the past it was common practice to fill and encroach on wetlands for development. This has happened in wetlands adjacent to the beach dunes. Fortunately, encroachment into wetlands away from the beaches has been generally limited. In the past 25 years the importance of these wetlands has been recognized and federal, state and local statutes have regulated the use of wetlands. The Town of York has initiated a program of establishing conservation easements over critical wetlands.

Ocean House

The hydrologic investigations made have identified wetland areas that currently serve as stormwater detention areas. These are shown in light blue on Plan 2 of the accompanying plan set. Also shown on the plan are wetland areas that are not now serving as significant detention areas, but do serve to dampen peak runoff and could possibly be used for added detention.

3. EXISTING CONDITIONS

The area of interest defined for this study is that portion of Town east of the Maine Turnpike (I-95) to the ocean, between the York River and the Cape Neddick River. This area is shown on a USGS plan following this page (Fig. 1). The topography and geology is typical of the glacial coastal plain of Maine. The ridges and upland areas are glacial till overlying shallow bedrock. The area is cut by numerous small streams in the valley areas. These lowland areas have extensive wetlands along the streams and in depression in the bedrock.

The retreat of the glacier left extensive sand dune deposits and sand beaches along the coast in what is known as the Long Sands and Short Sands Beaches. These beach dunes serve as a barrier to upland runoff trying to reach the ocean. Many years ago the barrier dunes were developed to carry roadways (U.S. Route 1-A), to support extensive development abutting the highway, and in low lying areas behind the dunes.

The general topography and geologic conditions have created very complex hydrologic systems. Fortunately in recent years, advances in computer technology have made hydrologic modeling of such watersheds possible. Such modeling and analysis are vital to the development of a realistic remedial action program. However, it must be noted that hydraulic modeling under such complex physical conditions is not a precise science and a good deal of professional judgment must be applied when utilizing the output data.

The major stormwater problems that exist today include extensive flooding of developed areas lying behind the roadways built on the old dune system. Culverts have been installed under the highway/dune system to allow upland flow to escape to the ocean. As flows have increased over the years, these culverts have become too small to be effective. Most importantly, all of these culverts are subject to tidal influence, especially during storm events. As a result of increased upland flow approaching the beaches and reverse tidal flow through the culverts, substantial areas behind the dunes at both Long Sands and Short Sands are subject to significant flooding. The photos in the prior section illustrate typical conditions.

The second significant stormwater problem is the backup and flooding along the upland streams. The flooding is created by natural watercourses being restricted in carrying capacity due to extensive vegetation and encroachment of development. In many instances the culvert sizes on roadways crossing the streams are undersized. Much of the stream water backup and flooding occurs in natural wetland areas. However, in some areas, where development has encroached too closely to wetlands, residential flooding occurs. The undersized culverts are also a benefit as they do detain water in the wetland areas, thus reducing peak runoff rates. *OCEAN HOUSE FILLED SOME OF THE WETLAND BEHIND BALL FIELD FOR PARKING*

In the more urbanized upland areas of the Town, existing drainage is carried in roadway gutters and limited formal piped drainage systems. These gutter/drain systems generally discharge to the nearest watercourse and flow overland to the ocean or rivers. While the existing urban area drainage systems do not provide efficient overall stormwater removal, they generally create only minor inconvenience and maintenance problems (except as noted below) as opposed

program must consider the tandem influences of excessive upland flow and tidal conditions at the beaches. Volume 3 of this report presents a summary of hydrologic study printouts.

5.3 FUTURE CONDITION ANALYSIS

The intensity of runoff for any watershed will depend on its state of development. As development takes place and land use patterns are altered, the runoff rates will increase.

Design of remedial measures must try to anticipate the development and changes in land use which may occur over the design life of the facility. Even though projection of growth beyond a 10 year period is of limited value, some judgment decisions must be made to assure reasonable allowance for future conditions in any design process.

Edwards and Kelcey staff met with the planning director of York to discuss growth potential in the critical watersheds. It was noted that extensive wetland areas exist throughout the watersheds. Development must not encroach into the wetlands. The upland areas throughout the watersheds are relatively small and somewhat isolated from each other. The planning director felt that these conditions are not favorable to large scale developments, and thus, most development would be of the scattered residential type. Should a large residential or commercial development be proposed, it would have to have its own storm water management plan which would control offsite runoff to preconstruction conditions. This requirement for private development will be a key factor in preventing conditions from deteriorating further. These individual stormwater management programs must be coordinated with this report, as some development in the lower parts of the watersheds may not require detention. In these areas, it may be desirable to pass flow to the ocean as quickly as possible.

Based on these discussions it would appear that future development in the critical watersheds tributary to the beaches will be somewhat limited in relationship to the size of the watersheds, and the major development would require its own stormwater management system. Conservative design based on existing condition flow projections for the area would appear to be appropriate. Recommendations for action are included in later sections.

9. ENVIRONMENTAL PERMITTING

The overall program has been reviewed to estimate the potential permitting requirement that will have to be met prior to any construction. One meeting has been held with the staff of the State of Maine Department of Environmental Protection.

Initial discussion with the DEP staff highlighted several factors.

1. The areas along Long Sands beach and Short Sands beach have been designated as "dune areas" by the Maine Geological Survey. Agency maps follow this page.
2. The DEP generally does not approve of clearing or otherwise enhancing any watercourse to increase its flow carrying capacity. Essentially it must be left in its natural state.
3. The DEP generally does not encourage creation of detention basins in wetland areas.
4. The DEP does not permit seawalls or other construction along beach or dune areas.
5. The DEP encourages local government to obtain some type of public control over wetlands to assure their long term protection.

During discussion with the DEP staff, it was noted that the parking area on the dune system at Short Sands was at elevation of 11 to 12 feet, and due to the orientation to the northeast, it was subject to significant wave action that causes seawater to wash over the lot and into the streets. It was stated that the installation of seawalls or other barriers in such situations would not be permitted. It was noted that if such wash-over continued to be a major problem, the state might consider allowing the Town to raise the entire parking lot a few feet by placement of added sand. However, unless some form of protection was placed on the face of the newly applied sand, its stability would be in question. It might be possible to place some type of temporary barrier system in the parking lot over the critical winter months. This should be explored further by the Town.

The fact that all areas adjacent to the beaches are designated as dune (even though much of it is already built upon) will require permitting of any outfall system that will cross the designated dunes. As the outfalls will extend seawalls below mean tide level, it will probably be necessary to secure permits from the Army Corp of Engineers. Installation of the trunk drains and some of the outfall structures will encroach into areas formally designated as wetlands. These facilities will require wetland permits from the state, although the disturbed areas will be minimal. While permitting will be required in several areas, there are really no options that would avoid all impacts. It would appear

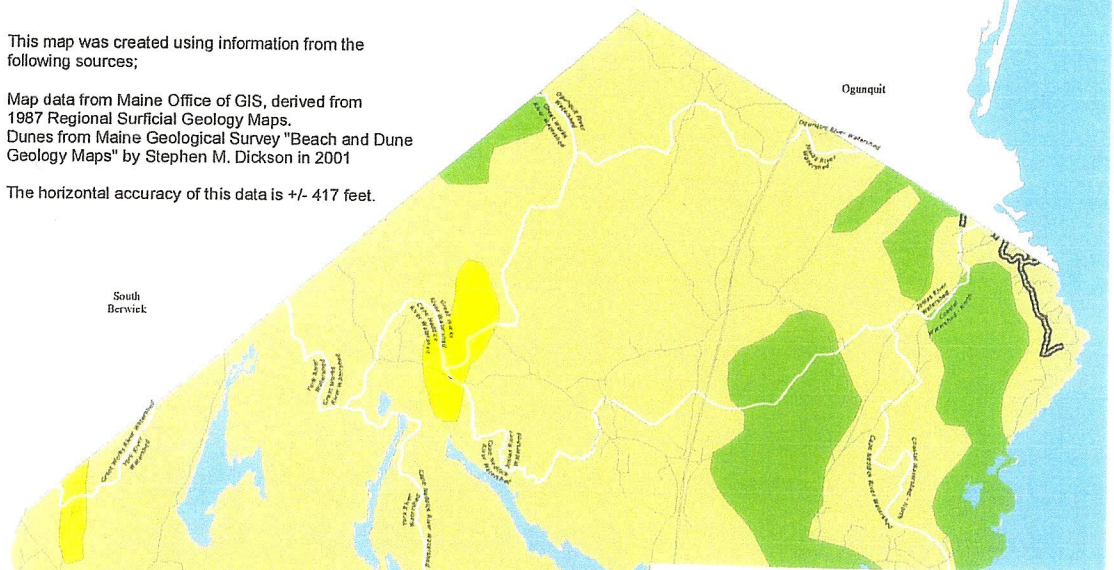
Surficial Geology

York Comprehensive Plan
Inventory and Analysis
Natural Resources Chapter
February 10, 2006

