

**THE CORPORATION OF THE TOWN OF AMHERSTBURG**

**BY-LAW NO. 2003-05**

**A by-law to authorize the signing of a Development Agreement.**

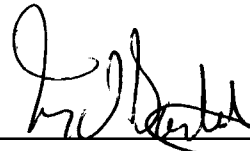
**WHEREAS** 1461689 Ontario Ltd. has proposed the development of property at Sandwich and Fort Streets for use as a supermarket;

**AND WHEREAS** the Council of the Town of Amherstburg and owners of the said property have agreed to the terms and conditions of a Development Agreement in the form annexed hereto;

**NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWN OF AMHERSTBURG HEREBY ENACTS AS FOLLOWS:**

1. That the Mayor and Clerk be and they are hereby authorized to execute the original and copies of a Development Agreement in the form annexed hereto and affix the Corporate Seal thereto.
2. This By-law shall come into force and effect on the date of final passage hereof.

Read a first, second and third time and finally passed this 27th day of January, 2003.



Mayor



Clerk

Certified to be a true copy of By-law No.  
2003-05 passed by the Amherstburg  
Municipal Council on January 27, 2003.

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TOWN OF AMHERSTBURG

DEVELOPMENT AGREEMENT

BETWEEN: 1461689 ONTARIO LTD.

-AND-

THE CORPORATION OF THE TOWN OF AMHERSTBURG

DATE:

## DEVELOPMENT AGREEMENT

Registered \_\_\_\_\_, 2003

THIS AGREEMENT made in quintuplicate this \_\_\_\_\_ day of \_\_\_\_\_, 2003.

BETWEEN:            1461689 ONTARIO LTD.

hereinafter called the "OWNER"  
OF THE FIRST PART

- and -

THE CORPORATION OF THE TOWN OF  
AMHERSTBURG

hereinafter called the "CORPORATION"  
OF THE SECOND PART

WHEREAS the lands affected by this Agreement are described in Schedule "A" attached hereto, and are hereinafter referred to as the "said lands";

AND WHEREAS the Owner warrants it is the registered owner of the said lands;

AND WHEREAS, in this Agreement the "Owner" includes an individual, an association, a partnership or corporation and, wherever the singular is used therein, it shall be construed as including the plural;

AND WHEREAS the Official Plan in effect in Amherstburg designated parts of the area covered by the Official Plan as a Site Plan Control area;

AND WHEREAS the Owner intends to develop or redevelop the said lands for a supermarket, in accordance with the Site Plan attached hereto as Schedule "B", and hereinafter referred to as the "Site Plan";

AND WHEREAS the Corporation as a condition of development or redevelopment of the said lands requires the Owner to enter into a Development Agreement;

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of other goods and valuable consideration and the sum of FIVE (\$5.00) DOLLARS of lawful money of Canada, now paid by each of the parties hereto to each of the other parties hereto, (the receipt of which is hereby acknowledged), the Owner hereby covenants and agrees with the Corporation as follows:

1.     The following Schedules, which are identified by the signatures of the parties to this Agreement, and which are attached hereto, are hereby made a part of this Agreement as fully and to all intents and purposes as though recited in full herein:

SCHEDULE "A"	-	Legal Description of the said lands
SCHEDULE "B"	-	Site Plan
SCHEDULE "C"	-	Landscaping Plan
SCHEDULE "D"	-	Paving and Grading Plan
SCHEDULE "E"	-	Site Servicing Plan
SCHEDULE "F"	-	Stormwater Detention Calculations

2. Schedule "A" hereto describes the lands affected by this Agreement.
3. Schedule "B" hereto shows:
  - (a) The location of all buildings and structures to be erected;
  - (b) The location and provision of off-street vehicular loading and parking facilities and access driveways including driveways for emergency vehicles;
  - (c) Walkways and all other means of pedestrian access;
  - (d) The location and provision for the collection and storage of garbage and other waste material.
4. Schedule "C" hereto shows:
  - (a) Landscaping plan and plant list.
5. Schedule "D" hereto shows:
  - (a) Paving and grading plan.
6. Schedule "E" hereto shows:
  - (a) Site servicing drawings.
7. Schedule "F" hereto shows:
  - (a) Stormwater detention calculations.
8. The Owner shall be responsible for consulting with and obtaining any necessary approvals from Essex Power Lines Corporation regarding any matters that relate to services provided by Essex Power Lines. The Owner shall also be responsible for conveying any required easements for the existing hydro overhead lines or new easements around the property if hydro lines need to be relocated.
9. The Owner shall be responsible for consulting with and obtaining any necessary approval from the Ministry of the Environment or the Essex Region Conservation Authority.
10. All of the exterior walls of the building shall be faced with decorative block, brick, stone, stucco, structural glass, tile, baked enamel on steel or similar finished material.
11. All parking or loading areas and lanes and driveways shall be paved with asphalt or a concrete portland cement or other material capable of permitting accessibility under all climatic conditions, as shown on Schedule "B" and together with crushed stone, slag, gravel, crushed brick, tile, cinders or like material, having a combined depth of at least 15.2 cm. and with provisions for drainage facilities. The area shown on Schedule "B" located on the north side of the structure which is shown with a granular "A" finish shall be maintained and provided with dust control.
12. The Owner shall maintain a minimum of parking spaces, as designated on Schedule "B".

13. All walkways on the said lands, where so designated on Schedule "B", shall be constructed of either concrete or interlocking paving stone by the Owner to the satisfaction of the Corporation.
14. If any curbs, sidewalks, boulevards or highway surfaces of the Corporation are damaged during the development by the Owner, such damage shall be repaired or replaced by the Owner.
15. Snow removal from the parking or loading areas and lanes, driveways and walkways shall be the responsibility of the Owner.
16. The Owner shall install and maintain a system for the disposal of storm and surface water as indicated on Schedule "E" and Schedule "F" so that no such water will flow along the surface from the said lands onto any adjoining lands. All storm and surface water disposal systems shall be to the satisfaction of the Corporation's Engineer, and separated from the sanitary sewer.
17. Any garbage or refuse that is stored outside shall be stored in a non-combustible container and maintained so that the garbage or refuse does not blow or fall out of the container.
18. Any and all lighting shall be installed and maintained so as to not, in the opinion of the Corporation, interfere with the use or enjoyment of adjacent properties or with the safe flow of traffic on abutting or adjacent streets.
19. The Owner shall landscape and maintain in plants and ground cover acceptable to the Corporation those lands so indicated on Schedule "C". The Owner agrees that the site will be inspected on an annual basis and any deficiencies will require immediate correction in accordance with the approved site plan.
20. A solid wood fence, stained or treated and maintained, with a minimum of 1.83 metres high, shall be constructed and maintained along the limits of the property if shown on Schedule "B".
21. All driveways for emergency vehicles shall:
  1. Be connected with a public thoroughfare;
  2. Be designed and constructed to support expected loads imposed by firefighting equipment;
  3. Be surfaced with concrete, asphalt or other material capable of permitting accessibility under all climatic conditions;
  4. Have a clear width of 3 metres at all times;
  5. Be located not less than 3 metres and not more than 15.2 metres measured horizontally and at right angles from the face of the building;
  6. Have an overhead clearance not less than 4.5 metres;
  7. Have a change in gradient of not more than 1 in 12.5 over a minimum distance of 15.2 metres; and
  8. Have approved signs displayed to indicate the emergency route.
22. If the Ontario Building Code requires that an architect or professional engineer or both shall be responsible for the field review of any new building or extension provided for in this Agreement, the Owner shall not occupy or use or permit to be occupied or used any said new building or extension until after an architect or professional engineer has given to the Corporation a letter addressed to the Corporation and signed by him certifying that all services on or in the said lands, required for this development or redevelopment, newly installed by the Owner in

connection with this development or redevelopment and not contained within a building, have been installed and completed in a manner satisfactory to the architect or professional engineer.

