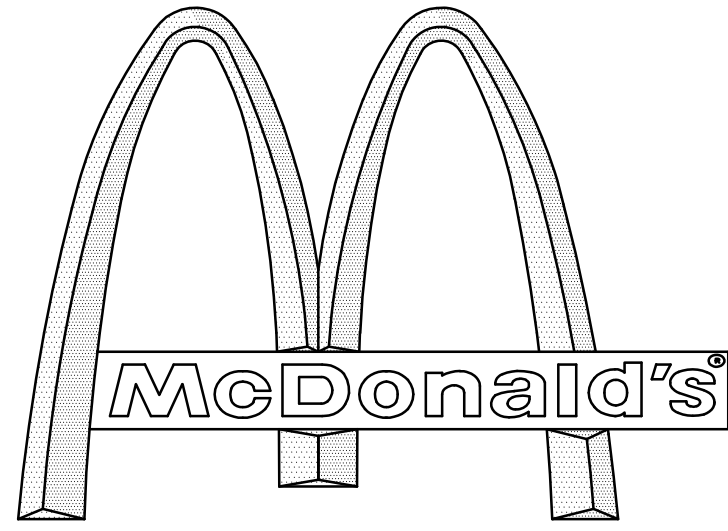


# SITE DEVELOPMENT PLANS

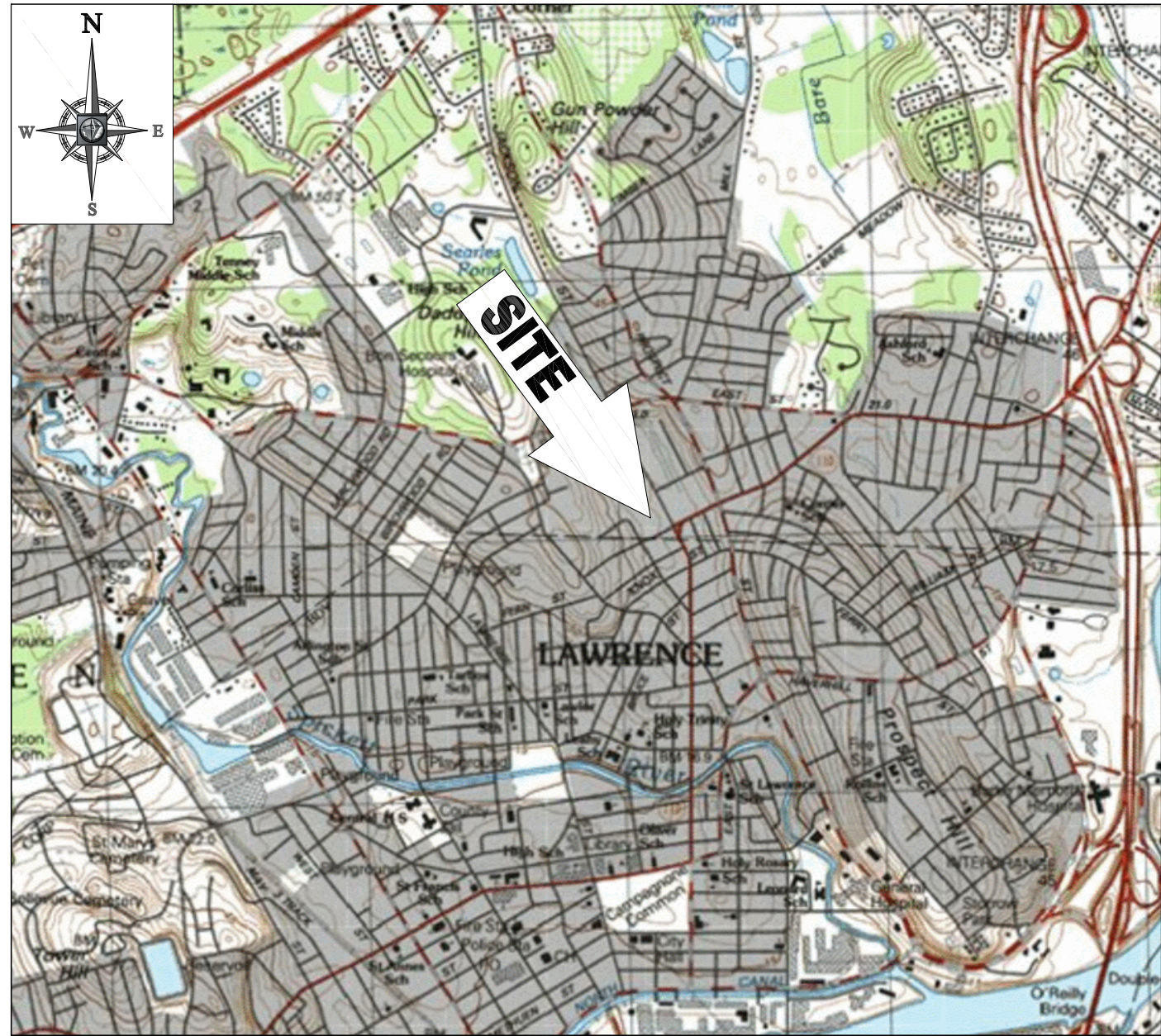
FOR:  
PROPOSED



WITH DRIVE-THRU

LOCATION OF SITE:

SWAN STREET & CORNISH STREET EXTENSION  
TOWN OF METHUEN,  
ESSEX COUNTY, MASSACHUSETTS  
PARCELS 816-96-11, 816-96-11B & 816-96-11C



LOCATION MAP

SCALE: 1"=2000'  
PLAN REFERENCE: LAWRENCE, MASS-NEW HAMPSHIRE USGS QUADRANGLE



AREA PLAN

SCALE: 1"=150'

| SHEET TITLE  | SHEET NUMBER |
|--|--------------|
| COVER SHEET  | C-1 OF 16    |
| GENERAL NOTES SHEET                                | C-2 OF 16    |
| DEMOLITION PLAN                                    | C-3 OF 16    |
| OVERALL SITE PLAN                                  | C-4 OF 16    |
| SITE PLAN  | C-5 OF 16    |
| GRADING & DRAINAGE PLAN                            | C-6 OF 16    |
| UTILITY PLAN                                       | C-7 OF 16    |
| SOIL EROSION & SEDIMENT CONTROL PLAN               | C-8 OF 16    |
| SOIL EROSION CONTROL NOTES & DETAILS SHEET         | C-9 OF 16    |
| LANDSCAPE PLAN                                     | C-10 OF 16   |
| LANDSCAPE NOTES & DETAILS SHEET                    | C-11 OF 16   |
| LIGHTING PLAN                                      | C-12 OF 16   |
| DETAIL SHEET                                       | C-13 OF 16   |
| DETAIL SHEET                                       | C-14 OF 16   |
| DETAIL SHEET                                       | C-15 OF 16   |
| DETAIL SHEET                                       | C-16 OF 16   |
| ALTA SURVEY (BY OTHERS)                            | 1 OF 2       |
| ALTA SURVEY (BY OTHERS)                            | 2 OF 2       |
| BUILDING ELEVATIONS (BY OTHERS - SEPARATELY BOUND) |              |

DRAWING INDEX

## GENERAL NOTES:

1. BASES, ANCHOR BOLTS, CONDUIT, AND WIRING FOR ALL OTHER SIGNS ARE BY THE GENERAL CONTRACTOR.
2. 3/4" EMPTY CONDUIT TO LOCATIONS SHOWN AT THE LOT PERIMETER FOR LOT LIGHTING IS BY THE GENERAL CONTRACTOR. LIGHTING FIXTURES, BASES, POLES, CONDUIT, AND WIRING ARE BY THE OWNER/OPERATOR.
3. BASES FOR FLAGPOLES ARE BY THE GENERAL CONTRACTOR. ANCHOR BOLTS ARE BY THE FLAGPOLE SUPPLIER.
4. PROPOSED UTILITIES ARE SHOWN IN SCHEMATIC ONLY. EXACT LOCATIONS SHALL BE DETERMINED TO ALLOW FOR THE MOST ECONOMICAL INSTALLATION.
5. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE EXACT POINT OF SERVICE CONNECTION AT EXISTING UTILITY. REFER TO THE BUILDING ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY SERVICE ENTRANCE LOCATIONS, SIZES, AND CIRCUITING.
6. ALL ELEVATIONS SHOWN ARE BASED UPON: NAVD 88 PER SURVEY NOTE #7.
7. ALL LANDSCAPE AREAS SHALL BE ROUGH GRADED TO 6" BELOW TOP OF ALL WALKS AND CURBS. FINISH GRADING, LANDSCAPING, AND SPRINKLER SYSTEMS ARE BY THE OWNER/OPERATOR.
8. LOT LIGHTING CONCRETE FOOTINGS TO CONFORM WITH THE SOILS REPORT RECOMMENDATIONS FOR THIS PARTICULAR SITE. FOUNDATION DESIGN AND CONSTRUCTION IS BY THE GENERAL CONTRACTOR.