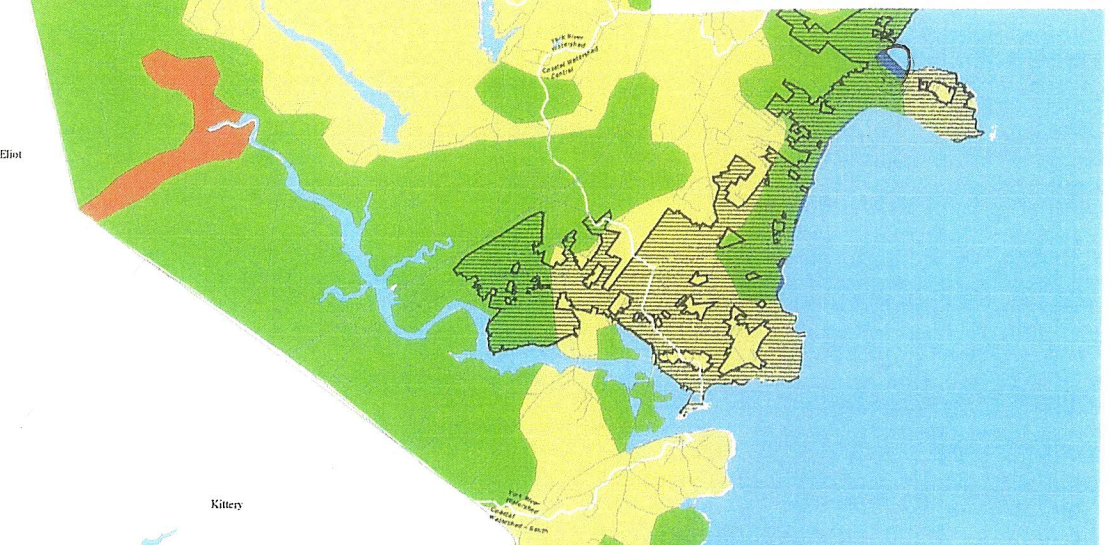
This map was created using information from the following sources;

Map data from Maine Office of GIS, derived from 1987 Regional Surficial Geology Maps.
Dunes from Maine Geological Survey "Beach and Dune Geology Maps" by Stephen M. Dickson in 2001

The horizontal accuracy of this data is +/- 417 feet.



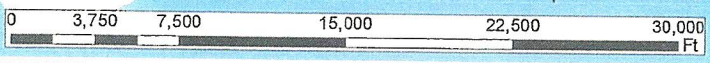
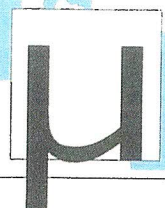
We are BUILT on DUNE DEPOSIT



Legend

- Surface Water
- Major Watersheds
- Surficial Geology**
- By Type**
- DUNE DEPOSIT
- SWAMP/MARSH/BOG DEPOSITS
- GLACIAL MARINE DEPOSITS
- ICE CONTACT DEPOSITS
- TILL
- Sewer Service Areas

	Cape Neddick River Watershed	N. Coastal Watershed	G. Coastal Watershed	S. Coastal Watershed	Great Works River Watershed	Jones River Watershed	Ogunquit River Watershed	York River Watershed
TILL	73%	31%	53%	53%	61%	63%	100%	62%
GLACIAL MARINE DEPOSITS	23%	42%	47%	33%	33%	33%	0%	34%
DUNE DEPOSIT	0%	0%	1%	0%	0%	1%	0%	4%
ICE CONTACT DEPOSITS	0%	0%	0%	0%	0%	0%	0%	0%
SWAMP/MARSH/BOG DEPOSITS	0%	0%	0%	0%	0%	0%	0%	0%
TOTALS	100%	100%	100%	100%	100%	100%	100%	100%



1 Inch equals 1/2 mile

0

6

will affect storm water runoff are also illustrated. The wetlands highlighted in blue are those in which existing culverts create de facto detention areas, or supplemental detention is proposed.

The current study is based on a USGS datum of mean tide equals elevation 0. Normal low tide is about elevation -4.6 while normal high tide is about elevation +4.6 feet. A naturally occurring "spring" tide will be about 1.9 feet above normal high tide, that is about elevation 6.5 feet.

Surges occur at the shore during storm events when high winds tend to drive the water shoreward. Along the Maine coast this is typically an East or Northeast wind. These surges will vary with the intensity of the storm, its duration and wind direction. Hurricane surges can easily exceed 10 feet. For the purpose of this study Edwards and Kelcey adopted a 4-foot storm surge. This does not consider wave action at the shore. If the storm surge coincides with a spring tide, a highwater elevation of about 10.5 to 11 feet can be anticipated.

It is noted that many upstream culverts at road crossings are not sized to carry the projected flows without significant surcharge. These culverts create de facto detention areas along the watercourses. This de facto detention significantly reduces the peak downstream flow rates. If these culverts were upgraded to carry higher flow and other control means were not installed, the flow arriving at the beach will be increased significantly. As discussed in later sections, retaining the wetlands and enhancing their detention capacity is vital to the Town's overall stormwater management program. The flow projection assumes continued use of, and enhancement where possible, of the detention inherent in the existing wetland areas.

In some locations the culvert surcharge may not create a problem as the flooded area may be a wetland. However, in other situations the culvert surcharging may be detrimental. The key surcharging culverts should be evaluated to determine if upsizing is beneficial to the overall program, or if the restrictions on flow they represent should remain in place. Culverts that create a backwater that will top this road are identified for upgrading.

As to be expected, the most severe drainage problems occur at Long Sands and Short Sands where serious, damaging flooding occurs during storm events above a certain intensity. In these areas the hydraulic analyses reveal the problem to have two root causes. First, the runoff from the upland areas for storm events of 25-year frequency cannot pass through the dune system to the ocean. The culvert sizes are simply too small. Secondly, the tidal elevation at the time of peak runoff has a significant impact on the carrying capacity of the discharge culverts.

Tidal conditions have a great impact on flooding potential behind the dunes at Long Sands and Short Sands. If there were little upland flow reaching the beaches, the ocean would reverse flow through the culverts and could bring water elevation behind the dunes to 10 to 11 feet. Significant areas behind the dunes, including developed areas, are below this elevation. If a significant upland flow arrives at the beaches concurrently with a higher than normal tide, the problem is exacerbated as the upland flow cannot pass to the ocean without creating an additional surcharge of several feet. Elevation 12 could be reached under extreme conditions. These conditions can create very severe flooding. Thus, the design of any remedial action

FLOODPLAIN MANAGEMENT ORDINANCE
Amended 11/8/2005

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ARTICLE I - PURPOSE AND ESTABLISHMENT

2. A Flood Hazard Development Permit for Floodproofing of Non-Residential Structures that are new construction or substantially improved non-residential structures that are not being elevated but that meet the floodproofing standards of Article VI.G.1.a.,b., and c. The application for this permit shall include a Floodproofing Certificate signed by a registered professional engineer or architect; or,
3. A Flood Hazard Development Permit for Minor Development for all development that is not new construction or a substantial improvement, such as repairs, maintenance, renovations, or additions, whose value is less than 50% of the market value of the structure. Minor development also includes, but is not limited to: accessory structures as provided for in Article VI.J., mining, dredging, filling, grading, paving, excavation, drilling operations, storage of equipment or materials, deposition or extraction of materials, public or private sewage disposal systems or water supply facilities that do not involve structures; and non-structural projects such as bridges, dams, towers, fencing, pipelines, wharves, and piers.