23. The Corporation through its servants, officers and agents including its building inspector, plumbing inspector, fire chief, public works head and municipal engineer may from time to time and at any time enter on the premises of the Owner to inspect:
  1. The progress of development;
  2. The state of maintenance as provided for in this Agreement.
24. In the event of any servant, officer or agent of the Corporation determining upon inspection the development is not proceeding in strict accord with the plans and specifications filed, such servant, officer or agent shall forthwith place a notice requiring all work to be stopped upon the premises and forward a copy by registered mail to the Owner at his last address as shown by the revised assessment rolls, and the Owner shall forthwith correct the deficiency or deviation.
25. In the event of any servant, officer or agent of the Corporation upon inspection being of the opinion that the state of maintenance is not satisfactory, such servant, officer or agent shall forthwith forward notice of such opinion to the Owner by registered mail at his last address as shown from the revised assessment rolls, and the Owner shall forthwith correct the deficiency or appeal to Council of the Corporation as hereinafter provided.
26. In the event that an Owner should disagree with the opinion of the servant, officer or agent of the Corporation as to the state of maintenance, such Owner shall appear before Council of the Corporation, which after hearing the Owner, shall express its opinion as to whether the maintenance is satisfactory by resolution, which shall constitute a final determination of the matter.
27. In the event that an owner should fail to obey a stop work order issued under Section 24 hereof, the Owner recognizes the right of the Corporation to apply to the Courts for a restraining order.
28. In the event that an Owner should fail to correct a deviation or deficiency after notice pursuant to Section 25 or after notice of an opinion, which Council of the Corporation determines is correct under Section 26, the Council of the Corporation may by law direct or default of the matter or thing being done by the Owner, after two (2) weeks notice to it by registered mail at the last shown address of the Owner pursuant to the revised assessment rolls of passage of such by-law, that such matter or thing be done by the Corporation at the expense of the Owner, which expense may be recovered by action or like manner as municipal taxes.
29. In the event of an Owner wishing to change at any time any of the buildings, structures or facilities described in the plans annexed or referred to in Section 3 hereof, it shall make application to Council of the Corporation for approval and shall not proceed with such change until approval is given by such Council, or in default by the Ontario Municipal Board, under the procedure set out in Section 41 of the Planning Act, R.S.O. 1990 herebefore referred to.

30. This Agreement and the provisions thereof do not give to the Owner or any person acquiring any interest in the said lands any rights against the Corporation with respect to the failure of the Owner to perform or fully perform any of its obligations under this Agreement or any negligence of the Owner in its performance of the said obligations.
31. In the event that no construction on the said lands has commenced within one (1) year from the date of registration of this Agreement, the Corporation may, at its option, on one month's notice to the Owner, declare this Agreement to be subject to re-negotiation, whereupon the Owner agrees that it will not undertake any construction on the said lands until this Agreement has been re-negotiated.
32. All facilities and matters required by this Agreement shall be provided and maintained by the Owner at its sole risk and expense to the satisfaction of the Corporation and in accordance with the standards determined by the Corporation and in default thereof and without limiting other remedies available to the Corporation, the provisions of Section 469 of The Municipal Act shall apply.
33. A financial guarantee (Performance Bond, Letter of Credit or other security acceptable to the Corporation) for 100% of the cost of on-site improvements (other than buildings or structures) is required as part of the site plan agreement. The said amount to be approved by the Corporation's Manager of Public Services. A one (1) year maintenance security is also a requirement of this agreement with the option of reducing the security to 15% of the cost of the site improvements during the one (1) year maintenance period after the Town has inspected and initially approved same.
34. This Agreement shall be registered against the land to which it applies, at the expense of the Owner, and the Corporation shall be entitled, subject to the provisions of The Registry Act and The Land Titles Act, to enforce its provisions against the Owner named herein and any and all subsequent owners of the land.

IN WITNESS WHEREOF the Owner executed this Agreement.

OWNER: 1461689 ONTARIO LTD.

\_\_\_\_\_  
Joseph Mikhail - President

\_\_\_\_\_  
Lou Mikhail - Secretary

THE CORPORATION OF THE TOWN OF  
AMHERSTBURG

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Clerk

Authorized and approved by By-law  
No. 2003-05 enacted the 27th day  
of January, 2003.

## **SCHEDULE "A"**

The following is a description of the land to which this instrument applies:

Part Lots 10, 11, 12, 13, 14 and 15, Registered Plan 6

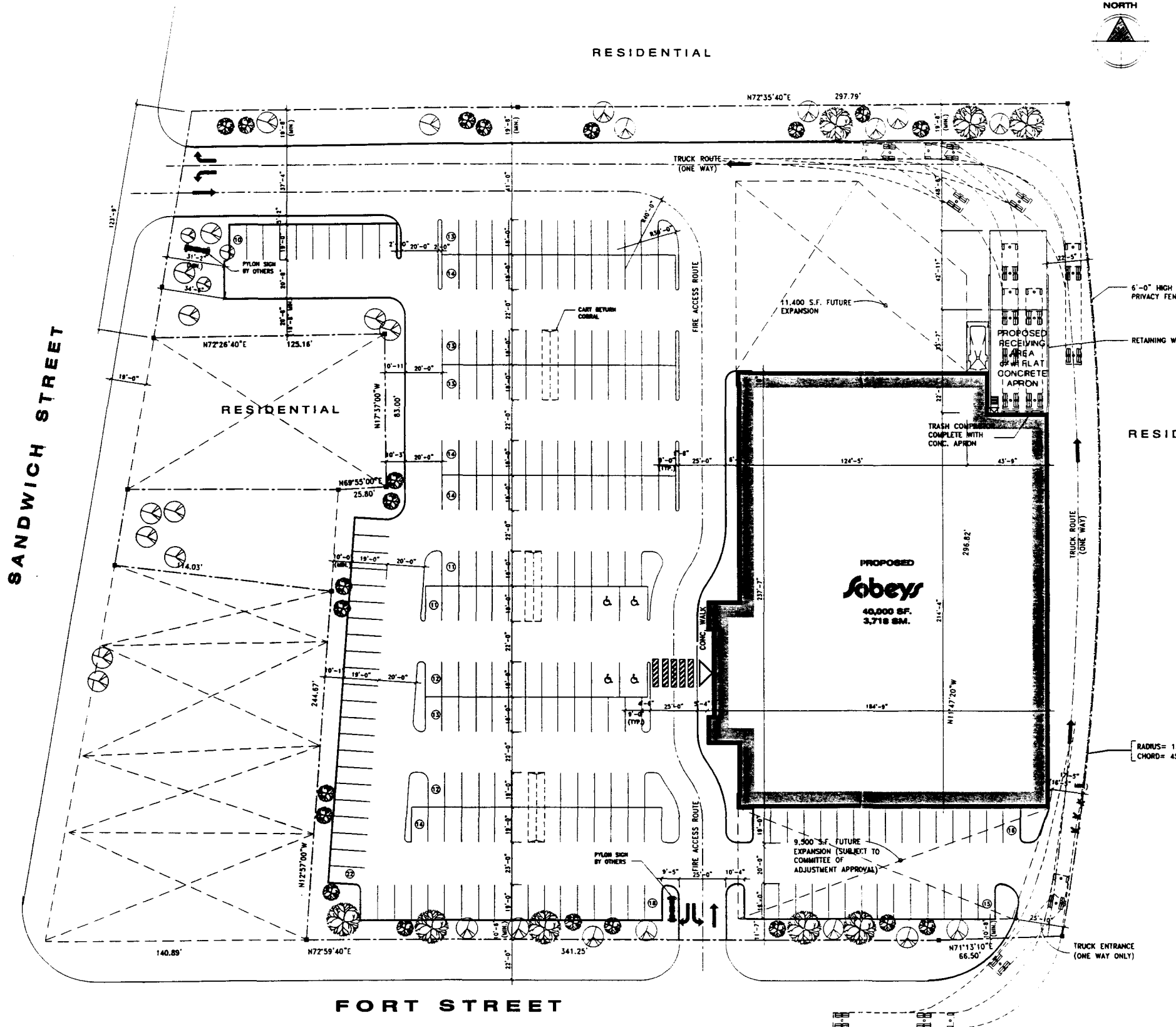
Part Lot 12, Registered Plan 6

Part Lot 16, Registered Plan 6

Part of Lot 2, Plan 240 designated as Part 1 on 12R-1449

Part Lot 14, Registered Plan 6





SITE INFORMATION		
PROPOSED SITE AREA	225,848 SF	15.18 ACRES
PROPOSED SUPERMARKET AREA	40,000 SF	13.715 SM
FUTURE ADDITION AREA	20,900 SF	11.941 SM
PARKING DATA		
PARKING REQUIRED	18 5.30 SPACES / 1,000 SF	220 SPACES
PARKING PROVIDED	18 5.87 SPACES / 1,000 SF RATIO PROVIDED	235 SPACES
PARKING REQUIRED AFTER ADDITION	18 5.30 SPACES / 1,000 SF	335 SPACES
PARKING PROVIDED AFTER ADDITION	18 3.35 SPACES / 1,000 SF RATIO PROVIDED	204 SPACES
PARKING PROVIDED WITHIN 250'-0" RADIUS FROM STORE ENTRANCE		217 SPACES

