



NOTES ON EXISTING SITUATION:

1. THE MAP ABOVE SHOWS THE LOCAL STREAMS, WHERE IT BECOMES CONSTRICTED AND WHERE FLOODING OCCURS DUE TO THIS CONSTRICTION.
2. THE CONSTRICTION BEGINS WHERE STERLING STREET DEAD ENDS AT THE STREAM BANK. THE CONSTRICTION BEGINS AS THE OCCASIONAL BUILT UP BACK YARD (SEE PICTURE 3) TO A RESIDENT OF WALD STREET BUT IT QUICKLY PROGRESSES INTO A 2 FOOT WIDE CONCRETE CHANNEL (SEE PICTURE 4). THIS CHANNEL PROVIDES VERY LITTLE ROOM FOR INCREASE FLOW DURING THE STORMS. IT IS THE UNDERSTANDING OF RUTGERS UNIVERSITY THAT THIS CONSTRICTION FORCES THE WATER TO BACK UP TO THE END OF THE CONSTRICTION BEHIND WALD STREET AND FLOOD WALD ST DURING HEAVY RAIN STORMS.
3. STORMWATER IS COLLECTED FROM THE WETLAND NORTH OF THE FLOODING AND THE SURROUNDING NEIGHBORHOODS. IT IS COLLECTED INTO THE STORMWATER SEWER SYSTEM AND PIPED INTO THE STREAM SHOWN ABOVE. PICTURE 2 SHOWS THE STORMWATER OUTFALL STRUCTURE THAT DEPOSITS THE STORMWATER FROM THE SURROUNDING NEIGHBORHOOD TO THE STREAM. IN THE INLET OF THE STRUCTURE IS OBSTRUCTED BY DEBRIS. THIS SLOWS THE FLOW FROM THE WETLAND, REDUCING THE FLOOD AT THIS POINT IS REDUCING THE FLOODING DOWNSTREAM AT WALD STREET.
4. DURING SITE VISITS, A RESIDENT INFORMED RUTGERS THAT FREQUENTLY THROUGHOUT THE STREAM OVERFLOWS. THE RESIDENT WENT ON TO SAY THAT THE OVERFLOW IS SO BAD THAT SHE FEELS THAT NEEDS EVACUATE HER HOUSE BUT SOMETIMES CANNOT DUE TO FLOODING.

GENERAL NOTES:

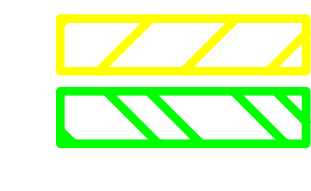
- 1 AERIAL PHOTOGRAPHY IS FROM NJDEP 2002
- 2 THIS IS NOT FOR PERMITTING OR CONSTRUCTION USE, THIS DRAWING IS ONLY TO BE USED FOR CONCEPTUAL PURPOSES.

NOTES FURTHER INVESTIGATION:

1. THE FLOODING OF WALD STREET IS A SERIOUS ISSUE THAT THE MUNICIPALITY SHOULD WORK TO RESOLVE. FREQUENTLY THROUGHOUT THE YEAR THE RESIDENTS ON WALD STREET FEEL THE MUST EVACUATE THEIR HOUSE OVER RAIN THAT IS NOT AT A FLOODING VOLUME.
2. MUNICIPALITY NEEDS TO MAP OUT THE STORMWATER SEWER SYSTEM THAT FEEDS INTO THIS STREAM. FROM OUT SITE VISITS THE STORMWATER STRUCTURE IN PICTURE IS OBVIOUSLY CONNECTED TO A GREATER SYSTEM BUT IT IS UNCLER AT THIS POINT HOW EXTENSIVE THIS SYSTEM IS.
3. THE FLOODING HAD NEVER BEEN WITNESSED BY THE TEAM THAT INVESTIGATED THIS SITE. THEY ONLY HAVE THE ACCOUNTS OF ONE RESIDENT TO GO BY. THE MUNICIPAL ENGINEER NEEDS TO VISIT THE SITE AND TALK TO ALL THE RESIDENT S OF WALD STREET TO CONFIRM OR DISPROVE THE SERIOUS STATEMENT.
4. THE BEST SOLUTION TO THIS PROBLEM WOULD BE TO RELAX THE CONSTRICTION OF THE STREAM AROUND 497 LELAND AVENUE. UNFORTUNATELY, THIS WOULD MOSTLY LIKELY MEAN THAT THE MUNICIPALITY WOULD HAVE TO BUY EASEMENTS OR WHOLE PROPERTIES FROM RESIDENTS LIVING THERE NOW.
5. THIS IS A COMPLEX SYSTEM THAT HAS MASSIVE AMOUNTS OF WATER BEING DIRECTED TOWARDS IT. THE MUNICIPALITY MUST BUILD A COMPLETE STORMWATER MODEL TO CONFIRM THE FLOODING AND THAT THE SOLUTION CHOSEN FOR THIS PROJECT WILL CORRECT THE FLOODING PROBLEM.
6. PICTURE TWO SHOWS AN OBSTRUCTED INLET FOR THE STREAM. IT IS RECOMMENDED THAT THIS OBSTRUCTION BECOME PERMANENT. THE MUNICIPALITY SHOULD REDUCE THE SIZE OF THE INLET TO ENSURE THERE IS A REDUCED FLOW COMING FROM UPSTREAM TO HELP REDUCE TO PREVENT AN INCREASE IN FLOODING WALD STREET.
7. A LAND AQUISTION ACTION MAY BE REQUIRED ON THE PART OF THE MUNICIPALITY OR COUNTY TO WIDEN THE STREAM TO MEET RUNOFF CAPACITY.

LEGEND

- WETLAND
- AREA PRONE TO FLOODING
- STREAM



PICTURE 1: UPSTREAM FROM WHERE CONSTRICTION BEGINS.



PICTURE 3: CONSTRICTION OF THE STREAM BEGINS HERE AND INCREASES DOWN STREAM.



PICTURE 2: OBSTRUCTED INLET, REDUCES THE FLOW ENTERIN THE CONSTRICTED AREA.



PICTURE 4: STREAM IS CONSTRICTED TO A 2 FOOT WIDE CONCRETE CHANNEL.

CHRISTOPHER C. OBROPTA, Ph.D., P.E.
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DESIGNED: SPW CCO
CHECKED: CCO
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MILESTONE 4 OF REGIONAL STORMWATER MANAGEMENT PLAN FOR THE ROBINSON'S BRANCH
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

UNNATURAL CONSTRICTION FLOODING



JOB	CONCEPT SHEET #
BRANCH	5
B/O	TOTAL
4	7

DRAFT

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