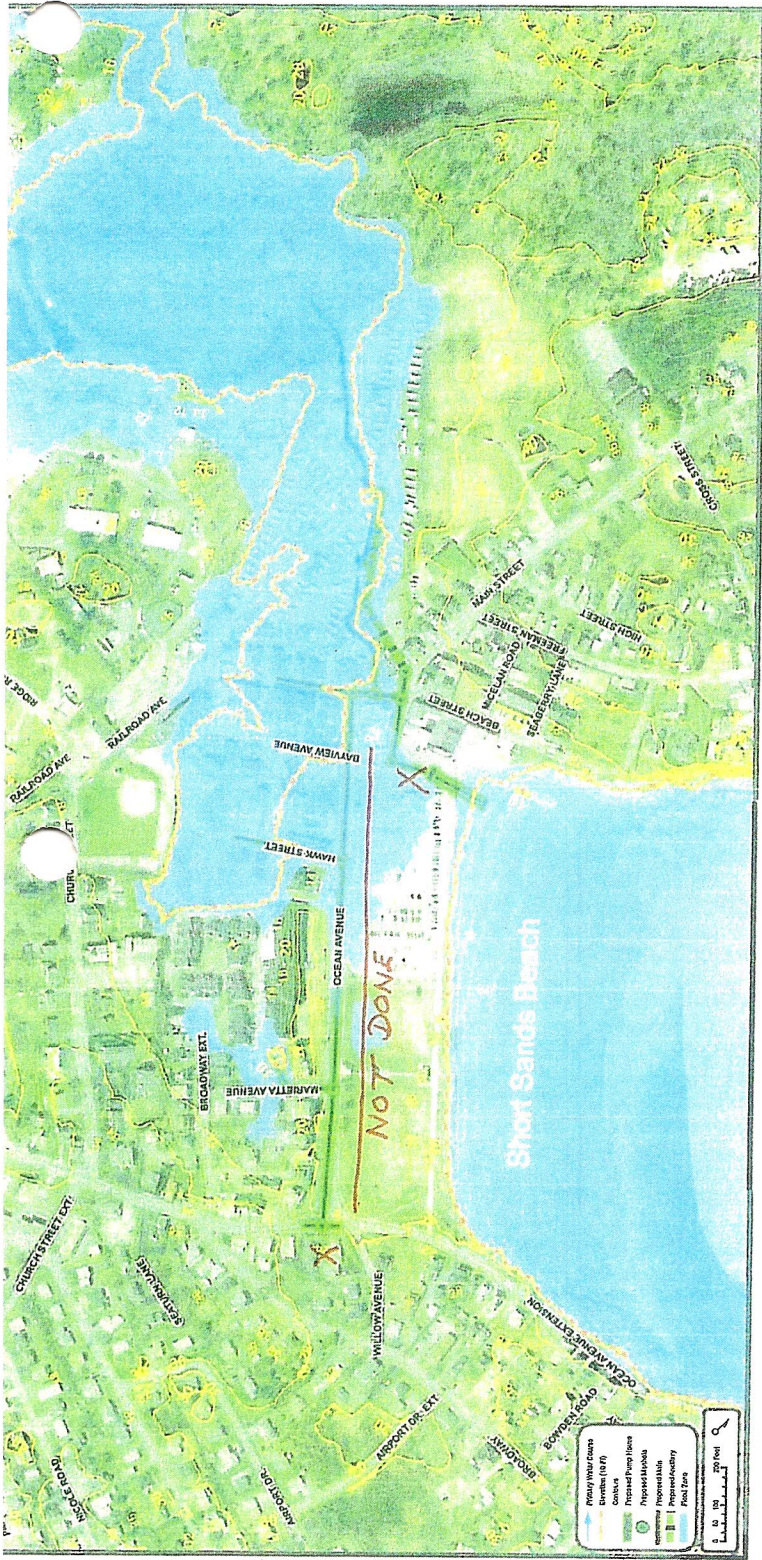
For development that requires review and approval as a Conditional Use, as provided for in this Ordinance, the Flood Hazard Development Permit Application shall be acted upon by the Planning Board as required in Article VII.

- G. Maintain, as a permanent record, copies of all Flood Hazard Development Permit Applications, corresponding Permits issued, and data relevant thereto, including reports of the Board of Appeals on variances granted under the provisions of Article X of this Ordinance, and copies of Elevation Certificates, Floodproofing Certificates, Certificates of Compliance and certifications of design standards required under the provisions of Articles III, VI, and VIII of this Ordinance.

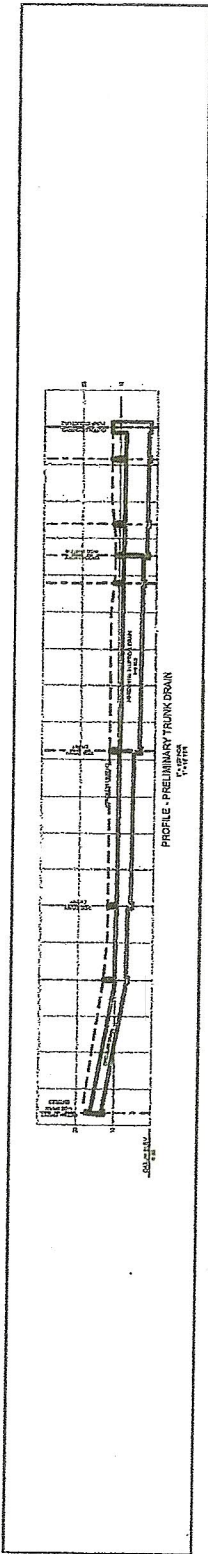
ARTICLE VI - DEVELOPMENT STANDARDS

All developments in areas of special flood hazard shall meet the following applicable standards:

- A. All Development - All development shall:
 1. be designed or modified and adequately anchored to prevent flotation (excluding piers and docks), collapse or lateral movement of the development resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 2. use construction materials that are resistant to flood damage;
 3. use construction methods and practices that will minimize flood damage; and,
 4. use electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during flooding conditions.
- B. Water Supply - All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems.
- C. Sanitary Sewage Systems - All new and replacement sanitary sewage systems shall be designed and located to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.