**GENERAL NOTES:**

- CONCEPT IS BASED ON SITE PLAN PROVIDED BY SOBEYS ONTARIO REAL ESTATE DEPARTMENT
- PARKING CONFIGURATION BASED ON A CONCEPT PROVIDED BY SOBEYS REAL ESTATE DEPARTMENT

SCHEDULE "B" TO  
BY-LAW 2003-05

1461689 ONTARIO LTD.

Joseph Mikhail - President

Lou Mikhail - Secretary

TOWN OF AMHERSTBURG

Mayor - Tony DiBartolomeo

Clerk - David Mailloux

No.	Description	Date
1	REVISE RECEIVING AREA / REVISE SITE DATA	01/23/02
2	REVISE FOOTPRINT / REVISE PARKING LAYOUT	01/23/02
3	REVISE STORE LOCATION AND FOOTPRINT / REVISE PARKING LAYOUT	01/23/02
4	REVISE STORE LOCATION AND FOOTPRINT / REVISE PARKING / REVISE DATA	01/23/02
5	REVISE STORE LOCATION / REVISE EAST SETBACK / REVISE PARKING	01/23/02
6	REVISE STORE RECEIVING / REVISE PARKING / REVISE TRUCK ACCESS TO SITE	11/26/02
7	RELOCATE AND REVISE STORE SHAPE / REVISE PARKING / REVISE DATA	11/26/02
8	REVISE STORE ENTRANCE / REVISE PARKING / REVISE DATA	11/26/02
9	UPDATE SITE TO SOBEYS STANDARDS / REVISE PARKING LAYOUT / REVISE TRUCK TURNING	11/26/02
10	SEE SH08 / OVERLAY	00/00/00
11	ADD RETAIL 'A' / REVISE PARKING LAYOUT	05/17/02
12	RELOCATE BUILDING / ADD ADJACENT PROPERTIES / REVISE PARKING / REVISE RECEIVING	04/02/02
13	DECREASE STORE SIZE / REVISE PARKING LAYOUT / REVISE SITE SIZE	03/18/02
14	INCREASE STORE SIZE / REVISE PARKING LAYOUT	02/25/02
15	REMOVE RETAIL 'A' / REVISE PARKING LAYOUT / REVISE ACCESS TO SITE	12/04/01
16	ADD RETAIL 'A' / REVISE PARKING LAYOUT / REVISE ACCESS TO SITE	08/14/01
17	REVISION AS PER CONCEPT SH02	00/00/00

The General Contractor shall check and verify all dimensions and report any discrepancies to Sobeys Ontario Division Engineering Department prior to proceeding with the work.

This drawing shall not be scaled or used for construction purposes.

This drawing shall be read in conjunction with all other related documents.



Sobeys Ontario Engineering Department  
6355 Viscount Road, Mississauga, Ontario  
L4V 1W2



Drawing Title:	
PROPOSED SITE CONCEPT	
Drawn By:	Checked By:
M.M.	
Date:	Scale:
11/06/02	1"=30'-0"
Project No.:	Drawing No.:
	SP17



**Plant List**

Key	Botanical Name	Common Name	Size	Root
<b>DECIDUOUS TREES</b>				
ApD	ACER PLATANOIDES 'DEBORAH'	DEBORAH MAPLE	60 cm	UB
AM	ACER RUBRUM 'MORGAN'	MORGAN RED MAPLE	60 cm	UB
GSh	GLEDITSIA TRIACANTHOS 'SHADEMASTER'	SHADEMASTER LOCUST	60 cm	UB
TG	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	60 cm	UB
<b>EVERGREENS</b>				
Cd	COTONEASTER DAMIERI	BEARBERRY COTONEASTER	30 cm	POT
FP	PINUS MUGO 'PUMILO'	DWARF MUGHO PINE	40 cm	POT
<b>DECIDUOUS/FLOWERING SHRUBS</b>				
As	ANELANCHIER ALNFOLIA	BASKATOON SERVICEBERRY	200 cm	UB
E&C	ELONITUS ALATA 'COMPACTA'	DWARF BURNING BUSH	60 cm	POT
SjS	OPHIRAEA JAPONICA 'SHIROBANA'	SHIROBANA SPIREA	30 cm	POT

**Notes**

FINE GRADE AND SOD ALL SITE AREAS EXCEPT THOSE WHERE PLANTING BEDS, PAVEMENT, OR BUILDINGS ARE INDICATED. EXTEND SOD TO PROPERTY LINES FOR INTERIOR LOT LINES AND TO CURB FOR STREET FRONTAGE.

SPREAD EXISTING TOPSOIL OVER SMOOTH SUBGRADE IN ORDER TO ACHIEVE A 4" MINIMUM DEPTH FOR ALL TURF AREAS. PROVIDE ADDITIONAL TOPSOIL AS REQUIRED. ADVISE LANDSCAPE ARCHITECT OF LOCATION OF STOCKPILE AND ALLOW ADEQUATE TIME FOR TESTING PRIOR TO IMPORTING SOIL.

REMOVE ALL DEBRIS FROM ALL PLANTING BEDS TO A DEPTH OF 18". FILL ALL PLANTING BEDS WITH A MIN. 18" OF FRIABLE TOPSOIL.

INSTALL 3" DEPTH CANADA RED MULCH IN ALL PLANTING BEDS AND IN THE ROOT SAUCERS OF TREES. MULCH SHOULD BE 1/2" BELOW THE ADJACENT SURFACE WITHIN 24" OF THE EDGE OF THE BED. NO WEED CONTROL FABRIC IS REQUIRED.

SUPPLY AND INSTALL COMMERCIAL GRADE POLY EDGING WHERE PLANTING BEDS ARE ADJACENT TO TURF. SECURE EACH 20' LENGTH OF POLYEDGER WITH 8 STEEL PEGS AND JOIN WITH PLASTIC CONNECTOR.

GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM ACCEPTANCE. REPLACE ALL DEAD OR WEAK PLANT MATERIAL PROMPTLY WHEN DIRECTED BY OWNER. GUARANTEE REPLACEMENTS FOR A PERIOD OF ONE YEAR FROM PLANTING. PLANTS DAMAGED DUE TO VANDALISM ARE NOT GUARANTEED.

VERIFY THE QUANTITIES OF PLANTS INDICATED IN THE PLANT KEYS WITH THOSE DRAWN ON THE PLAN. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO TENDERING.

NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO COMMENCING WORK, AFTER STAKING THE LOCATIONS OF PROPOSED WORK, AND PRIOR TO BACKFILLING EXCAVATIONS.

ALL WORK TO BE PERFORMED IN COMPLIANCE WITH THE HEALTH AND SAFETY ACT 1980, ONTARIO Reg. 213/81, 714/82 LATEST REVISIONS.

DETERMINE AND VERIFY THE LOCATION AND EXISTANCE OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. ADVISE THE LANDSCAPE ARCHITECT OF ANY CONFLICT BETWEEN THE PROPOSED WORK AND EXISTING UTILITIES. REPAIR ANY DAMAGE DONE AS A RESULT OF CONSTRUCTION. VERIFY THAT ALL EXISTING SITE CONDITIONS ARE AS SHOWN ON THE PLAN.