## PAVING SPECIFICATION

(SEE PAVEMENT DETAIL.)

### FLEXIBLE PAVEMENT SECTION:

- 1.5" M.04.02-CLASS 2 TOP COURSE
- 1.5" M.04.02-CLASS 1 BASE COURSE
- 12.0" M.02.06 TYPE C PROCESSED GRAVEL SUBBASE

### RIGID PAVEMENT SECTION:

- 6.0" 4500 PSI AIR-ENTRAINED CONCRETE
- 8.0" 4500 PSI AIR-ENTRAINED CONCRETE AT TRASH ENCLOSURE
- 12.0" M.02.06 TYPE C PROCESSED GRAVEL SUBBASE

NOTE: FINAL PAVEMENT SPECIFICATIONS TO BE COORDINATED WITH GEOTECHNICAL REPORT RECOMMENDATIONS. McDONALD'S ENGINEER RESERVES THE RIGHT TO REQUEST A COMPACTION TEST AND/OR A CORE SAMPLE. IF TESTS PROVE CORRECT PER ABOVE SPECIFICATION, TESTS WILL BE AT THE EXPENSE OF McDONALD'S, OTHERWISE, G.C. WILL BE CHARGED.

## LOT LIGHTING SUPPLIED BY

SECURITY LIGHTING SYSTEMS  
1085 JOHNSON DRIVE  
BUFFALO GROVE, IL 60089  
(800) 544 4848

NOTE: ELECTRICAL CONTRACTOR TO CIRCUIT LOT LIGHTING AS NOTED.

## PARKING INFORMATION

324 TOTAL SPACES (REFER TO OVERALL SITE PLAN)

TOTAL SPACES  
324

## UTILITY INFORMATION

|                | SIZE | TYPE    | LOCATION       |
|----------------|------|---------|----------------|
| SANITARY SEWER | 16"  | TBD     | JACKSON STREET |
| WATER          | TBD  | DI      | JACKSON STREET |
| STORM SEWER    | 12"  | RCP     | ON-SITE        |
| ELECTRIC       | TBD  | OH WIRE | ON-SITE        |
| GAS            | TBD  | TBD     | SWAN STREET    |

## SURVEY INFORMATION

PREPARED BY: CONTROL POINT ASSOCIATES, INC.  
382 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
JOB #: CM13231  
DATE: OCTOBER, 23 2013  
REVISED: DECEMBER 2, 2013

## EXISTING CONDITIONS LEGEND

- 124 125 EXISTING CONTOUR
- x 123.45 EXISTING SPOT ELEVATION
- HYDRANT
- WV WATER VALVE
- OH OVERHEAD WIRES
- E APPROX. LOC. UNDERGROUND ELEC. LINE
- T APPROX. LOC. UNDERGROUND TELE. LINE
- W APPROX. LOC. UNDERGROUND WATER LINE
- UTILITY POLE
- UTILITY POLE/LIGHT POLE
- GUY WIRE
- SIGN
- BOLLARD
- AREA LIGHT
- PAY PHONE
- PAINTED ARROWS
- PARKING SPACE COUNT
- RAILROAD TIE WALL

STREET ADDRESS  
SWAN STREET@ CORNISH STREET EXT.

CITY MASSACHUSETTS

COUNTY ESSEX

REGIONAL DWG. NO. - PLAN DESCRIPTION  
COVER SHEET

## J.A. KUCICH

PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE NO. 41030  
CONNECTICUT LICENSE NO. 38177  
RHODE ISLAND LICENSE NO. 9618  
MAINE LICENSE NO. 12503

McDonald's

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NORTHEAST REGION  
680 CANTON STREET  
WESTWOOD, MA

OFFICE ADDRESS

DATE

PLAN APPROVALS

SIGNATURE

APPROVED McDONALD'S AGENT

STATUS DATE BY

DRAWN BY: 12/31/13 EGD

PLAN CHECKED JAK

AS-BUILT SHEET NO. C-1

OF 16

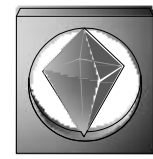
APPROVED BY THE COMMUNITY DEVELOPMENT BOARD

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DATE: \_\_\_\_\_



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ENGINEERING

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900  
Fax: (508) 480-9080  
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CENTER VALLEY, PA  
CHALFONT, PA  
PHILADELPHIA, PA  
STERLING, VA  
WASHINGTON, VA  
FORT LAUDERDALE, FL  
TAMPA, FL

CONSTRUCTION CHECK DATE

CONSTRUCTION CHECK DATE

PROJECT No.:  
W132002

CAD I.D. #:  
W132002ss9.dwg



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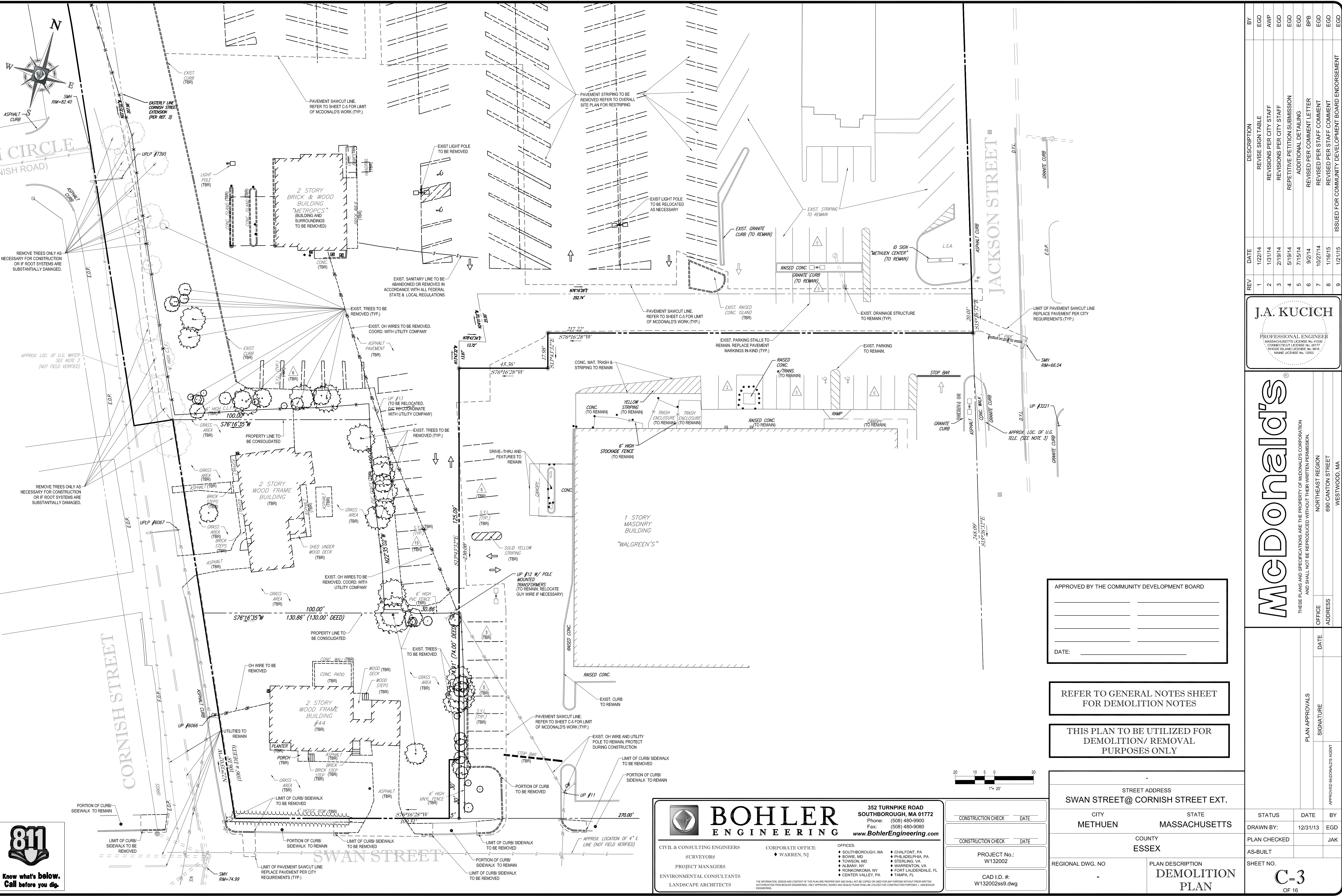
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CHALFONT, PA  
PHILADELPHIA, PA  
STERLING, VA  
WARRINGTON, VA  
FORT LAUDERDALE, FL  
TAMPA, FL