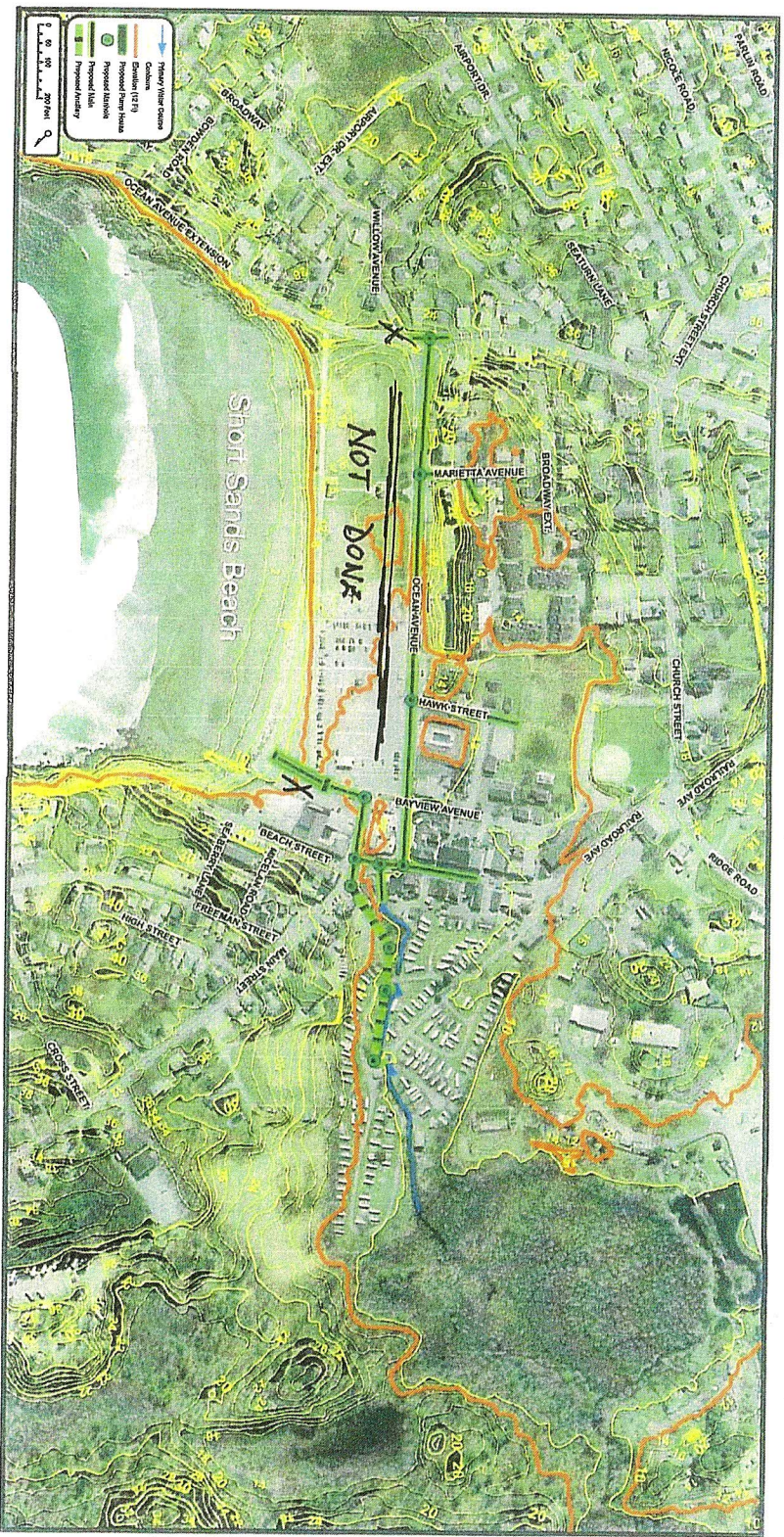
Map and Profile of Short Sands Beach



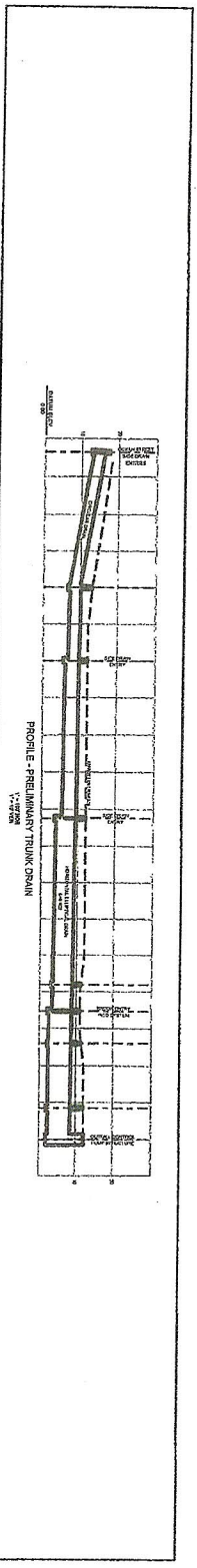
<p>2281 Lakeside Drive, N.E. Portland, Maine 04106 www.edwards-kelcey.com</p> <p>ENGINEERS ARCHITECTS PLANNERS CONSULTANTS</p>	<p>DRAWN BY: AME</p> <p>CHECKED BY: SUB</p> <p>DATE: 07/07/06</p> <p>PROJECT: 06057918</p>	<p>NOTE:</p> <ol style="list-style-type: none"> 1. TRUNK DRAIN LOCATIONS AND DEPTHS ONLY. FINAL ALIGNMENT TO BE ESTABLISHED IN FINAL DESIGN. 2. PROFILES ARE ILLUSTRATIVE ONLY AND SUBJECT TO REVISION IN FINAL DESIGN. 3. ELEVATIONS ARE IN ACCORDANCE WITH THE USGS USING THE NATIONAL GEODETIC VERTICAL DATUM OF 1988. 4. PHOTOGRAPHY COMPILED FROM AERIAL PHOTOGRAMMETRY BY BRASSFIELD CONSULTANTS AND IS PROVIDED IN THIS MANUAL FOR INFORMATION ONLY. LOCAL STREET DRAINAGE AND UTILITIES TO BE RETAILED BASED ON FIELD AND RECORDS AVAILABLE. 	<p>Plan 10</p>
	<p>York Watershed Management</p> <p>Town of York, Maine</p> <p>100 York Street, York, ME 04390</p>	<p>Design Source: Town of York, Business Consultants, Inc., Edward and Kelley.</p>	

The X's are the areas completed from mid October 2010 to April 2011. The entire portion from X to X running along Ocean Avenue IS NOT DONE and will not be done until sometime in 2012.

ALL of the Blue Area above Short Sands Beach is FLOOD ZONE.