SCHEDULE "C" TO BY-LAW 2003-05

1461689 ONTARIO LTD.

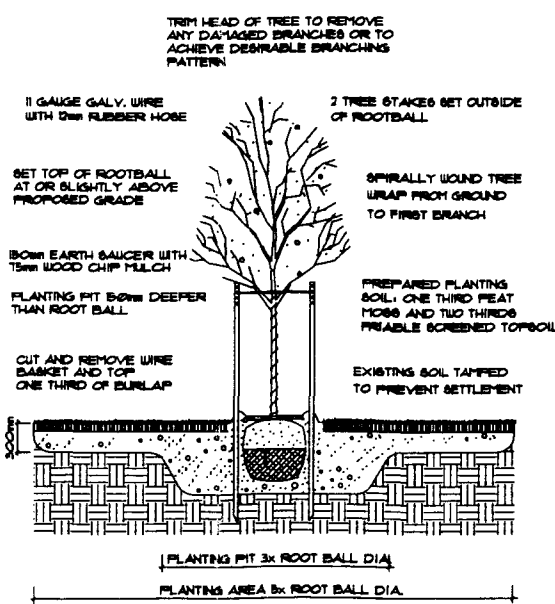
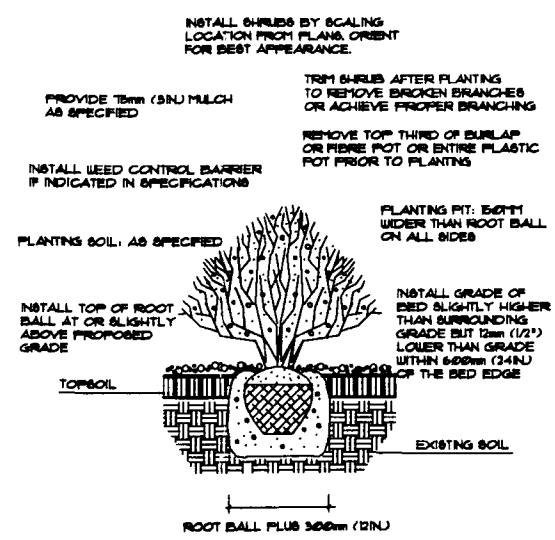
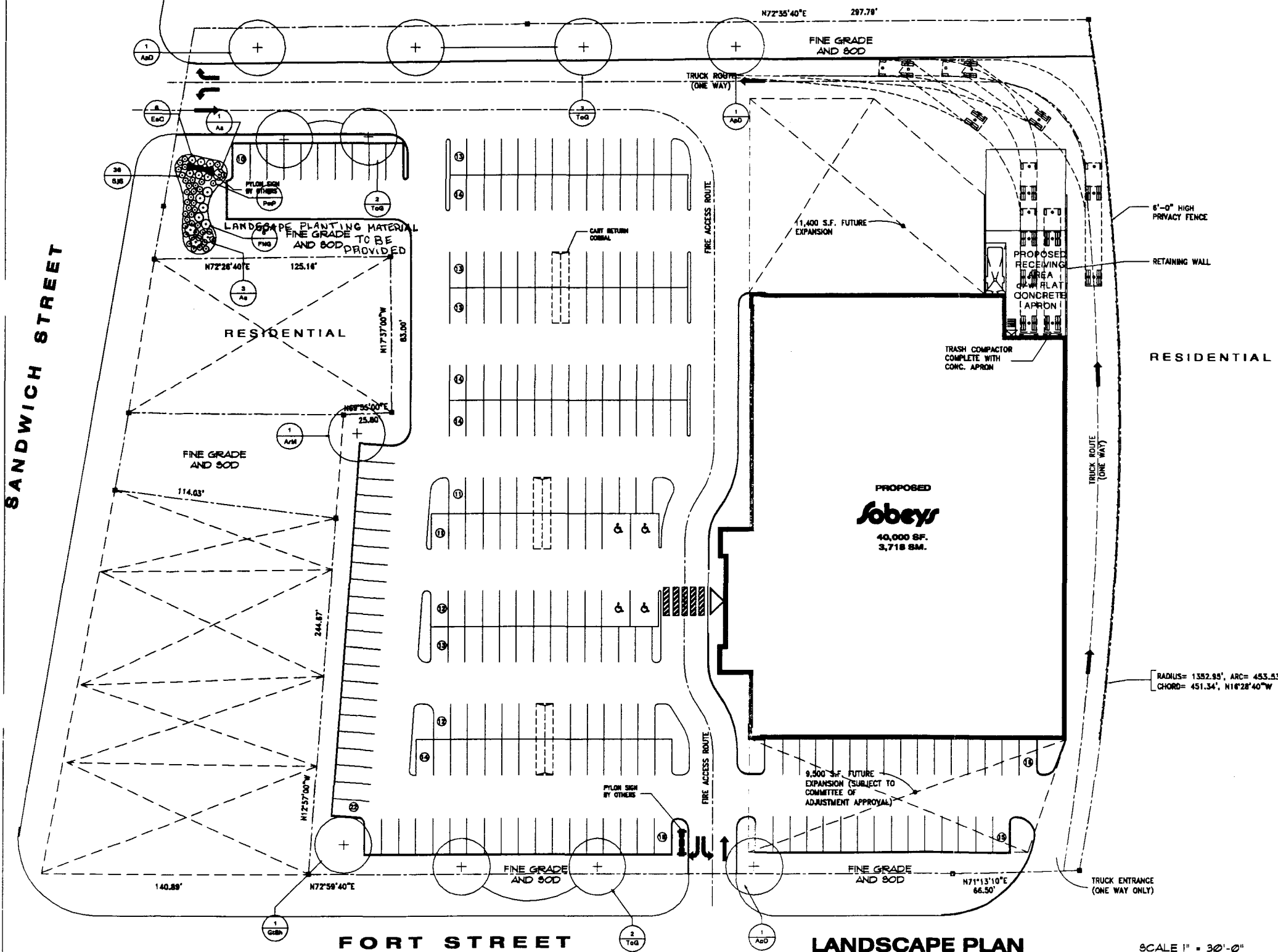
Joseph Mikhail - President

Lou Mikhail - Secretary

TOWN OF AMHERSTBURG

Mayor - Tony DiBartolomeo

Clerk - David Mailloux



SITE PLAN 011023

All drawings, specifications and other related documents are the copyright property of the CONSULTANT and shall be returned upon request. Reproduction of drawings and related documents, in whole or in part, is forbidden without the written permission of the CONSULTANT. The contractor shall check and verify all pertinent dimensions and report any discrepancies to the CONSULTANT before proceeding with the work.