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|                    |                |
|--------------------|----------------|
| CONSTRUCTION CHECK | DATE           |
| CONSTRUCTION CHECK | DATE           |
| PROJECT No.:       | W132002        |
| CAD I.D. #:        | W132002ss9.dwg |

|   |                                     |
|---|-------------------------------------|
| STREET ADDRESS<br>SWAN STREET @ CORNISH STREET EXT. |                                     |
| CITY<br>METHUEN                                     | STATE<br>MASSACHUSETTS              |
| COUNTY<br>ESSEX                                     |                                     |
| REGIONAL DWG. NO<br>-                               | PLAN DESCRIPTION<br>DEMOLITION PLAN |

|              |          |     |
|--------------|----------|-----|
| STATUS       | DATE     | BY  |
| DRAWN BY:    | 12/31/13 | EGD |
| PLAN CHECKED |          | JAK |
| AS-BUILT     |          |     |
| SHEET NO.    |          |     |
| C-3          |          |     |
| OF 16        |          |     |

**J.A. KUCICH**

PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE NO. 41530  
CONNECTICUT LICENSE NO. 20177  
RHODE ISLAND LICENSE NO. 9618  
MAINE LICENSE NO. 12553

**McDonald's**

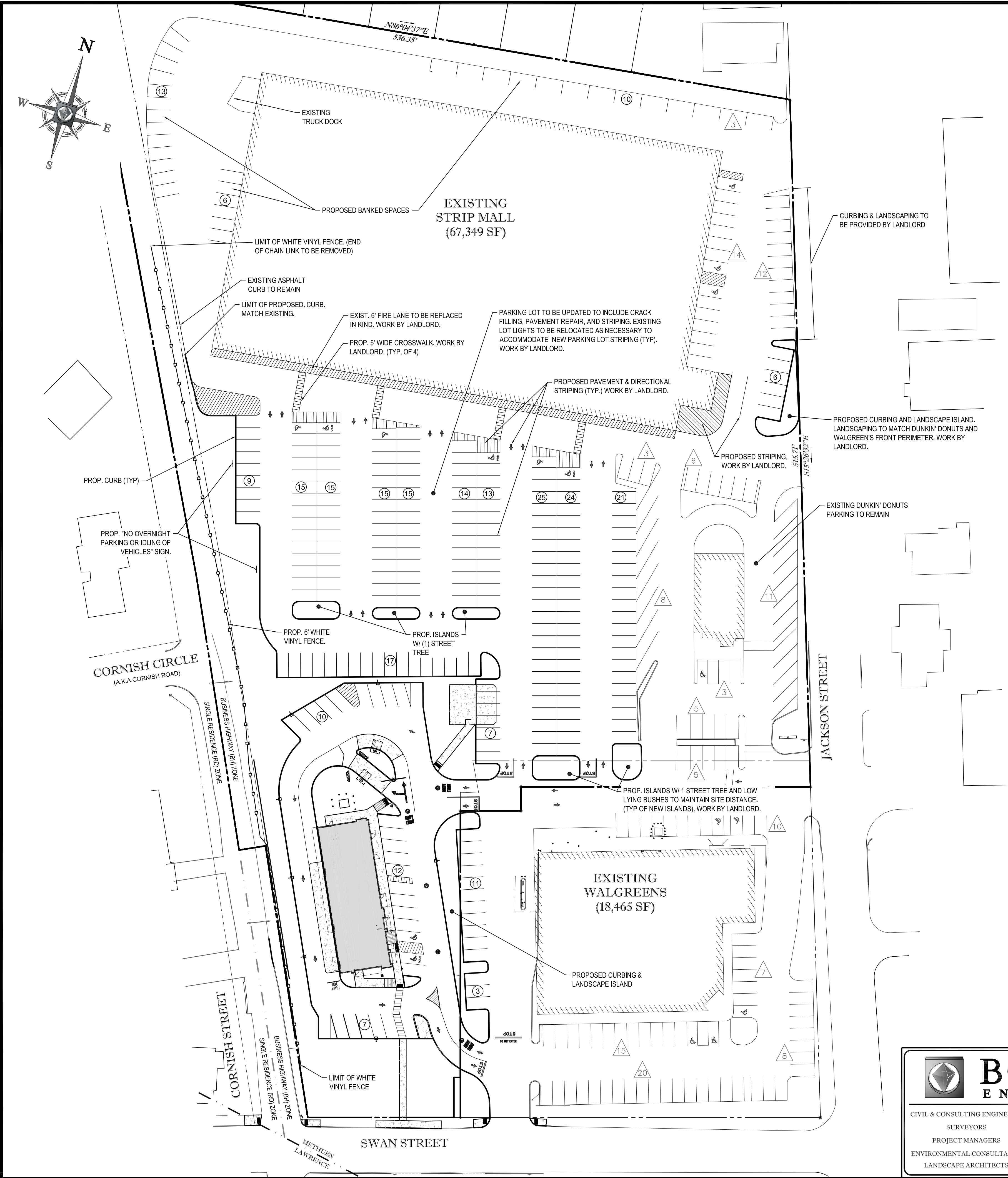
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OFFICE  
ADDRESS  
NORTHEAST REGION  
690 CANTON STREET  
WESTWOOD, MA

|                |      |                           |
|----------------|------|---------------------------|
| PLAN APPROVALS | DATE | APPROVED MCDONALD'S AGENT |
| SIGNATURE      |      |                           |

| REV | DATE     | DESCRIPTION  | BY  |
|-----|----------|--|-----|
| 1   | 1/22/14  | REVISE SIGN TABLE                                  | EGD |
| 2   | 1/31/14  | REVISIONS PER CITY STAFF                           | AWP |
| 3   | 2/19/14  | REVISIONS PER CITY STAFF                           | EGD |
| 4   | 5/19/14  | REPEITIVE PETITION SUBMISSION                      | EGD |
| 5   | 7/15/14  | ADDITIONAL DETAILING                               | EGD |
| 6   | 9/2/14   | REVISED PER COMMENT LETTER                         | BBP |
| 7   | 10/27/14 | REVISED PER STAFF COMMENT                          | EGD |
| 8   | 11/6/15  | REVISED PER STAFF COMMENT                          | EGD |
| 9   | 12/1/15  | ISSUED FOR COMMUNITY DEVELOPMENT BOARD ENDORSEMENT | EGD |





LAND USE / ZONING INFORMATION & NOTES

1. OWNER:  
METHUEN VENTURE LIMITED PARTNERSHIP  
C/O ALLEN ASSOCIATES PROPERTIES, INC.  
NEWTON CENTRE STREET, SUITE 403  
NEWTON CENTRE, MA 02459-0003
2. APPLICANT:  
MCDONALD'S USA, LLC  
C/O BOHLER ENGINEERING  
352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772
3. PARCEL:  
MAP: J14, PARCELS: 816-96-11, 816-96-11B, 816-96-11C  
SWAN STREET & CORNISH STREET EXTENSION  
CITY OF METHUEN  
ESSEX COUNTY, MA

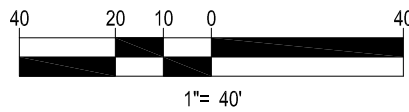
I CERTIFY THAT THIS PLAN HAS BEEN PREPARED  
IN CONFORMANCE WITH THE RULES AND  
REGULATIONS OF THE REGISTERS OF DEEDS:

| ZONING ANALYSIS TABLE             |                   |  |  |
|-----------------------------------|-------------------|--|--|
| ZONING DISTRICT                   |                   | BUSINESS HIGHWAY<br>(RESTAURANT USE REQUIRES SPECIAL PERMIT FROM ZBA)<br>(SPECIAL PERMIT FROM ZBA FOR DRIVE-THRU OPERATIONS AFTER 12AM)<br>(RESTAURANT W/ DRIVE-THRU USE REQUIRES SPECIAL PERMIT FROM CDB) |  |
| ZONE CRITERIA                     | REQUIRED          | EXISTING   | PROPOSED   |
| MINIMUM LOT AREA                  | 10,000 SF         | 301,513 SF   | NO CHANGE  |
| MINIMUM LOT WIDTH                 | 100-FT            | ±109.5-FT  | NO CHANGE  |
| MAX. BUILDING COVERAGE            | 35%               | ±26.5%   | ±24.6%   |
| MIN. SIDE SETBACK (McDONALD'S)    | 30-FT             | ±28.9-FT   | ±50.4-FT   |
| MIN. FRONT SETBACK (McDONALD'S)   | 25-FT<br>25-FT    | ±34.2-FT (SWAN STREET)<br>±14.2-FT (CORNISH STREET)  | ±108.1-FT (SWAN STREET)<br>±40.5-FT (CORNISH STREET) |
| MIN. REAR SETBACK (McDONALD'S)    | 30-FT             | N/A  | N/A  |
| MAX. BUILDING HEIGHT (McDONALD'S) | 40-FT / 3 STORIES | ±18-FT   | <25-FT / 1 STORY                                     |
| PARKING SPACES                    | 324               | 284  | 324 (1)  |