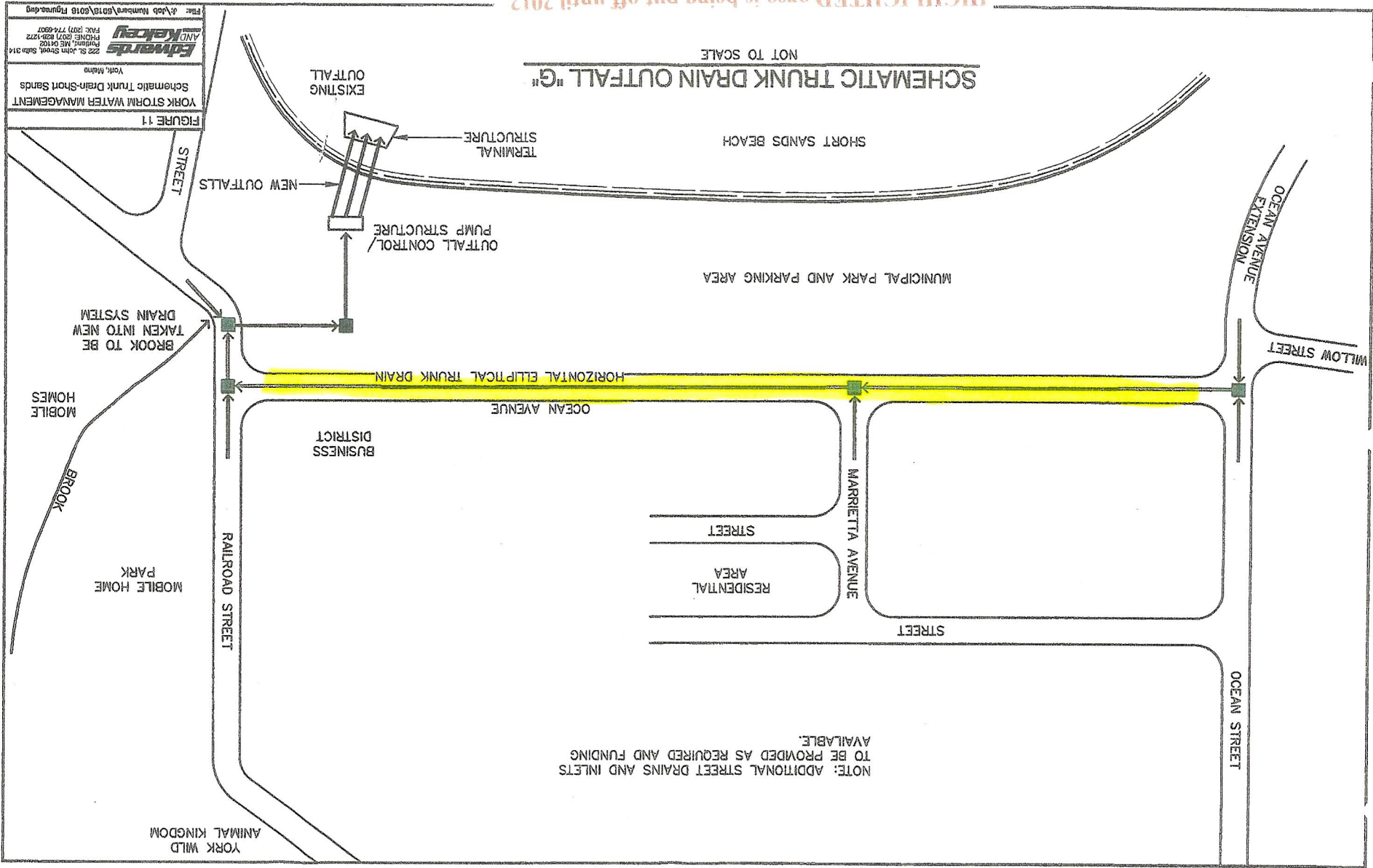
Map and Profile of Short Sands Beach



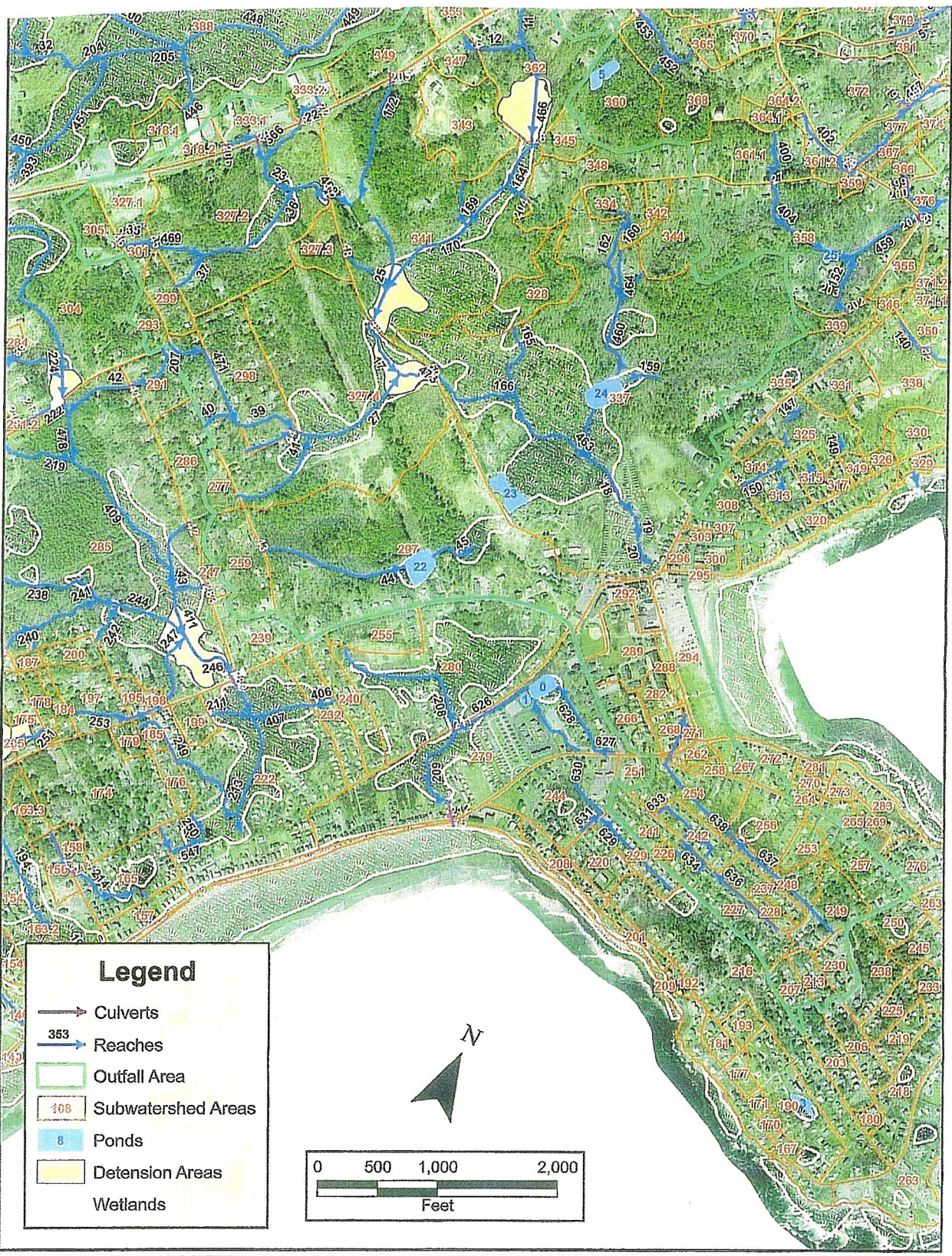
Edwards and Kelcey ENGINEERS ARCHITECTS PLANNERS CONSULTANTS 225 St. John Street, Suite 311 Portland, Maine 04102 Telephone: (603) 774-4477 www.edwardsandkelcey.com		DRAWN BY: ANL CHECKED BY: SJB DATE: 07/2016 PROJECT: 06257018		York Watershed Management Town of York, Maine 747 Highland Ave, York, ME 04330 Data Source: Town of York, Brunswick Consultants, Inc., Served as of 6/2015		Plan 6
NOTES: 1. TRUNK DRAIN LAYOUTS ARE TENTATIVE ONLY. FINAL ALIGNMENT TO BE ESTABLISHED IN FINAL DESIGN. 2. PROFILES ARE TENTATIVE ONLY AND SUBJECT TO REVISIONS IN FINAL DESIGN. 3. ELEVATIONS ARE IN ACCORDANCE WITH THE GDS USING THE NATIONAL GEODETIC VERTICAL DATUM OF 1988. 4. PROFILES ARE COMPRISED FROM VERTICAL PHOTOGRAMMETRY BY REGISTERED CONSULTANTS AND IS NOT TO BE USED FOR CONSTRUCTION. 5. LOCAL STREET DRAINAGE AND UTILITIES TO BE IDENTIFIED BASED ON FIELD AND TOWNING AVAILABLE.						

All of the Red lines are elevations of 10 to 12 feet. The Black line indicates not to be done until next year (2012). X = completed.

HIGHLIGHTED area is being put off until 2012.



WE ARE "OUTFALL G"..... The blue lines indicate ground water runoff and storm water runoff that starts from the Nubble and flows downward to the Ocean at Short Sands Beach. NOTE: The blue arrow indicates where the flow stops while waiting to reach the ocean. It is directly under our property. SUB WATER SHED # 268 + 271



DRAWN BY: CJK DATE: MAY 31, 2006
 CHECKED BY: SJB PROJECT: 060057018

**Edwards
AND Kelcey**
 ENGINEERS
 ARCHITECTS
 PLANNERS
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222 St. John Street Suite 314
 Portland, Maine 04102
 Tel. (207) 828-1272 Fax (207) 774-6907
 www.ekcorp.com

OUTFALL "G"

YORK WATERSHED MANAGEMENT
 TOWN OF YORK, MAINE

Data Sources:
 Town of York
 Maine Office of GIS

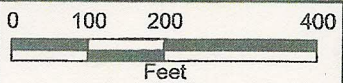
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13



Legend

- Culverts Surveyed
- Reaches
- Outfall Area
- Subwatershed Areas
- Ponds
- Detention Areas
- Wetlands
- Culverts Existing
- Catchbasins
- Stormdrains
- Outfall_Delineation



DRAWN BY: CJK DATE: MAY 31, 2006
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**PROBLEM AREA #5
 Outfall G**

**YORK WATERSHED MANAGEMENT
 TOWN OF YORK, MAINE**

Data Sources:
 Town of York
 Maine Office of GIS

Figure 2

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14



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The Source
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Extra work to be completed in York Beach

Photo 1 of 1 | Zoom Photo +



Construction continues in York Beach despite a winter filled with snow storms. Deb Cram photo

Deb Cram/dcram@seacoastonline.co

By Susan Morse
smorse@seacoastonline.com
March 16, 2011 2:00 AM

YORK — Shaw Brothers Construction Inc., which is finishing up a Federal Emergency Management Agency drainage project in Short Sands Beach, will stay in the area to do some work for the town, according to a decision by the Board of Selectmen on Monday, March 14.

Shaw Brothers Construction is completing the FEMA work ahead of schedule, Department of Public Works Director Dean Lessard told selectmen. The company is available to install pipes on Main Street in the beach as part of the town's planned \$800,000 Short Sands Drainage Enhancement project Lessard said.

The project was approved by voters in May 2009.

As the construction company already has the equipment in place from its FEMA work on Beach Street and Main Street, it can now do the Main Street portion of town's work for \$180,440, said Lessard. The money will come from the \$800,000 approved for the entire beach project.

Lessard recommended awarding the work to Shaw Brothers rather than going through a bid process.

"If we were to go out to bid, there's no guarantee the price would be cheaper and it would be almost impossible to get it done this spring," Lessard told selectmen. "It was painful enough for businesses this winter. To affect businesses again doesn't seem worth it to me. Shaw Brothers expects it will take a week or two weeks to have it all done. It makes sense, they're right there, the road's torn up, get it done. Next winter we won't be in front of Atlantic House."

Construction took place in front of the Atlantic House, Blue Sky restaurant and Union Bluff on Beach Street.

"It's important to thank businesses for their patience," said Chairman Tracy Jackson McCarty.

"I'm a strong proponent for going out to bid," said Selectman Mary Andrews, but she added that in going with Shaw Brothers now, "I do believe we will save the town time and money."

Town policy is to go out to bid.

Selectmen unanimously awarded the \$180,440 bid to Shaw Brothers for construction of the Main Street section of the drainage project.

The rest of the work planned for Ocean Avenue, Hawk Street, Franklin Street and other beach streets in Short Sands will be done next year and not this winter and spring, so as to get construction equipment off the beach by May 30 at the start of the busy summer season, according to Lessard.

In doing the work the DPW is coordinating plans with the York Sewer District, which is looking at upgrading sewer lines on Ocean Avenue, he said.

The \$1.5 million FEMA project to get floodwaters out of York Beach began after Columbus Day weekend. The FEMA grant paid for 75 percent, or \$1.19 million of the project, to install a new, larger capacity pipe on Railroad Avenue and a new beach outfall culvert, called a penstock. Voters approved \$450,000 for the project with some of the money spent on preliminary engineering work.