PROJECT:  
**AMHERSTBURG SHOPPING PLAZA (SOBEYS)**  
AMHERSTBURG ONTARIO

DRAWING TITLE:  
**LANDSCAPE PLAN AND DETAILS**

SCALE:  
As Noted

DRAWN BY:  
GDB

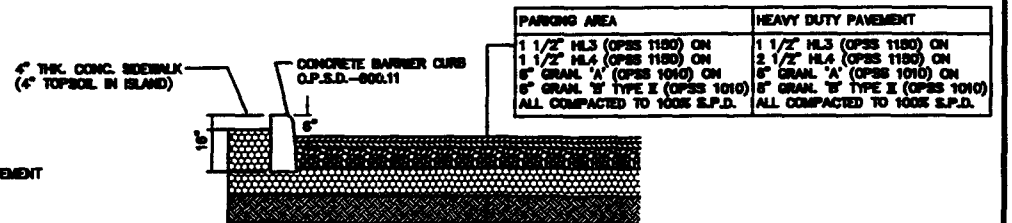
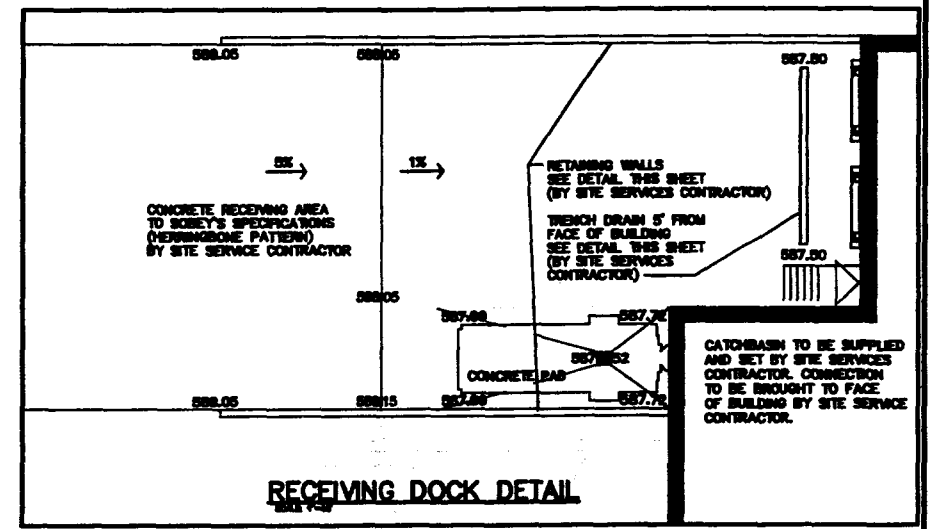
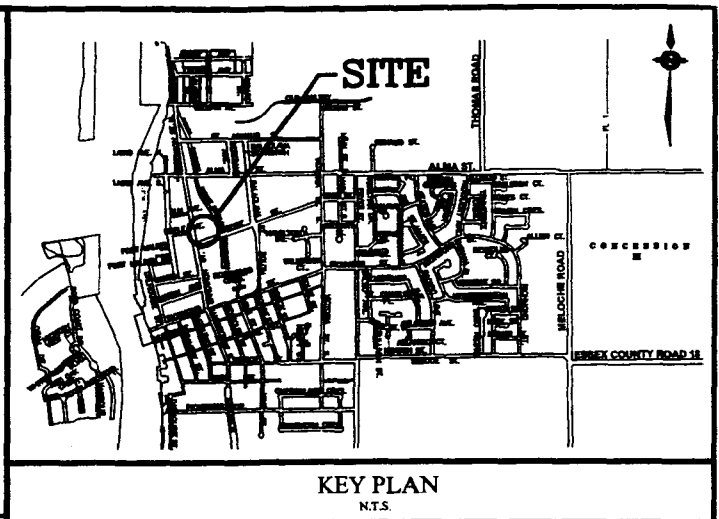
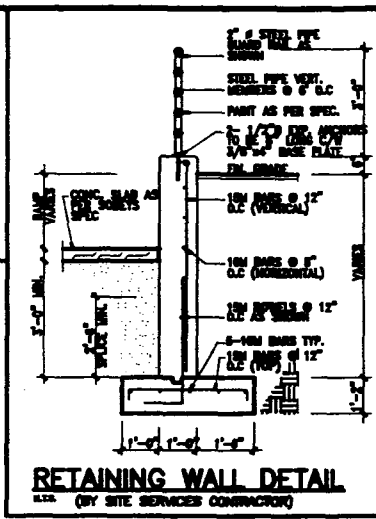
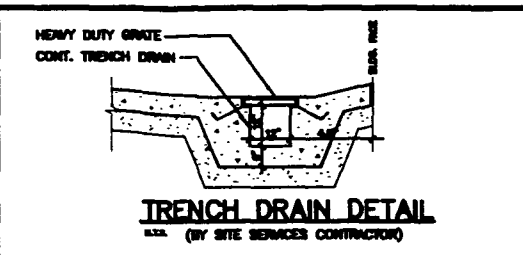
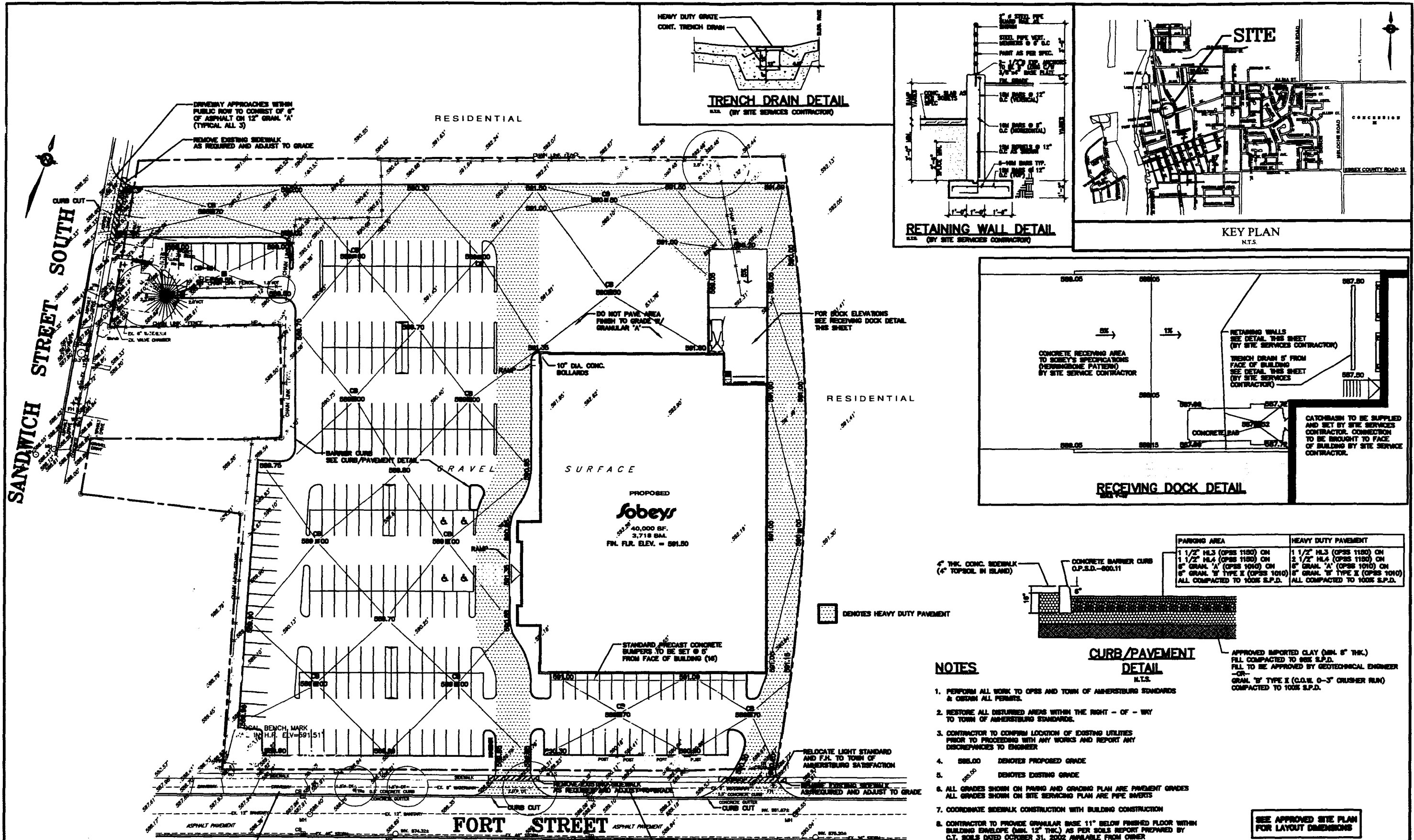
CHECKED BY:  
FLB

APPROVED BY:

DATE:  
10/10/02

DRAWING NO:  
**LA-1**

BEZ. FILE NO.: 551



PARKING AREA	HEAVY DUTY PAVEMENT
1 1/2" HL3 (OPSS 1180) ON	1 1/2" HL3 (OPSS 1180) ON
1 1/2" HL4 (OPSS 1180) ON	2 1/2" HL4 (OPSS 1180) ON
6" GRAN 'A' (OPSS 1010) ON	6" GRAN 'A' (OPSS 1010) ON
6" GRAN 'B' TYPE I (OPSS 1010)	6" GRAN 'B' TYPE I (OPSS 1010)
ALL COMPACTED TO 100% S.P.D.	ALL COMPACTED TO 100% S.P.D.