N/A - NOT APPLICABLE  
(1) - 29 OF THE TOTAL 324 PROPOSED PARKING SPACES ARE BANKED FOR FUTURE USE.

| OVERALL PARKING ANALYSIS TABLE |           |              |                              |              |              |              |                    |
|--------------------------------|-----------|--------------|------------------------------|--------------|--------------|--------------|--------------------|
| TENANT                         | SQ-FT     | SPACES REQ'D | # OF EMPLOYEES ON MAX. SHIFT | SPACES REQ'D | DINING SEATS | SPACES REQ'D | TOTAL SPACES REQ'D |
| BIG LOTS                       | 30,000 SF | 120.0        | 7                            | 3.5          | N/A          | 0            | 123.50             |
| PLANET FITNESS                 | 14,806 SF | 59.2         | 5                            | 2.5          | N/A          | 0            | 61.72              |
| FAMILY DOLLAR                  | 10,000 SF | 40.0         | 4                            | 2            | N/A          | 0            | 42.00              |
| NAPA AUTO PARTS                | 5,418 SF  | 21.67        | 4                            | 2            | N/A          | 0            | 23.67              |
| MCDONALD'S                     | 4,317 SF  | 0            | 10                           | 5            | 80           | 20           | 25                 |
| GENTLE DENTAL                  | 2,689 SF  | 10.76        | 10                           | 5            | N/A          | 0            | 15.76              |
| DUNKIN DONUTS                  | 2,400 SF  | 0            | 7                            | 3.5          | 22           | 5.5          | 9.00               |
| AUTO ER                        | 2,000 SF  | 8.0          | 2                            | 1            | N/A          | 0            | 9.00               |
| SUBWAY                         | 1,243 SF  | 0.0          | 5                            | 2.5          | 24           | 6            | 8.50               |
| H&R BLOCK                      | 1,193 SF  | 4.77         | 3                            | 1.5          | N/A          | 0            | 6.27               |
| TOTALS                         | 92,531 SF | -            | -                            | -            | -            | -            | 324.42             |

- △ EXISTING PARKING TO REMAIN  
⊕ PROPOSED PARKING



APPROVED BY THE COMMUNITY DEVELOPMENT BOARD

DATE: \_\_\_\_\_



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Fax: (508) 480-9080  
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CONSTRUCTION CHECK \_\_\_\_\_ DATE \_\_\_\_\_

CONSTRUCTION CHECK \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT No.:  
W132002

CAD I.D. #:  
W132002ss9.dwg

STREET ADDRESS  
SWAN STREET@ CORNISH STREET EXT.

CITY  
METHUEN

STATE  
MASSACHUSETTS

COUNTY  
ESSEX

REGIONAL DWG. NO  
-

PLAN DESCRIPTION  
**OVERALL  
SITE PLAN**

STATUS  
DRAWN BY:

DATE  
12/31/13

BY  
EGD

PLAN CHECKED

JAK

AS-BUILT

SHEET NO.

**C-4**

OF 16

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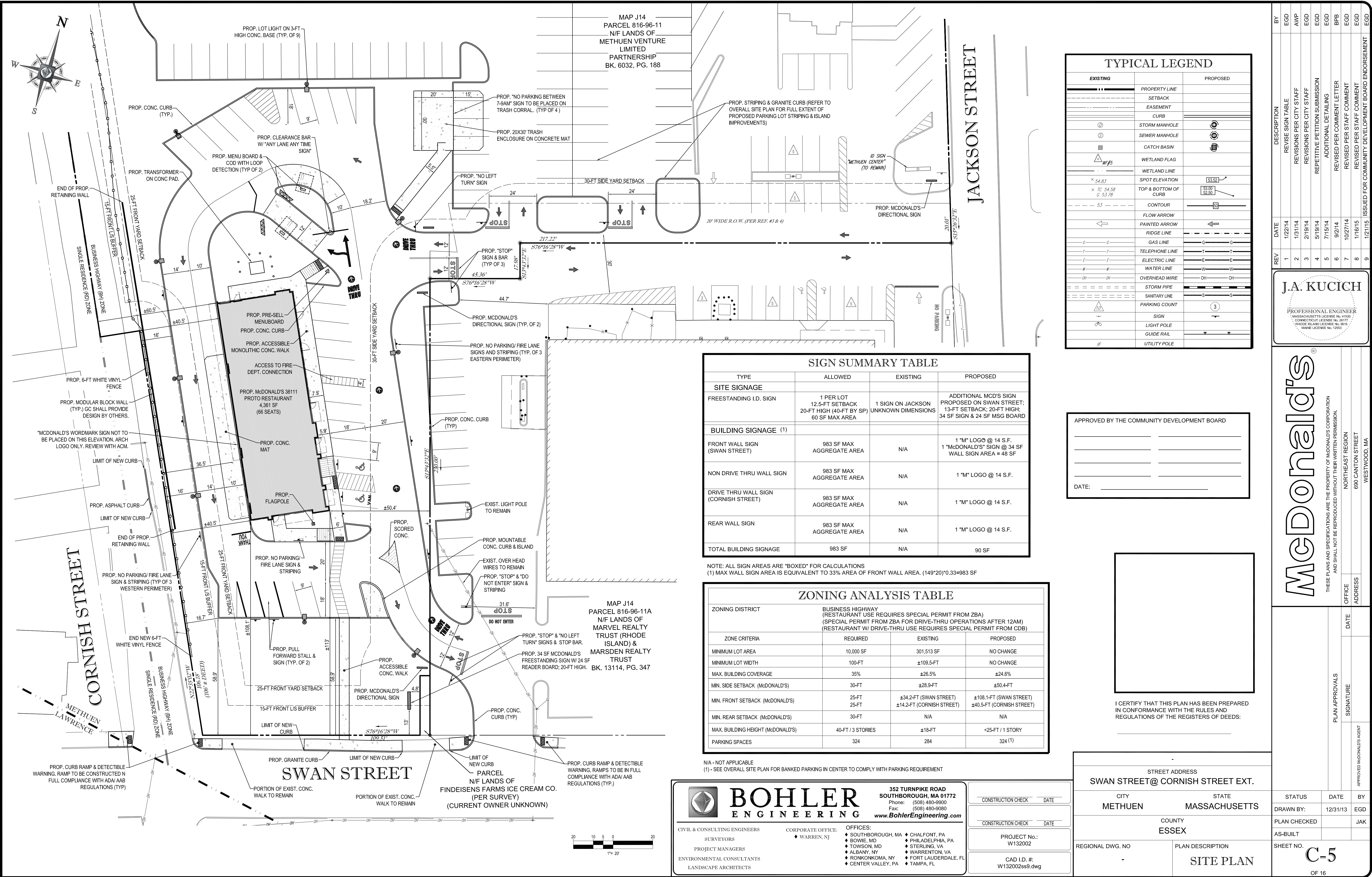
OFFICE  
NORTHEAST REGION  
680 CANTON STREET  
WESTWOOD, MA