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Baseball: Taylor strikes out 16 Portsmouth wins 66th straight game - 4/21/2011

\$72K OK'D FOR UNDERGROUND UTILITIES AT YORK BEACH

Selectmen approve curbs and sidewalks

BY SUSAN MORSE
smorse@seacoastonline.com

YORK — While Beach Street remains under construction and before it is paved, it will get the infrastructure for underground utilities and streetlight foundations.

In addition to the underground electric, cable and phone lines, Beach Street improvements approved by the Board of Selectmen Monday include installing granite curbs and widening sidewalks. The work is expected to be done prior the start of the busy summer tourist season.

Based on a recommendation by Dean Lessard, Department of Public Works director, selectmen agreed to spend \$72,426 to hire Shaw Brothers Inc. for the work.

Shaw Brothers is already working on site for the beach drainage project in Short Sands, according to Lessard. Hiring the company rather than going out to competitive bid saves money and time, he said.

Funds are coming from \$100,000 approved by voters in May 2009 for York Beach infrastructure improvements.

More money will be needed to complete sidewalk, curb and streetlight improvements on other streets in Short Sands Beach, said Lessard, but it's important to do the underground work before Beach Street is paved. Town Manager Rob Yandow

is expected to give estimates for the total cost of infrastructure improvements beach-wide at a future meeting.

Businesses on Beach Street — the Atlantic House, Blue Sky restaurant and the Union Bluff hotel and restaurant — have been affected this winter by the street being torn up for drainage construction.

"Year-round businesses took a big hit in this economy this year," said Chairman Tracy Jackson McCarty. Jackson McCarty said she was in favor of allowing Shaw Brothers to continue working in the area, as long as they were wrapped up by spring when the weather is warmer.

Selectmen voted 4-0 in favor of the work.

"The time to install improvements is right now."

Dean Lessard
Department of Public Works
director

Shaw Brothers is completing the \$1.5 million Federal Emergency Management Agency drainage project in Short Sands Beach, installing larger capacity pipes to drain water out

of the square into the ocean. The FEMA pipes run from Burnette's Camp Ground near York's Wild Kingdom, behind businesses on Railroad Avenue to Beach Street and the ocean.

"The last piece of pipe is being installed right now," said Lessard Monday night. "Hopefully it will be done by the end of the week."

Next week, workers are ripping out the old penstock, an outfall culvert on the beach, replacing it with a new one and restoring the beach to preexisting conditions, said Lessard.

"With Shaw brothers doing the construction," Lessard said, "the time to install improvements is right now."

Continuing Drainage Issues
With No Real Answers

SmartZone Communications Center

brenda.henk@comcast.net

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Fw: OUR AGENT SUMMARY INS POLICY

From : Pete Henk <pete@brownbronto.com>
Subject : Fw: OUR AGENT SUMMARY INS POLICY
To : Brenda Lee Henk <brenda.henk@comcast.net>

Mon Oct 18 2010 4:56:48 PM

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

From: Wayne Clapper
To: 'Pete Henk'
Cc: David & Jeanne Blackstone
Sent: Sunday, October 17, 2010 10:47 PM
Subject: RE: OUR AGENT SUMMARY INS POLICY

Hi Pete,

I spoke with Dave and Jeanne today and we think it is a good idea to notify the York city engineer to look at our retaining wall and foundation. We think putting the city on notice may force them to look into what the cause is. Unless you can think of a reason why we should not i will call him on Monday morning.

THEY KNOW WHAT THE CAUSE IS

Also Arthur said the foundation has moved 1 1/4 inches. Dave asked how that measurement was determined. I have no idea. Do you?

Thanks,
Wayne

This E-mail was sent to Pete's office on a Sunday. By the time Pete got to his office on Monday, Wayne had already call the town. He should have waited for Pete's input as a director before making the call - He did NOT

Brenda had specifically asked Wayne Not to do any thing yet !!

SmartZone Communications Center

brenda.henk@comcast.net

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Fw: Explanation

From : Pete Henk <pete@brownbronto.com>

Mon Oct 18 2010 4:56:18 PM

Subject : Fw: Explanation

To : Brenda Lee Henk <brenda.henk@comcast.net>

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

From: [Wayne Clapper](#)

To: [Pete Henk](#)

Cc: [David & Jeanne Blackstone](#)

Sent: Monday, October 18, 2010 10:02 AM

Subject: Explanation

Hi,

I called Dean at the Public Works dept in York. York does not have a city engineer, however, Dean is an engineer. I explained about our retaining wall cracking and our concern that our foundation could be undermined. He was familiar with our building and commented about the nice work we had done on it.

*

Dean said the drainage from Broadway comes out at Ocean Ave Extension and therefore the water from Broadway is being diverted away from us. He was also unaware of any projects that were done, both sewer and drainage, anywhere around our building. I mentioned the sink hole at the intersection of Marietta and Ocean Ave that was repaired and he said that was a manhole cover that had shifted.

He recommended a couple of structural engineers in York that we could hire to evaluate the wall and tell us what is going on.

Thanks,
Wayne

* The following Pictures ARE in regard to the ABOVE statement from DEAN at Public Works. (SEPT - OCT 2010)

? - If what they did on BROADWAY (which displace a lot of earth) is to carry water AWAY from us, then why ARE we still being flooded in March & April of 2011?

? - How could he possibly say NO work had been done near us? OR WHAT WAS TO COME??

This puddle at Willow - Ocean Ave & Ocean Ave Ext.
was so deep - even large trucks had trouble going
through it.



Just Gushing Past our Condo



If that is Surface Water - What do you think
the Ground Water Flow is doing?

Water that was supposed to be diverted AWAY from us



81

THESE PICTURES WERE TAKEN AFTER ABOUT 2 HOURS OF RAIN



These pictures were taken after rain stopped



ALL 3 Original
Engineering Reports
+
Hunks done November 2010

SmartZone Communications Center

brenda.henk@comcast.net

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RE: [REDACTED]

From : Wayne Clapper <wayneclapper@comcast.net>

Tue Oct 26 2010 6:39:48 PM

Subject : [REDACTED]**To :** djblackstone@verizon.net**Cc :** brenda henk <brenda.henk@comcast.net>

Hi Jeanne,

Real busy time for me at work so I do the best I can. I'm still trying to catch up from taking last Friday morning to meet with the structural engineer and spoke to him yesterday about getting an official report about the foundation. Although the engineer did not see the need for one to spend the money for a report I agree that it makes sense to have something official that says our foundation is good before they begin the repair work on the street in front of our building.

WHERE IS THE REPORT ?

Dave Ballou and I have been playing phone tag this week. We discussed the letter at our meeting on Sep 29 and he told me when it would be going out within two weeks. I sent him an email asking for a copy of the letter last week. He tried to call me on Saturday while I was away at Angie's hockey game and he left a message to call him Monday. I'll call him again tomorrow and find out what is happening. If it hasn't gone out there must be a good reason why. I'll send out an email to everyone concerned when I find out.

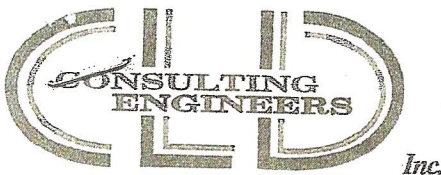
Maybe we could get something from Len in writing stating how our claim is progressing.

When did Pete send this mail to you? I've received nothing from Pete today which is the date this email says his message was sent. Weird. I'll copy Brenda on this one so he should get it.

Thanks,
Wayne

We have given you 4 reports all indicating an issue exists.

WHERE IS WAYNE'S REPORT FROM HIS ENGINEER SAYING WE ARE OK ?



"working together to achieve success"

visit us at www.cldengineers.com

July 28, 2004

Mr. John Moore
Mr. Bert Rosenthal
487 Boston Road
Groton, MA 01450

Re: York Beach Condo Association
Structural Evaluation
CLD Reference No. 04-0289

Dear John & Bert:

It was a pleasure meeting with you the other day. I have been giving this problem a lot of thought since then and have developed an explanation for the problem and course of corrective action. This letter will serve as a quasi-report and proposal for addressing the problem as I see it.