**NOTES**

- PERFORM ALL WORK TO OPSS AND TOWN OF AMHERSTBURG STANDARDS & OBTAIN ALL PERMITS.
- RESTORE ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY TO TOWN OF AMHERSTBURG STANDARDS.
- CONTRACTOR TO CONFIRM LOCATION OF EXISTING UTILITIES PRIOR TO PROCEEDING WITH ANY WORKS AND REPORT ANY DISCREPANCIES TO ENGINEER.
- 888.00 DENOTES PROPOSED GRADE
- 888.05 DENOTES EXISTING GRADE
- ALL GRADES SHOWN ON PAVING AND GRADING PLAN ARE PAVEMENT GRADES ALL GRADES SHOWN ON SITE SERVICES PLAN ARE PIPE INVERTS
- COORDINATE SIDEWALK CONSTRUCTION WITH BUILDING CONSTRUCTION
- CONTRACTOR TO PROVIDE GRANULAR BASE 11" BELOW FINISHED FLOOR WITHIN BUILDING ENVELOPE (MIN. 12" THK.) AS PER SOILS REPORT PREPARED BY C.T. SOILS DATED OCTOBER 31, 2002 AVAILABLE FROM OWNER
- ALL CATCHBASINS TO HAVE EZ FLOW RESTRICTOR PLATES WITH A 2.6'x2.6' SQUARE ORIFICE

SEE APPROVED SITE PLAN FOR LAYOUT DIMENSIONS

SCHEDULE "D" TO BY-LAW 2003-05

1461689 ONTARIO LTD.  
Joseph Mikhail - President

TOWN OF AMHERSTBURG  
Mayor - Tony DiBartolomeo

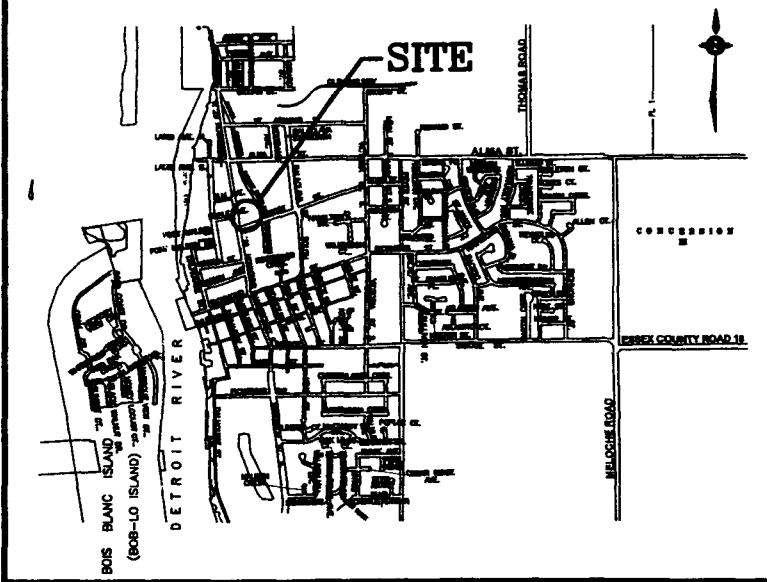
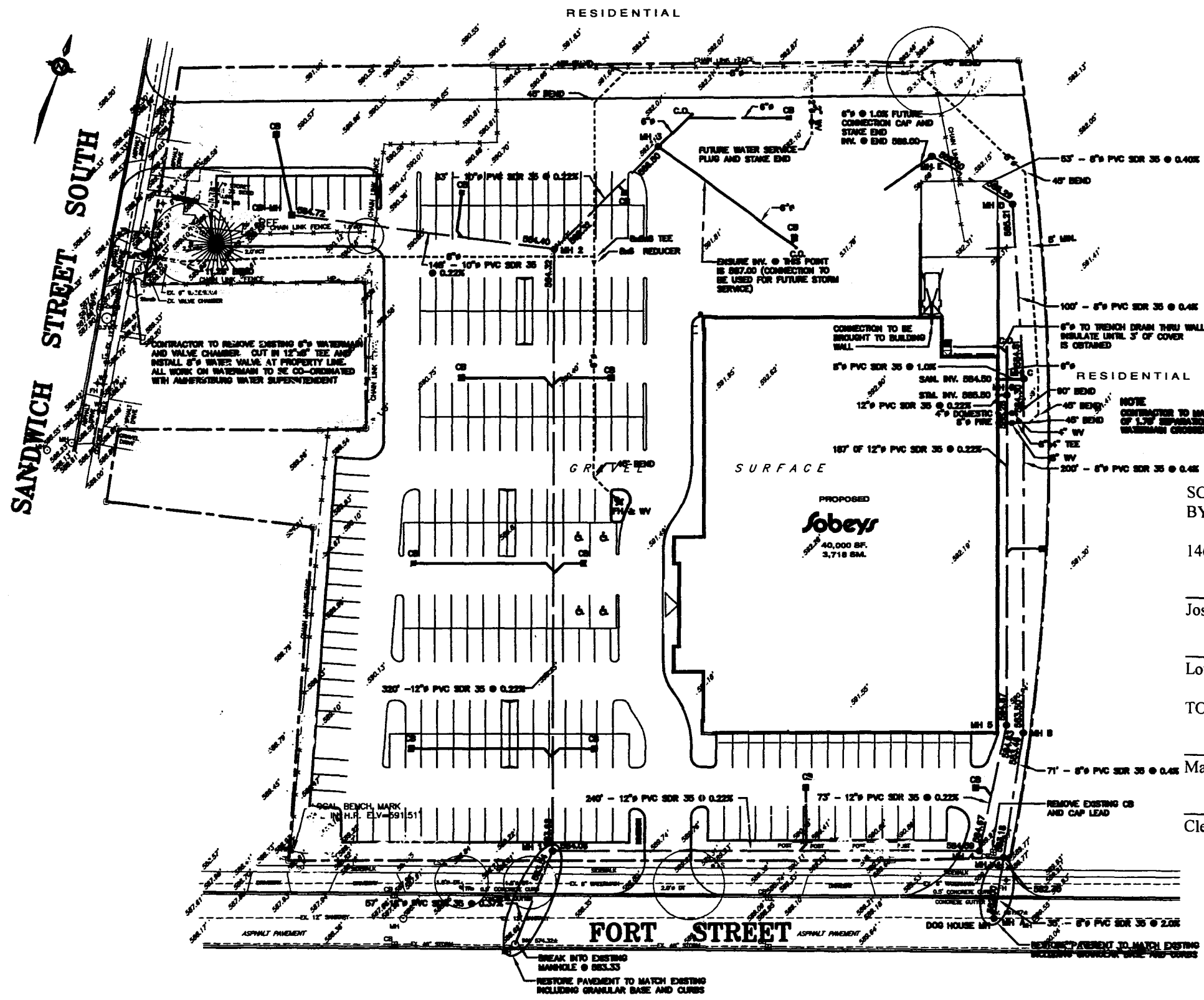
**hes** Home, School and Senior Ltd.  
Consulting Engineers  
WINDSOR, ONTARIO

NO.	DATE	BY	SCALE
1.	OCT 21, 2002	R.C.S.	DATE
2.	NOV 7, 2002	R.C.S.	DATE
3.	JAN 14, 2003	R.C.S.	DATE
4.	JAN 21, 2003	R.C.S.	DATE
5.	JAN 22, 2003	R.C.S.	DATE

AMHERSTBURG SHOPPING PLAZA  
**PAVING & GRADING PLAN**  
PROJECT NO. C102-1003  
SHEET NO. 1 OF 2

Lou Mikhail - Secretary

Clerk - David Mailloux



KEY PLAN  
N.T.S.