**J.A. KUCICH**

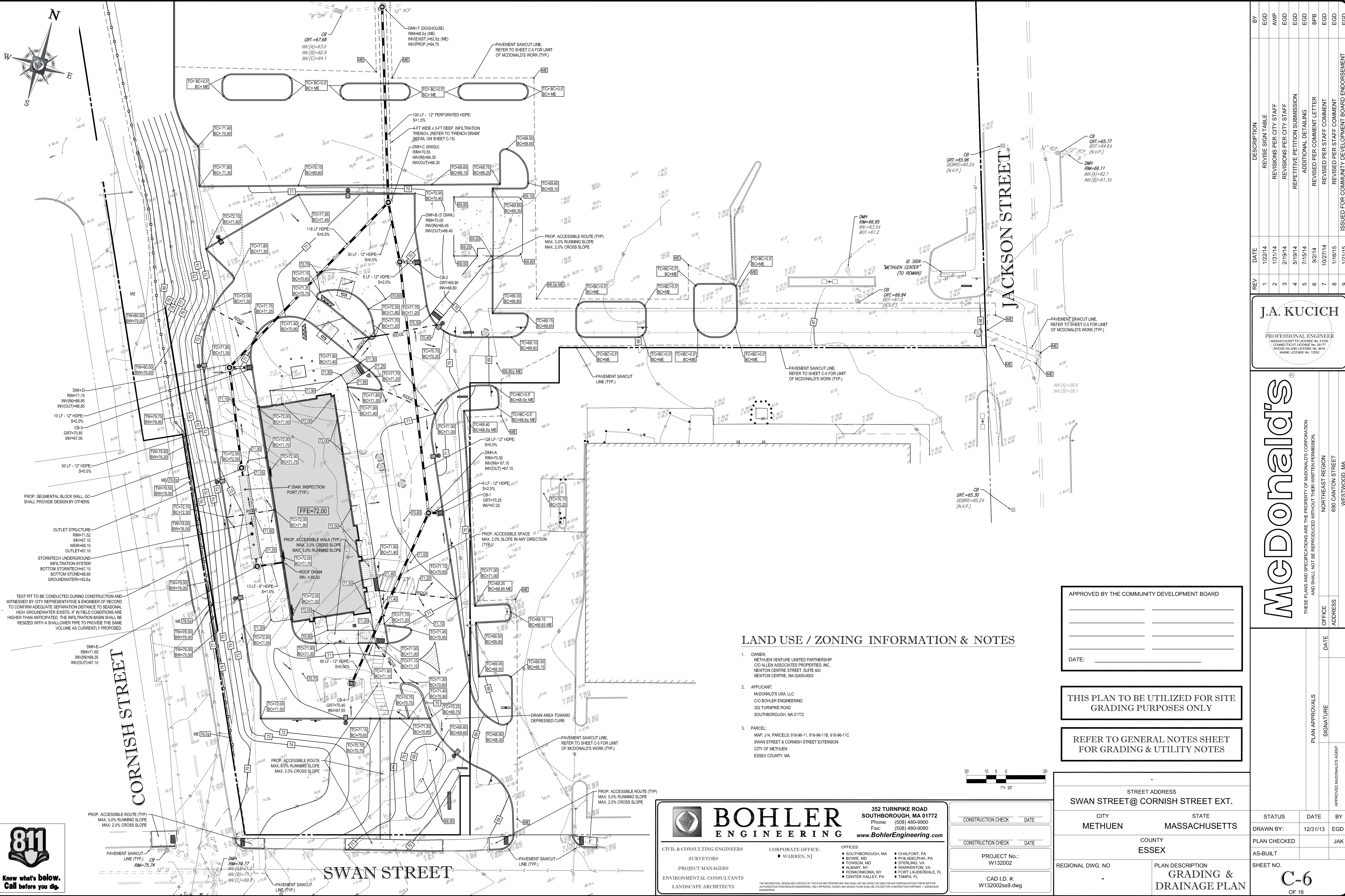
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CONNECTICUT LICENSE NO. 36177  
RHODE ISLAND LICENSE NO. 9616  
MAINE LICENSE NO. 12555

| BY  | DESCRIPTION  | DATE     | REV |
|-----|--|----------|-----|
| EGD | REVISE SIGN TABLE                                  | 1/22/14  | 1   |
| AMP | REVISIONS PER CITY STAFF                           | 1/31/14  | 2   |
| EGD | REVISIONS PER CITY STAFF                           | 2/19/14  | 3   |
| EGD | REPEITIVE PETITION SUBMISSION                      | 5/19/14  | 4   |
| EGD | ADDITIONAL DETAILING                               | 7/15/14  | 5   |
| BPB | REVISED PER COMMENT LETTER                         | 9/2/14   | 6   |
| EGD | REVISED PER STAFF COMMENT                          | 10/27/14 | 7   |
| EGD | REVISED PER STAFF COMMENT                          | 1/16/15  | 8   |
| EGD | ISSUED FOR COMMUNITY DEVELOPMENT BOARD ENDORSEMENT | 1/21/15  | 9   |







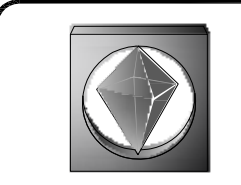




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APPROVED BY THE COMMUNITY DEVELOPMENT BOARD

DATE: \_\_\_\_\_

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

REFER TO GENERAL NOTES SHEET FOR GRADING & UTILITY NOTES

STREET ADDRESS  
SWAN STREET @ CORNISH STREET EXT.

CITY  
METHUEN

STATE  
MASSACHUSETTS

COUNTY  
ESSEX

REGIONAL DWG. NO  
-

PLAN DESCRIPTION  
GRADING & DRAINAGE PLAN

STATUS  
DRAWN BY: JAK

DATE  
12/31/13

BY  
EGD

PLAN CHECKED  
AS-BUILT

SHEET NO.  
C-6

OF 16

BY

EGD

AWP

EGD

EGD

EGD

BPB

EGD

EGD

DESCRIPTION

REVISION SIGN TABLE

REVISIONS PER CITY STAFF

REVISIONS PER CITY STAFF

REPETITIVE PETITION SUBMISSION

ADDITIONAL DETAILING

REVISED PER COMMENT LETTER

REVISED PER STAFF COMMENT

ISSUED FOR COMMUNITY DEVELOPMENT BOARD ENDORSEMENT

DATE

1/22/14

1/31/14

2/19/14

5/19/14

7/15/14

9/2/14

10/27/14

11/6/15

12/1/15

REV

1

2

3

4

5

6

7

8

9

J.A. KUCICH

PROFESSIONAL ENGINEER

MASSACHUSETTS LICENSE NO. 41530

CONNECTICUT LICENSE NO. 38177

RHODE ISLAND LICENSE NO. 9618

MAINE LICENSE NO. 12553

McDonald's

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NORTHEAST REGION

690 CANTON STREET

WESTWOOD, MA

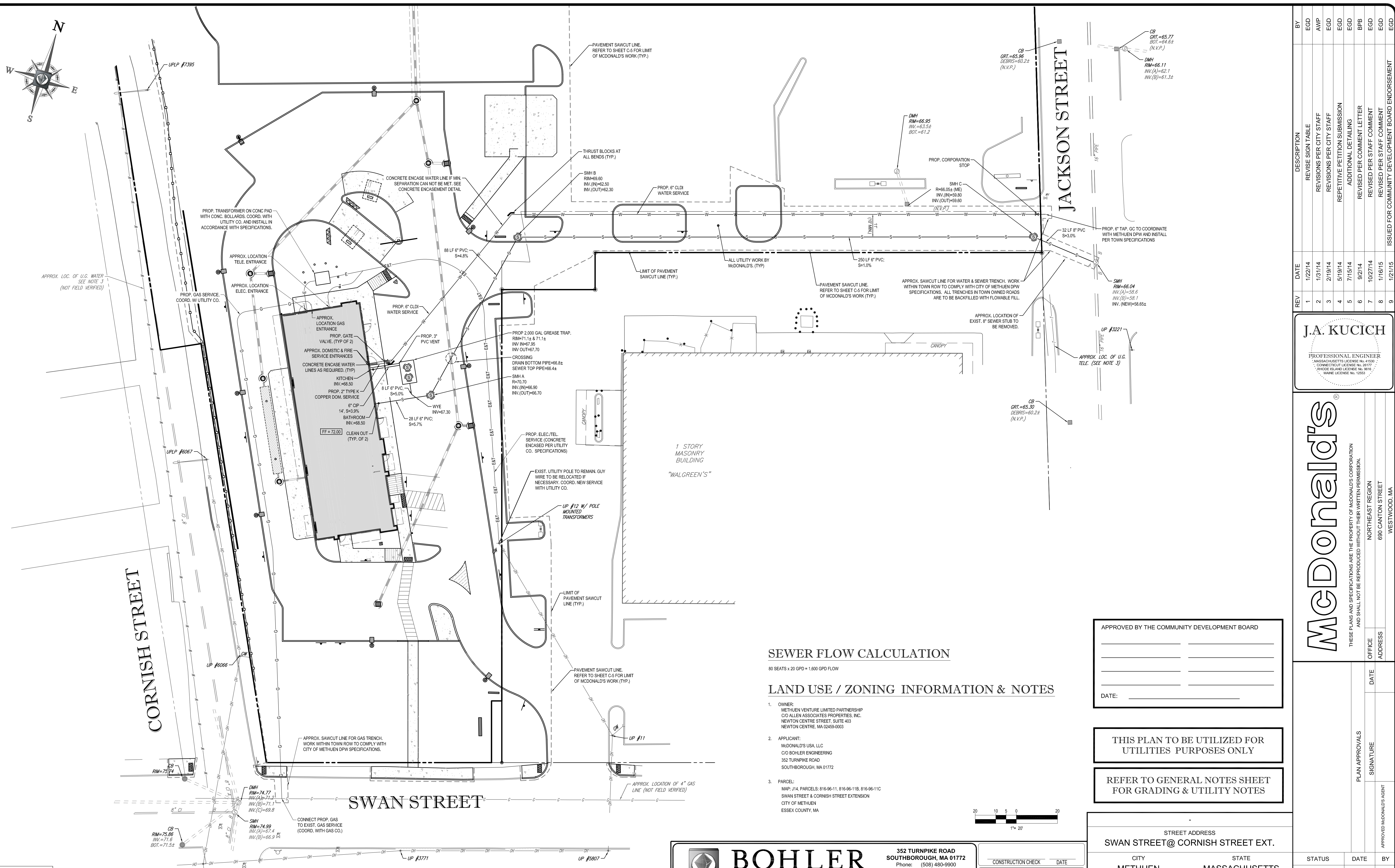
PLAN APPROVALS

SIGNATURE

DATE

APPROVED McDONALD'S AGENT





| STATUS                 |  | DATE     | BY  |
|------------------------|--|----------|-----|
| DRAWN BY:              |  | 12/31/13 | EGD |
| PLAN CHECKED           |  |          | JAK |
| AS-BUILT               |  |          |     |
| SHEET NO. C-7<br>OF 16 |  |          |     |