Problem Description

First of all, I believe the problem with the sagging beams in the basement has to do more with the design and construction of them, as opposed to some hidden structural flaw or deficiency in the building. By my estimation, the beams are significantly undersized and the deformation of the joists at the bearing plates, and deformed bearing plates as well, and of course the obvious sagging in the middle of the beams is all testaments to that assumption. The construction of the beams is also partly to blame for the compressed wood fibers at the bearing points. The simple placement of the plywood spacers has caused all of the loads to be transferred by the 2x10's onto the undersized bearing plates. This problem needs to be addressed sooner than later. We don't see the need to evacuate the building yet, but at the same time the sooner this problem is fixed the better. And until the corrections are made, we recommend that someone keep their eye on those beams to watch for signs of worsening conditions.

My first impression when I saw these beams was that someone was trying to save a few bucks during construction by fabricating their own beams with common 2x10's. The allowable stresses in this type of common lumber are much, much less than engineered (laminated) members that are typically used to fabricate such beams. Its one thing to sister a few 2x10's together in a pinch for non-critical areas, but it's another thing entirely to use them as main carrying beams.

The sloping floors and minor cracks in the individual apartments did not seem to be related to the undersized beams, mainly because of the direction of the slopes did not correlate to the sagging in the basement beams. The cracking I saw along the tops of the walls was most likely a result of

poor construction practices and not structurally related. The only cracks that could be related to loads were the two cracks in the up stairs apartments that started at the top of door jambs and were both diagonally oriented. These look like cracks that may be caused by movement. The movement can be caused by a shifting foundation or structure, or simply by the movement caused by the force of wood when it expands and shrinks every year due to changes in relative humidity. These cracks should be measured and monitored over time and compared to other new cracks that may appear.

I did not see any cracking in the basement slab near the point of bearing of the steel lally columns. This is reassuring. But as I mentioned the other day, it would behoove us to determine what is underneath the slab. I would also like to establish some baseline measurements in the basement area to monitor the movements of the structural members and to help us determine the levelness of the floors in the lower level apartments. The other cracking in the slab appeared to be related to lack of control joints in the slab as opposed to structural inadequacies.

My opinions are based on visible defects only. Hidden flaws or defects may exist and may or may not be contributing to this problem. We do not propose a highly detailed, destructive inspection of the building to determine if there are any such defects. But we do believe that a long-term monitoring program needs to be established to keep track of building movements and cracks to gauge the changes over time.

Proposed Scope of Services

Our scope of services involves preparing a corrective action design and monitoring plan for the building. We need to perform some more detailed analysis of the existing conditions and prepare a design based on those conditions. At the same time we would set up an easily followed monitoring program that would be used by you owners to keep track of building changes/movements.

Task 1. Describe Existing Conditions

This involves returning to the site to measure more closely the structural members in the basement area, and preparing an existing conditions plan of this area to use with the ongoing monitoring plan. This will involve establishing elevations of the beams and the slab at the column bearing points, as well as measuring all visible structural components in this area. We will also establish a temporary bench mark that will be used to measure movements within this area. As part of this task, we will also cut at least 3 holes in the slab to determine its construction and support substrate. These holes will be patched and troweled smooth afterwards. I propose a budget for this task of \$1,600.

York Beach Condo Assoc.
CLD Reference No. 04-0289
July 26, 2004
Page - 3

Task 2. Prepare a Design to Correct Obvious Deficiencies

We propose to focus on obvious structural problems, i.e. the beams and their connections to the columns. If we turn up other problems during Task 1, we will address them as well. We will prepare construction details suitable for use by Building Contractors to correct the problem. I propose a budget for this task of \$1,500.

Task 3. Preparation of a Monitoring Program.

We will prepare a monitoring program that will be suitable for use by owners to track changes in the structural members and foundation/slab, in the basement area only. I propose a budget for this task of \$500. The total recommended budget is therefore \$3,600. We propose to perform this work on a time and materials basis.

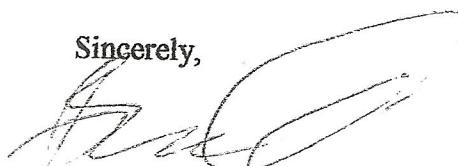
Proposed Schedule

Given the urgency of the problem, we recommend that immediate action be taken and we are prepared to begin work immediately upon Notice to Proceed. We would have Task 1 done within 2 weeks of said notice, and our Corrective Action Plan (CAP) would be done within 4 weeks of said notice. As soon as this Plan is complete, we would have you notify a list of building contractors to solicit bids for the corrective work.

The monitoring plan would be completed after the CAP is done.

Thank you for the opportunity to be of service, and we look forward to hearing from you soon.

Sincerely,



Bruce Crawford, P.E.

BEC:sk

A.V. Engineering, LLC

Custom Design & Engineering

P.O. Box 1254
Wells, ME 04090

Phone 207-251-0820

Email: avanasse@av-engineering.com

CLIENT:

ADDRESS:

JOB NAME: Rogers Residence ←

JOB LOCATION: Ocean Ave, York Beach, ME 03910

A.V. Engineering, LLC will provide design services for the following:

- **ENGINEERING, DESIGN, AND DETAILING OF EXISTING GIRDERS TO MAKE SUPPORT SYSTEM STRUCTURAL SOUND DUE TO GRAVITY LOADS.**
- ON-SITE DATA COLLECTION OF EXISTING CONDITIONS DRAWN TO SCALE
- PROJECT TO BE DEVELOPED ON 11" X 17" (CAD), AND 8 1/2" X 11" SHEETS
DETAIL SLETCHES
- ESTIMATE DOES NOT INCLUDE ANY PATHOLOGY ANALYSIS OF LOAD TRANSFER FROM ROOF TO GIRDERS.
- ESTIMATE DOES NOT INCLUDE ENTERING AND DOCUMENTING AS-BUILT FLOOR PLANS OF ANY CONDO UNIT
- CONTRACTOR TO BE RESPONSIBLE FOR ALL MEANS & METHODS INVOLVED IN ALL CONTRUCTION.

Work will be scheduled on this project after we receive a signed copy of this agreement at our office. A retainer in the amount of: \$1500. is required.

Compensation for this project will be billed at \$50 per hour plus cost items and mileage, if applicable. The total estimated range fee is approximately \$ 3,800 . Billings will be made periodically for services performed and expenses incurred. Should we encounter problems which will cause us to exceed our total fee; we will notify you immediately of the additional charges which will be added to the above estimated fee and payable by the client.

This LETTER OF AGREEMENT represents the entire understanding between you and AV Engineering, LLC with respect to this project. If this contract satisfactorily set forth your understanding of the arrangement between us, please sign below and return a copy to us.

ACCEPTED FOR A.V. ENGINEERING, LLC BY:

Jim Wan, Pres.

DATE: 30-Sept-04

ACCEPTED FOR CLIENT BY:

DATE: _____

Terminology

1. LETTER of AGREEMENT (or AGREEMENT) - The contractual agreement between the Client and the ENGINEER, which includes these GENERAL CONTRACT TERMS, to be treated as one complete document.
2. CLIENT - The person or agent who has signed the AGREEMENT.
3. ENGINEER - A.V. Engineering, LLC or a duly authorized representative thereof.
4. PROJECT- The actual work that is to be performed by the ENGINEER as outlined in the AGREEMENT.

Agreement Conditions

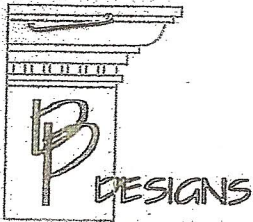
1. Client has the right to terminate this contract at any time by written notice to the ENGINEER; in which case, termination does not take effect until 24 hours after delivery to the ENGINEER. In this event all accrued charges will be billed, and payable; any work done will be available to CLIENT upon final payment.
2. CLIENT to provide full access to the PROJECT.
3. CLIENT to provide full information and criteria as to the requirements for the PROJECT: exam and respond promptly to ENGINEER'S submissions.
4. Unless provided for otherwise in this agreement, the CLIENT agrees to limit the liability of the ENGINEER to the amount of the total fee paid to the ENGINEER. No liability to the ENGINEER for this project to extend beyond 5 years after AGREEMENT date.
5. The CLIENT is solely responsible for payment of services rendered under this AGREEMENT, as billed by the ENGINEER.
6. ENGINEER is the sole owner of all original plans, notes, data, etc. Copies are available according to terms of this AGREEMENT.
7. Payment on all billings are due within 7 days of billing date, otherwise a charge of 1.5% (18% per year) will be added to the total amount. In the event that any portion or all of the final billing remains unpaid for a period of 60 days, the CLIENT shall pay all cost of collection, including actual attorney's fees.
8. Unless otherwise specified in this agreement, the price indicated for the total fee is an estimate; any conditions which may cause the total fee to be exceeded during the course of the work, are to be reported to the CLIENT upon knowledge of the facts, and before proceeding further with the

ct.