**NOTES:**

1. PERFORM ALL WORK TO OPBS AND TOWN OF AMHERSTBURG STANDARDS
2. ALL WATERMANS & SERVICES TO HAVE 5' MIN. COVER
3. SEWER BEDDING IS CLASS 'Y' EXCEPT CLASS 'A' TO FIRST PIPE JOINT OUTSIDE MANHOLES.
4. GRANULAR 'B' BACKFILL IS TO BE USED AS BACKFILL FOR ALL TRENCHES (SEWER, WATERMAIN, ETC.) COMPACTED TO 100% S.P.D.
5. CATCH BASIN LEADS TO BE 4" PVC SDR 26 @ 2.0% UNLESS NOTED AS 6" PVC SDR 26 @ 1.0%
6. ALL MANHOLES ARE 46" PRECAST CONCRETE UNLESS OTHERWISE NOTED
7. ALL PRECAST CATCH BASINS TO BE 24" x 24" TO OPBS SPEC.
8. NO BENCHING REQUIRED IN STORM SEWER MANHOLES.
9. LOCATION OF BUILDING SERVICES TO BE CONFIRMED WITH OWNER
10. ALL BUILDING SERVICES TO BE BROUGHT WITHIN 5' OF BLDG. -OR- BEYOND CURB

SCHEDULE "E" TO  
BY-LAW 2003-05

1461689 ONTARIO LTD.

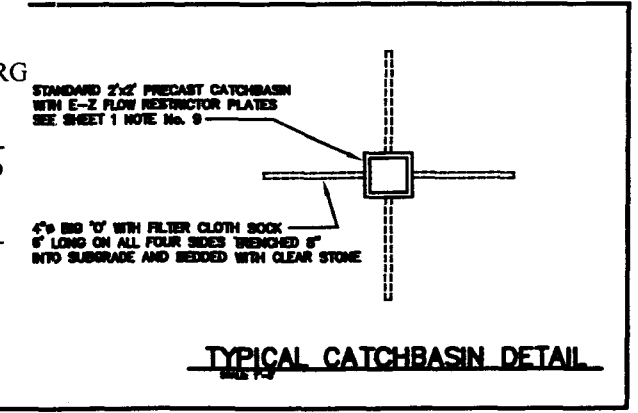
Joseph Mikhail - President

Lou Mikhail - Secretary

TOWN OF AMHERSTBURG

Mayor - Tony DiBartolomeo

Clerk - David Mailloux



**LEGEND:**

- SANITARY SEWER
- STORM SEWER
- ..... WATERMAIN CLASS 150 DR18 TO C800 SPECS

SEE APPROVED SITE PLAN  
FOR LAYOUT DIMENSIONS

**hes** Heas, Gaird and Spencer Ltd.  
Consulting Engineers

WINDSOR, ONTARIO

5.	REVISED WATER AND SANITARY	JAN 22, 2003	R.C.S.	HEAS	P.M.
4.	REVISED AS PER SOBEY'S COMMENTS	JAN 21, 2003	R.C.S.	HEAS	R.C.S.
3.	ISSUED TO TOWN FOR APPROVAL	JAN 14, 2003	R.C.S.	HEAS	P.M.
2.	ISSUED TO TOWN FOR APPROVAL	NOV 7, 2002	R.C.S.	HEAS	R.C.S.
1.	ISSUED TO TOWN FOR APPROVAL	OCT 28, 2002	R.C.S.	HEAS	OCT 2002
NO.		DATE	BY	SCALE	1" = 30'

AMHERSTBURG SHOPPING PLAZA

**SITE SERVICES PLAN**

PROJECT NO.	C102-1003
SHEET NO.	2
OF	2

Amherstburg Shopping Plaza

10 January 2003

File: C102-1003

Storm Detention Calculations

(1:2 Year)

area = 4.58 acres

Existing Conditions:

$C = 0.2$

$t_c = 20 \text{ min} \Rightarrow i = 2.373 \text{ in/hr.}$

$$Q_{EX} = 4.58(0.2)(2.373) = 2.17 \text{ c.f.s.}$$

Proposed Conditions:

area bldg. = 0.92 acres  $\Rightarrow C = 0.95$

area pave. = 3.02 acres  $\Rightarrow C = 0.9$

area lands. = 0.64 acres  $\Rightarrow C = 0.2$

$$AC_{TOTAL} = 0.92(0.95) + 0.9(3.02) + 0.2(0.64) = 3.72$$

$$Q_{NEW} = 3.72(2.373) = 8.83 \text{ c.f.s.}$$

$Q_{NEW} \gg Q_{EX}$  Storm Detention Required

$\therefore$  Storage Required = 8,462 cubic feet =  $S_{Req'd}$

SCHEDULE "F" TO BY-LAW 2003-05

1461689 ONTARIO LTD.

TOWN OF AMHERSTBURG

\_\_\_\_\_  
Joseph Mikhail - President

\_\_\_\_\_  
Mayor - Tony DiBartolomeo

\_\_\_\_\_  
Lou Mikhail - Secretary

\_\_\_\_\_  
Clerk - David Mailloux

**STORM WATER DETENTION CALCULATIONS (2 YEAR)**

**PROJECT:** Amherstburg Shopping Plaza  
**LOCATION:** Amherstburg  
**DATE:** January 10, 2003  
**FILE:** C102-1003

**EXISTING CONDITIONS**

**AREA (acres)** 4.58  
**COEFFICIENT** 0.2  
**INTENSITY** 2.373

$Q_{EX} = ACI = 4.58(0.2)(2.373) = 2.17 \text{ cfs}$

**PROPOSED CONDITIONS**

**AREA (acres)** 4.58  
**COEFFICIENT** 0.81  
**INTENSITY** 2.373

$Q_{NEW} = ACI = 4.58(0.81)(2.373) = 8.83 \text{ cfs}$

**DESIGN CRITERIA**

**STORM FREQUENCY:** 1:2 YEARS  
**TOTAL AREA:** 4.58 acres  
**RELEASE Q:** 2.17 cfs  
**TIME (Tc):** 20 min.  
**PEAK Q:** 8.83 cfs  
**CA:** 3.72

<b>TIME (Tc)</b> (min)	<b>INTENSITY</b> (in/hr)	<b>PEAK Q</b> (cfs)	<b>VOLUME</b> (cf)	<b>RELEASE VOLUME</b> (cf)	<b>STORAGE</b> (cf)
5	5.701	5.302	1590.55	651	940
10	3.678	6.841	4104.84	1302	2803
15	2.846	7.942	7147.49	1953	5194
20	2.373	8.828	10593.63	2604	7990
25	2.061	7.666	11499.75	3255	8245
30	1.837	6.832	12297.34	3906	8391
35	1.666	6.197	13014.70	4557	8458
40	1.531	5.696	13669.84	5208	8462
45	1.421	5.287	14275.04	5859	8416
50	1.330	4.946	14839.08	6510	8329
55	1.252	4.657	15368.49	7161	8207
60	1.185	4.408	15868.28	7812	8056

THEREFORE, MAXIMUM STORAGE REQUIRED IS 8,462 CUBIC FEET

Storage Available (2 Year)

Building Storage 2,175 cubic feet  
(see attached calc's)

restrict roof drains to 0.437 c.f.s.

$$\text{avg. water depth} = \frac{2175}{40000} = 0.05' \approx 0.65''$$

Ground Storage (6" of water @ CB's)

6540 cubic feet

$$\therefore \text{Storage Available} = 6540 + 2175 = 8715 \text{ ft}^3 \\ = S_{\text{Avail}_2}$$

$$\therefore S_{\text{Avail}_2} \gg S_{\text{Req'd}_2}$$

## Restrictor Plate Orifice Calculation

13 CB's

$$2.17 / 13 = 0.167 \text{ c.f.s.}$$

$$0.167 = 0.6 A \sqrt{2(32.17)(0.5)}$$

$$A = 0.049 \text{ ft}^2$$

$$A = x^2$$

$$x = 0.221' \approx 2.6''$$

∴ E-Z Flow Restrictor Plates to be Installed @ all CB's w/ 2.6" x 2.6" square orifice.