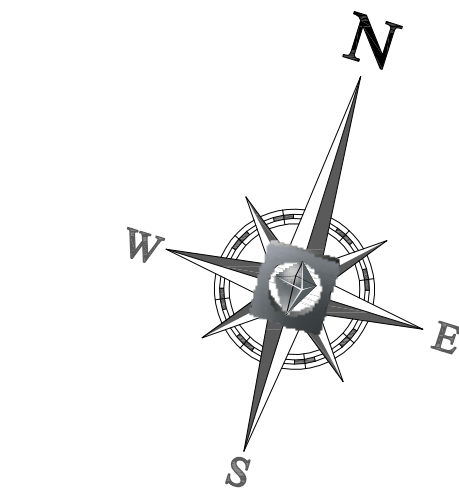
| PLAN APPROVALS |         | DATE                              | BY |
|----------------|---------|-----------------------------------|----|
| SIGNATURE      | OFFICE  | NORTHEAST REGION                  |    |
|                | ADDRESS | 690 CANTON STREET<br>WESTWOOD, MA |    |

| J.A. KUCICH   |          |  |     |
|---|----------|--|-----|
| PROFESSIONAL ENGINEER<br>MASSACHUSETTS LICENSE NO. 41500<br>CONNECTICUT LICENSE NO. 26177<br>RHODE ISLAND LICENSE NO. 5816<br>MAINE LICENSE NO. 12553 |          |  |     |
| REV   | DATE     | DESCRIPTION  | BY  |
| 1   | 1/22/14  | REVISE SIGN TABLE                                  | EGD |
| 2   | 1/31/14  | REVISIONS PER CITY STAFF                           | AWP |
| 3   | 2/19/14  | REVISIONS PER CITY STAFF                           | EGD |
| 4   | 5/19/14  | REPETITIVE PETITION SUBMISSION                     | EGD |
| 5   | 7/15/14  | ADDITIONAL DETAILING                               | EGD |
| 6   | 9/2/14   | REVISED PER COMMENT LETTER                         | BPB |
| 7   | 10/27/14 | REVISED PER STAFF COMMENT                          | EGD |
| 8   | 11/6/15  | REVISED PER STAFF COMMENT                          | EGD |
| 9   | 1/27/15  | ISSUED FOR COMMUNITY DEVELOPMENT BOARD ENDORSEMENT | EGD |



**Know what's below.  
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CORNISH CIRCLE  
(A.K.A. CORNISH ROAD)

CORNISH STREET

JACKSON STREET

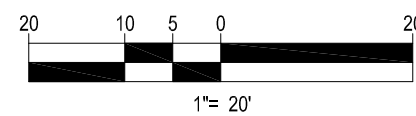
SWAN STREET

AREA OF DISTURBANCE=  
68,368 SF (1.56 ACRES)

1 STORY  
MASONRY  
BUILDING  
"WALGREEN'S"

### LAND USE / ZONING INFORMATION & NOTES

- OWNER:  
METHUEN VENTURE LIMITED PARTNERSHIP  
C/O ALLEN ASSOCIATES PROPERTIES, INC.  
NEWTON CENTRE STREET, SUITE 403  
NEWTON CENTRE, MA 02459-0003
- APPLICANT:  
MCDONALD'S USA, LLC  
C/O BOHLER ENGINEERING  
352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772
- PARCEL:  
MAP: J14, PARCELS: 816-96-11, 816-96-11B, 816-96-11C  
SWAN STREET & CORNISH STREET EXTENSION  
CITY OF METHUEN  
ESSEX COUNTY, MA



**BOHLER**  
ENGINEERING

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900  
Fax: (508) 480-9080  
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APPROVED BY THE COMMUNITY DEVELOPMENT BOARD

DATE: \_\_\_\_\_

THIS PLAN TO BE UTILIZED FOR SITE  
SOIL AND EROSION CONTROL  
PURPOSES ONLY

REFER TO SOIL EROSION CONTROL  
NOTES & DETAIL SHEET FOR EROSION  
NOTES AND DETAILS

STREET ADDRESS  
SWAN STREET@ CORNISH STREET EXT.

CITY  
METHUEN

STATE  
MASSACHUSETTS

COUNTY  
ESSEX

REGIONAL DWG. NO

PLAN DESCRIPTION  
SOIL EROSION  
& SEDIMENT  
CONTROL PLAN

| BY  | DESCRIPTION  | DATE     | REV |
|-----|--|----------|-----|
| EGD | REVISE SIGN TABLE                                  | 1/22/14  | 1   |
| AWP | REVISIONS PER CITY STAFF                           | 1/31/14  | 2   |
| EGD | REVISIONS PER CITY STAFF                           | 2/19/14  | 3   |
| EGD | REPETITIVE PETITION SUBMISSION                     | 5/19/14  | 4   |
| EGD | ADDITIONAL DETAILING                               | 7/15/14  | 5   |
| BBP | REVISED PER COMMENT LETTER                         | 9/2/14   | 6   |
| EGD | REVISED PER STAFF COMMENT                          | 10/27/14 | 7   |
| EGD | REVISED PER STAFF COMMENT                          | 11/6/15  | 8   |
| EGD | ISSUED FOR COMMUNITY DEVELOPMENT BOARD ENDORSEMENT | 12/1/15  | 9   |

**J.A. KUCICH**

PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE NO. 41530  
CONNECTICUT LICENSE NO. 26177  
RHODE ISLAND LICENSE NO. 9618  
MAINE LICENSE NO. 12553

**McDonald's**

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OFFICE  
ADDRESS  
DATE  
SIGNATURE  
APPROVED MCDONALD'S AGENT

PLAN APPROVALS  
DATE  
SIGNATURE  
APPROVED MCDONALD'S AGENT

NORTHEAST REGION  
690 CANTON STREET  
WESTWOOD, MA

| STATUS       | DATE     | BY  |
|--------------|----------|-----|
| DRAWN BY:    | 12/31/13 | EGD |
| PLAN CHECKED |          | JAK |
| AS-BUILT     |          |     |
| SHEET NO.    |          |     |

**C-8**

OF 16



Know what's below.  
Call before you dig.



EROSION & SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS).
3. SEDIMENT BARRIERS (SILT FENCE, HAY BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
4. INSTALL SILT FENCE AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILT FENCE DETAIL FOR PROPER INSTALLATION. SILT FENCE WILL REMAIN IN PLACE PER NOTE #5.
5. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF.
6. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).
7. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED IN WELLS) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
8. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS.
10. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
- 10.1. SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
- 10.2. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 LB PER ACRE OR 18.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SF).
- 10.3. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1,000 SF LAWN QUALITY SOO MAY BE SUBSTITUTED FOR SEED.
- 10.4. HAY MULCH AT THE RATE OF 70-90 LBS PER 1,000 SF. A HYDRO-APPLICATION OF WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS WILL BE USED ON HAY MULCH FOR WIND CONTROL.
11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
12. WETLANDS WILL BE PROTECTED WHAYBALES AND/OR SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
13. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
14. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED.

MULCH

| LOCATION<br>PROTECT AREA  | MULCH<br>STRAW OR HAY                                       | RATE (1,000 SF)<br>100 POUNDS |
|---|---|-------------------------------|
| WINDY AREA  | SHREDDED OR CHOPPED CORNSTALKS<br>STRAW OR HAY (ANCHORED)   | 185-275 POUNDS<br>100 POUNDS  |
| MODERATE TO HIGH<br>VELOCITY AREAS OR<br>STEEP SLOPES<br>GREATER THAN 3:1 | JUTE MESH OR EXCELSIOR MAT                                  | AS REQUIRED                   |
| GREATER THAN 3:1  | (REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT) |                               |

\* A HYDRO-APPLICATION OF WOOD, OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS SHALL BE USED ON HAY MULCH FOR WIND CONTROL.