9. All documents prepared for the client in regard to the agreement are only for the use of CLIENT in regard to the PROJECT only.

10. The AGREEMENT is non-transferable for either party, and rights or benefits herein are not available to anyone other than the CLIENT or the ENGINEER. The AGREEMENT may be amended (in writing) by mutual consent of the CLIENT and the ENGINEER:

11. The ENGINEER reserves the right to assign personnel and equipment to the PROJECT, and to record billable time.



Architecture • Engineering • Construction

To: Condominium owners
#39 Ocean Avenue
York Beach, Maine 03910

From: Dan Poland Designs LLC

Re: structural integrity #39 Ocean Avenue

Field Report October 15, 2004

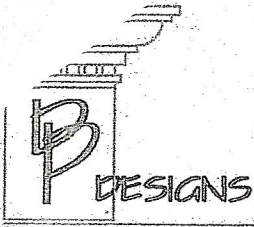
I accompanied Kris Lynes on an inspection of the basement of #39 Ocean Avenue at her request. She relayed to me the concern of several owners about excessive "sag" in some structural girders in the basement and the suspicion that there may be a connection between this and other problems throughout the building such as cracking or uneven floors, doors sticking, etc.

Based on the apparent age of the building, I suspect the girders in question are not original and were part of renovations performed on the structure at the time it was converted to condominiums. My visual inspection of the exposed framing in the basement leads me to believe the renovations were performed by workmen and project supervisors who should have been more diligent in their responsibilities. Many main supporting structural elements are deflecting unacceptability under what appears to be a combination of excessive loads and supporting column spacings. Load bearing connections and fastening details are also inadequate and require improvement.

Based on my initial 'walk through' review of site conditions, I don't feel the structure is in immediate danger of structural collapse. However I do believe this situation warrants further detailed investigation. To this end, please find enclosed proposal for a review of #39 Ocean Avenue by Dan Poland Designs LLC.

Handwritten notes: "DBS does not" and "summarize"

Handwritten note: "summarize"



PROPOSAL

Condominium Owners
#39 Ocean Avenue
c/o Kris Lynes
PO box 774, York Beach, ME 03910

November 16, 2004

Dan Poland Designs LLC proposes to furnish services as outlined herein:

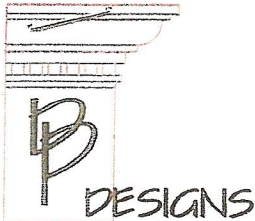
Project Location

#39 Ocean Avenue
York Beach, Maine 03910

Scope of Work

- Consult with occupants of building about any concerns or possible structure-related issues in each condo unit (i.e. doors not closing properly, suspicious wall or floor cracks etc.)
- Conduct an evaluation of each unit, attic and basement for signs of building movement and stress.
- Perform existing building measurements and mapping of each floor
- Produce an as-built plan of the structure to the extent possible without demolition of existing interior wall or ceiling finishes
- Supply client with (3) copies of all drawings
- Provide analysis of the problem areas extent and where they exist
- Propose mitigation and or repairs to be performed by Dan Poland Designs LLC to address identified structural deficiencies

Page 1 of 2
Initial _____



DAN POLAND DESIGNS LLC
P.O. Box 545 Barrington NH, 03825
603-942-7566 Fax 942-7666

Dan Poland Designs LLC is a design and construction firm bringing more than 25 years of experience to your project. By integrating architectural and engineering detailing along with proven construction techniques, we develop imaginative and thoughtful designs which combined with skilled craftsmanship produce superior results. Our commitment to quality and attention to detail provide the highest level of client satisfaction.

FIELD REPORT

Brenda Henks
To: Condominium owners
#39 Ocean Avenue
York Beach, Maine 03910

December 4, 2010

From: Dan Poland Designs LLC

Re: Walk thru and summary of building conditions
#39 Ocean Avenue
York Beach, Maine 03910

At her request, I accompanied building occupant Brenda Henks and contractor Arthur Larson of Bricks and Boards Corp. on a cursory inspection of the basement of #39 Ocean Avenue on November 8, 2010.

I had inspected this basement previously in October of 2004 at the request of then occupant, Kris Lynes. I prepared a report summarizing that "Many main supporting structural elements are deflecting unacceptability under what appears to be a combination of excessive loads and supporting column spacings. Load bearing connections and fastening details are also inadequate and require improvement."

During this current walk thru I observed that new lally columns had been added in several locations and was informed by Brenda that a local man had been hired to install them a few years ago, prior to her moving into the building. It was her opinion from conversations with other occupants that these columns were intended as a "fix" to the structural problems of the building. My opinion is that they were either intended to be a temporary stop gap measure or whoever installed them didn't have a good grasp of the situation.

In my conversation with Brenda and Arthur, I was informed of the work that had been performed on the building over the past couple of years by Arthur's company and the problems that necessitated this work as well as continuing issues they have observed.

A brief summary: Roof leaks requiring replacement of asphalt roofing. During replacement the contractor notices that roof sheathing is laid in the wrong direction (plywood grain running parallel to roof trusses) and insufficiently fastened, sheathing is removed and applied properly and ice/ water barrier applied prior to new roofing. Water infiltration around windows requiring replacement of many windows (including all windows facing street/ ocean side of building). During replacement the contractor notices significant sheathing deterioration and replaces all plywood on affected sides of building, applies building wrap and installs windows per manufacturers specifications. However leaking around windows still persists, especially on the front of the building. Severe binding of front and interior doors requiring trimming and resetting of doors including sill adjustments. Stress cracking and continuing movement of drywall in interior hallways requiring repeated repairs. Cracking and movement of basement concrete slab- no repair performed. Arthur informed me of his observations that the basement slab seems to be in a state of ongoing movement. Cracks that are gaping one day might be closed a few days later then open again upon his next inspection. In the left rear corner of the building, the slab has sunk approximately 4" over the time Arthur has been working on the building.

My assessment, based on my cursory inspection and information provided by Brenda and Arthur is that there are dynamic load forces impacting the building adversely.

I suspect that the building; a 25 year old, 3-story wood framed structure constructed of conventional 2x4 platform construction with some large windows and subject to direct ocean weather conditions is deflecting unacceptably under wind loads and probably requires wind frame bracing. My observations of the new and poorly installed lally columns in the basement (the columns rest on small light gauge steel plates placed directly on the existing slab) and considering the observations of Arthur, I suspect that ground water is applying upward forces on portions of the floor under certain conditions then receding, possibly due to water-table levels in the immediate area. Because the new columns sit directly of the slab, the floor framing system of the building has periodic upward loads placed on it causing interior hallway framing stresses. Most of the building's foundation is 8" poured concrete, however a portion of the rear foundation is field stone/ rubble which I suspect is the remnants of an original building that occupied the site. This foundation type is known for uneven settling and movement especially if ground water is acting on it.

In conclusion: I recommend a detailed analysis of just how the building is performing currently, what are the precise structural and loading conditions that are causing the current issues and proposals for mitigation. It is my opinion that this work be performed by a licensed professional experienced in this type of project.

Sincerely,

Dan Poland Designs LLC, AIBD
PO Box 545
Barrington, NH 03825

From: Tim Donnell, Master Plumber

WE HAVE HAD TIM DO WORK HERE
SINCE MARCH OF 2009.

THE LAST TIME TIM WAS HERE DOING WORK
HE INCLUDED THIS NOTE WITH HIS BILL.

TIM DONNELL

Plumbing & Heating, Inc.

27 Ogunquit Rd
Cape Neddick, ME 03902
(207) 361-2768

JOB WORK ORDER

NO 5274

DATE 4/17/11 20

NAME

OCEAN EDGE BRENDA'S UNIT

LOCATION

CITY

STATE

PHONE

QUANT.

MATERIAL USED

PRICE

AMOUNT

	SERVICE CALL		75	00
1	WASHER		1	80

PIPES IN BASEMENT ARE
BEING STRESSED DUE TO
BUILDING SETTLING WATER
PIPES AND DRAIN PIPES
MAIN DRAIN NOW PITCHING
WRONG WAY

DESCRIPTION OF WORK

REPAIRED LEAKING SINK
DRAIN PIPE WAS PINCHED POSSIBLY
DUE TO BUILDING SETTLING

TOTAL MATERIAL

1 80

TOTAL LABOR

75 00

TAX

09

TOTAL

85 80

DATE COMPLETED

1 / 1

SIGNATURE

THANK YOU