Amherstburg Shopping Plaza

10 January 2003

File: C102-1003

Storm Detention Calculations

(1:100 Year)

$$\text{area} = 4.58 \text{ acres}$$

Existing Conditions:

$$C=0.2$$

$$t_c = 20 \text{ min}$$

$$\Rightarrow \bar{i} = 5.568 \text{ in/hr.}$$

$$Q_{\text{EX}} = 0.2(4.58)(5.568) = 5.10 \text{ c.f.s.}$$

Proposed Conditions:

$$AC_{\text{TOTAL}} = 3.72$$

$$Q_{\text{NEW}} = 3.72(5.568) = 20.71 \text{ c.f.s.}$$

$Q_{\text{NEW}} > Q_{\text{EX}}$  Storm Detention Required.

$$\therefore \text{Storage Required} = S_{\text{Req'd, 100}} = 27,931 \text{ cubic feet}$$

**STORM WATER DETENTION CALCULATIONS (100 YEAR)**

**PROJECT:** Amherstburg Shopping Plaza  
**LOCATION:** Amherstburg  
**DATE:** January 10, 2003  
**FILE:** C102-1003

**EXISTING CONDITIONS**

**AREA (acres)** 4.58  
**COEFFICIENT** 0.2  
**INTENSITY** 5.568

$Q_{EX} = ACI = 4.58(0.2)(5.568) = 5.10 \text{ cfs}$

**PROPOSED CONDITIONS**

**AREA (acres)** 4.58  
**COEFFICIENT** 0.81  
**INTENSITY** 5.568

$Q_{NEW} = ACI = 4.58(0.81)(5.568) = 20.71 \text{ cfs}$

**DESIGN CRITERIA**

**STORM FREQUENCY:** 1:100 YEARS  
**TOTAL AREA:** 4.58 acres  
**RELEASE Q:** 2.17 cfs  
**TIME (Tc):** 20 min.  
**PEAK Q:** 20.71 cfs  
**CA:** 3.72

<b>TIME (Tc)</b> (min)	<b>INTENSITY</b> (in/hr)	<b>PEAK Q</b> (cfs)	<b>VOLUME</b> (cf)	<b>RELEASE VOLUME</b> (cf)	<b>STORAGE</b> (cf)
5	10.026	9.324	2797.34	651	2146
10	7.873	14.643	8786.02	1302	7484
15	6.511	18.166	16349.24	1953	14396
20	5.568	20.714	24857.11	2604	22253
25	4.875	18.135	27202.90	3255	23948
30	4.343	16.155	29078.58	3906	25173
35	3.920	14.584	30625.50	4557	26068
40	3.577	13.305	31932.14	5208	26724
45	3.291	12.243	33056.98	5859	27198
50	3.050	11.347	34040.36	6510	27530
55	2.844	10.579	34911.11	7161	27750
60	2.665	9.914	35690.42	7812	27878
65	2.509	9.332	36394.29	8463	27931
70	2.370	8.818	37035.02	9114	27921

THEREFORE, MAXIMUM STORAGE REQUIRED IS 27,931 CUBIC FEET

Storage Available (100 Year)

Building Storage 6873 cubic feet  
(see attached calc's)

restrict roof drains to 0.437 c.f.s.

$$\text{avg. water depth} = \frac{6873}{40000} = 0.17' \approx 2.06''$$

Ground Storage (12" of water @ CR's)

$$6540 + 39225(0.5) = 26153 \text{ cubic feet}$$

$$\therefore \text{Storage Available} = S_{\text{Avail}}_{100} = 33,026 \text{ ft}^3$$

$$\therefore S_{\text{Avail}}_{100} \gg S_{\text{Req'd}}_{100}$$

**STORM WATER DETENTION CALCULATIONS (Building 2 YEAR)**

**PROJECT:** Amherstburg Shopping Plaza  
**LOCATION:** Amherstburg  
**DATE:** October 22, 2002  
**FILE:** C102-1003

**EXISTING CONDITIONS**

**AREA (acres)** 0.92  
**COEFFICIENT** 0.2  
**INTENSITY** 2.373

$Q_{EX} = ACI = 0.92(0.2)(2.373) = 0.437 \text{ cfs}$

**PROPOSED CONDITIONS**

**AREA (acres)** 0.92  
**COEFFICIENT** 0.95  
**INTENSITY** 2.373

$Q_{NEW} = ACI = 0.92(0.95)(2.373) = 2.07 \text{ cfs}$

**DESIGN CRITERIA**

**STORM FREQUENCY:** 1:2 YEARS  
**TOTAL AREA:** 0.92 acres  
**RELEASE Q:** 0.437 cfs  
**TIME (Tc):** 20 min.  
**PEAK Q:** 2.07 cfs  
**CA:** 0.874

<b>TIME (Tc)</b> (min)	<b>INTENSITY</b> (in/hr)	<b>PEAK Q</b> (cfs)	<b>VOLUME</b> (cf)	<b>RELEASE VOLUME</b> (cf)	<b>STORAGE</b> (cf)
5	5.701	1.246	373.69	131.1	243
10	3.678	1.607	964.42	262.2	702
15	2.846	1.866	1679.28	393.3	1286
20	2.373	2.074	2488.93	524.4	1965
25	2.061	1.801	2701.82	655.5	2046
30	1.837	1.605	2889.21	786.6	2103
35	1.666	1.456	3057.75	917.7	2140
40	1.531	1.338	3211.68	1048.8	2163
45	1.421	1.242	3353.87	1179.9	2174
50	1.330	1.162	3486.39	1311	2175
55	1.252	1.094	3610.77	1442.1	2169
60	1.185	1.036	3728.19	1573.2	2155

THEREFORE, MAXIMUM STORAGE REQUIRED IS 2,175 CUBIC FEET

**STORM WATER DETENTION CALCULATIONS (Building 100 YEAR)**

**PROJECT:** Amherstburg Shopping Plaza  
**LOCATION:** Amherstburg  
**DATE:** October 22, 2002  
**FILE:** C102-1003

**EXISTING CONDITIONS**

**AREA (acres)** 0.92  
**COEFFICIENT** 0.2  
**INTENSITY** 5.568

$$Q_{EX} = ACI = 0.92(0.2)(5.568) = 1.02 \text{ cfs}$$

**PROPOSED CONDITIONS**

**AREA (acres)** 0.92  
**COEFFICIENT** 0.95  
**INTENSITY** 5.568

$$Q_{NEW} = ACI = 0.92(0.95)(5.568) = 4.87 \text{ cfs}$$

**DESIGN CRITERIA**

**STORM FREQUENCY:** 1:100 YEARS  
**TOTAL AREA:** 0.92 acres  
**RELEASE Q:** 0.437 cfs  
**TIME (Tc):** 20 min.  
**PEAK Q:** 4.87 cfs  
**CA:** 0.874

**STORM WATER DETENTION CALCULATIONS (Building 100 YEAR) -Cont'd.**

<b>TIME (Tc)</b> (min)	<b>INTENSITY</b> (in/hr)	<b>PEAK Q</b> (cfs)	<b>VOLUME</b> (cf)	<b>RELEASE VOLUME</b> (cf)	<b>STORAGE</b> (cf)
5	10.026	2.191	657.23	131.1	526
10	7.873	3.440	2064.24	262.2	1802
15	6.511	4.268	3841.19	393.3	3448
20	5.568	4.867	5840.08	524.4	5316
25	4.875	4.261	6391.22	655.5	5736
30	4.343	3.796	6831.90	786.6	6045
35	3.920	3.426	7195.35	917.7	6278
40	3.577	3.126	7502.34	1048.8	6454
45	3.291	2.877	7766.61	1179.9	6587
50	3.050	2.666	7997.65	1311	6687
55	2.844	2.486	8202.23	1442.1	6760
60	2.665	2.329	8385.33	1573.2	6812
65	2.509	2.192	8550.70	1704.3	6846
70	2.370	2.072	8701.24	1835.4	6866
75	2.247	1.964	8839.20	1966.5	6873
80	2.137	1.868	8966.40	2097.6	6869
85	2.038	1.781	9084.30	2228.7	6856
90	1.948	1.703	9194.07	2359.8	6834

THEREFORE, MAXIMUM STORAGE REQUIRED IS 6,873 CUBIC FEET