MULCH ANCHORING  
ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD.BLOCK); MULCH NETTING (AS PER MANUFACTURER); WOOD CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERVATED STRAIGHT DISK. WETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

EROSION CONTROL NOTES DURING WINTER CONSTRUCTION

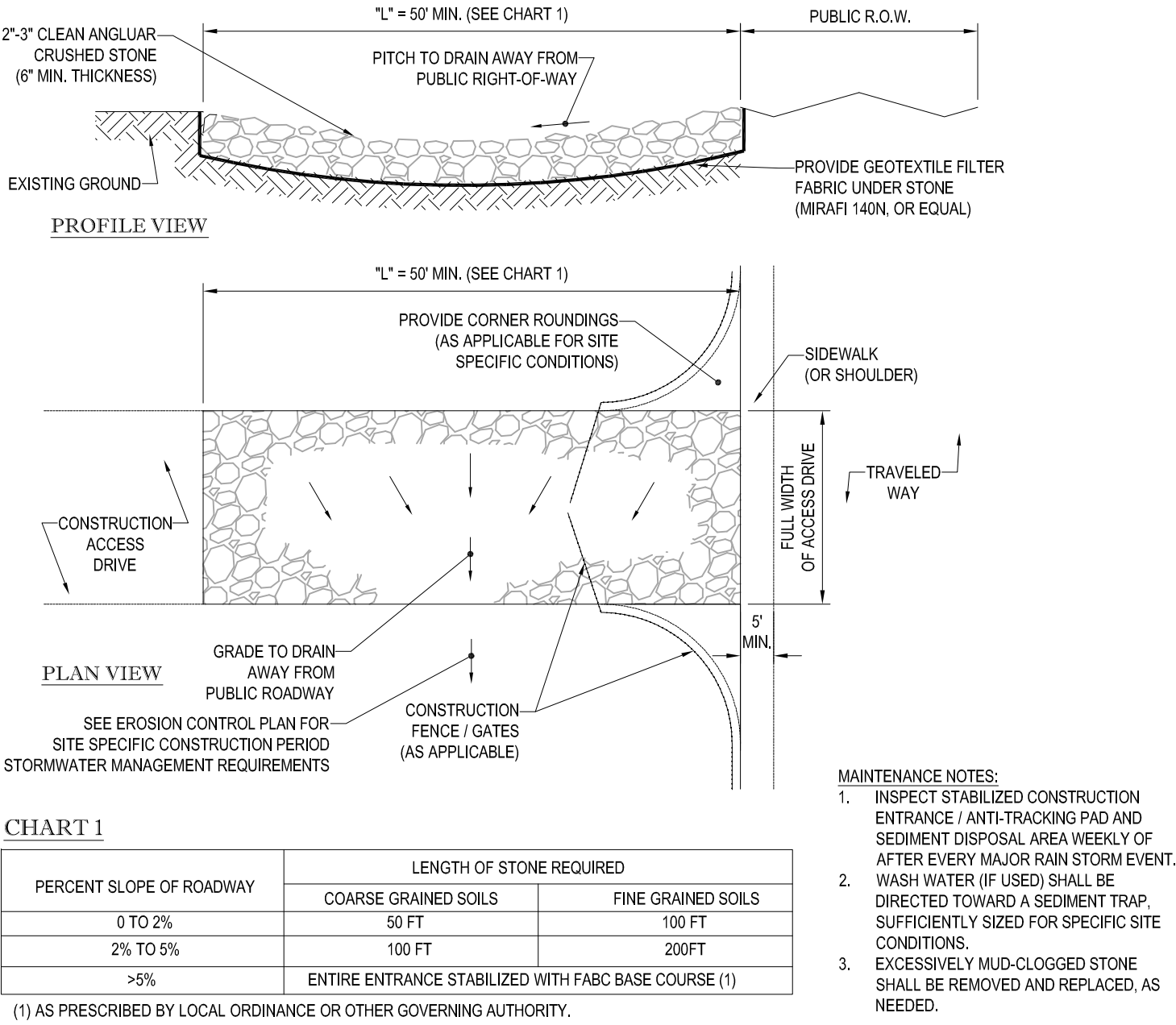
1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
2. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
3. EXPOSED AREA SHOULD BE LIMITED TO THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
4. CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 200 - 300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
7. MULCHING REQUIREMENTS:
- 7.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
- 7.2. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 5% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
- 7.3. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
8. AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORKING DAY.
9. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
10. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
11. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.



CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:

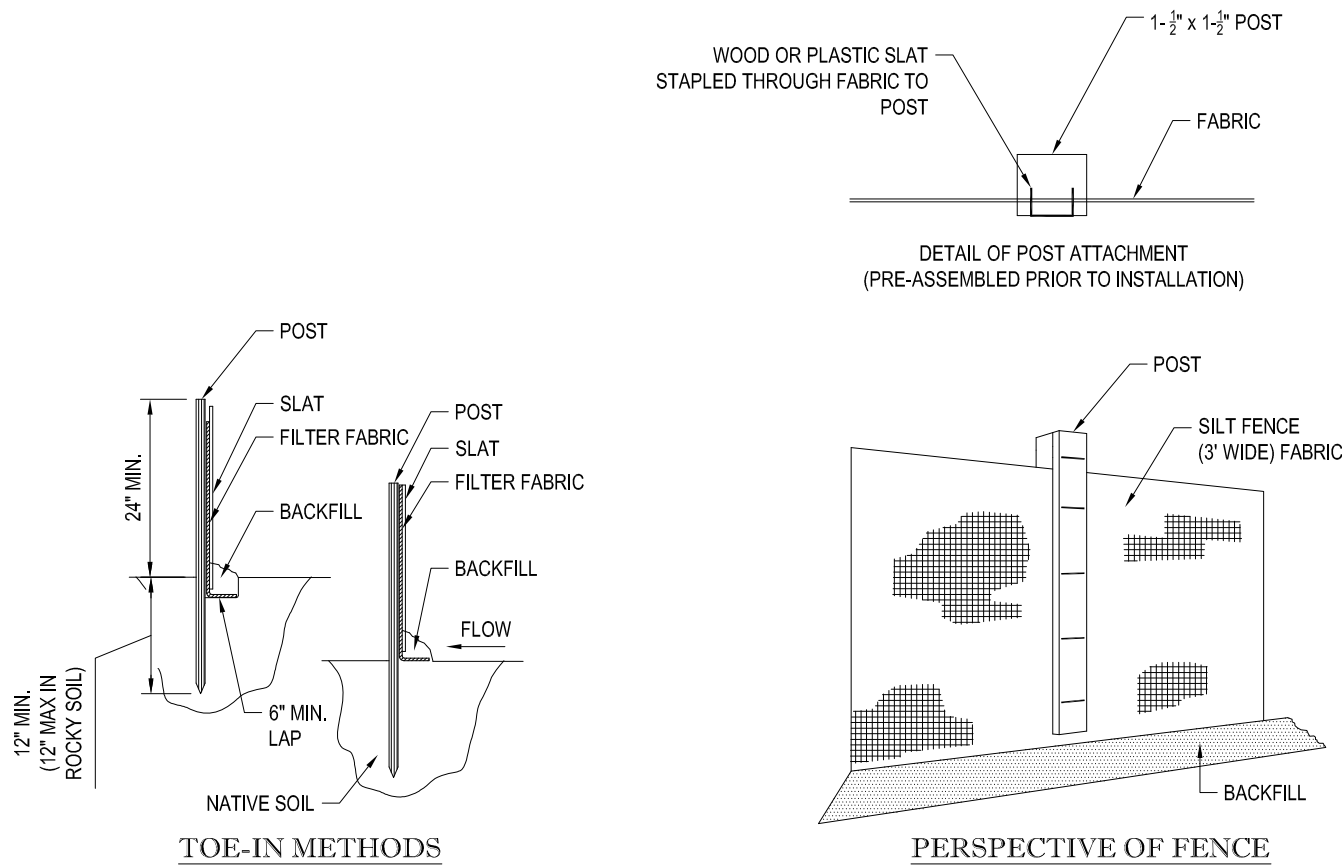
- INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN)
- INSTALLATION OF EROSION CONTROL BARRIER (HAYBALES AND SILT FENCE) (AS SHOWN)
- INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN)
- DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN)
- DEMOLITION OF EXISTING SITE PAVEMENT AND AVENUES (SEE DEMOLITION PLAN)
- CLEARING AND GRUBBING
- INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS
- EARTHWORK AND EXCAVATION/FILLING AS NECESSARY
- CONSTRUCTION OF UTILITIES
- STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING
- INSTALLATION OF INLET PROTECTION ON ON-SITE UTILITIES (AS SHOWN)
- CONSTRUCTION OF BUILDINGS
- CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
- SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
- FINAL GRADING OF ALL SLOPED AREAS
- PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED REQUIRED.
- REMOVAL OF THE TEMPORARY SEDIMENT BASINS
- PAVE PARKING LOT
- LANDSCAPING PER LANDSCAPING PLAN
- REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER.



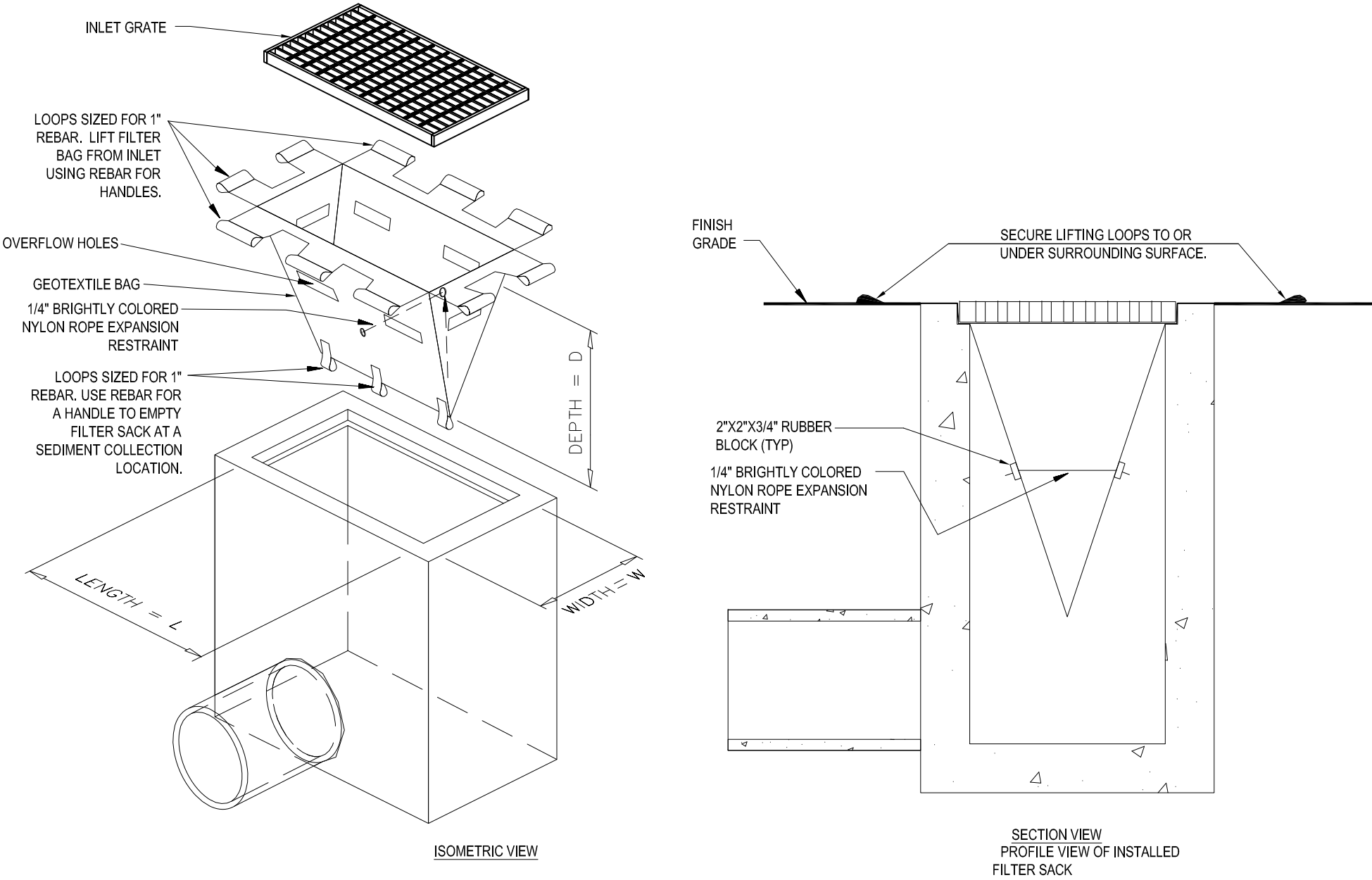
STABILIZED CONSTRUCTION ENTRANCE

STRAW BALE DETAIL

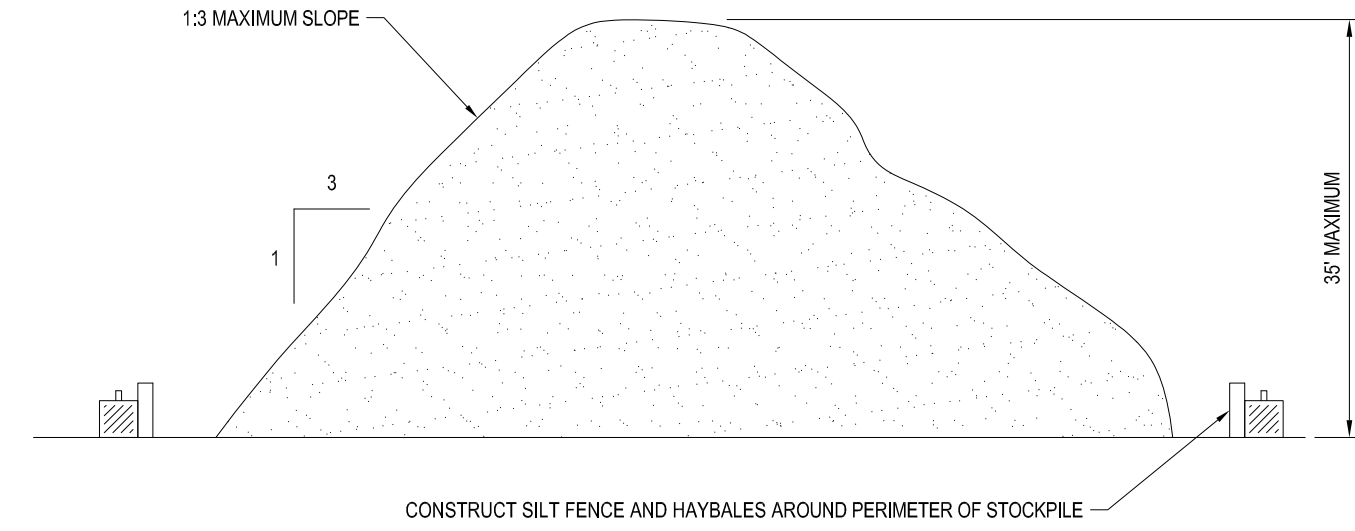
- INSTALLATION:
1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF EROSION CONTROL OF THE SITE.
  2. UNROLL SILTATION FENCE AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM FLOW DIRECTION).
  3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS LAYING ACROSS THE TRENCH BOTTOM.
  4. LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING FABRIC FLAP ON UNDISTURBED GROUND AND PILING & TAMP-ING FILL AT THE BASE.



TYP. SILTATION FENCE DETAIL



FILTER SACKS (GRADED INLETS)



TEMPORARY STOCKPILE DETAIL

**BOHLER  
ENGINEERING**

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900  
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♦ TAMPA, FL

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|                    |                |
|--------------------|----------------|
| CONSTRUCTION CHECK | DATE           |
| CONSTRUCTION CHECK | DATE           |
| PROJECT No.:       | W132002        |
| CAD I.D. #:        | W132002ss9.dwg |

APPROVED BY THE COMMUNITY DEVELOPMENT BOARD

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DATE: \_\_\_\_\_

|  |  |
|--|--|
| STREET ADDRESS<br>SWAN STREET@ CORNISH STREET EXT. |  |
| CITY<br>METHUEN                                    | STATE<br>MASSACHUSETTS                                   |
| COUNTY<br>ESSEX                                    |  |
| REGIONAL DWG. NO<br>-                              | PLAN DESCRIPTION<br>SOIL EROSION CONTROL NOTES & DETAILS |

| BY  | DESCRIPTION  | DATE     | REV |
|-----|--|----------|-----|
| EGD | REVISION SIGN TABLE                                | 1/22/14  | 1   |
| AWP | REVISIONS PER CITY STAFF                           | 1/31/14  | 2   |
| EGD | REVISIONS PER CITY STAFF                           | 2/19/14  | 3   |
| EGD | REPETITIVE PETITION SUBMISSION                     | 5/19/14  | 4   |
| EGD | ADDITIONAL DETAILING                               | 7/15/14  | 5   |
| BBP | REVISED PER COMMENT LETTER                         | 9/2/14   | 6   |
| EGD | REVISED PER STAFF COMMENT                          | 10/27/14 | 7   |
| EGD | REVISED PER STAFF COMMENT                          | 11/6/15  | 8   |
| EGD | ISSUED FOR COMMUNITY DEVELOPMENT BOARD ENDORSEMENT | 12/1/15  | 9   |

**J.A. KUCICH**  
PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE NO. 41303  
CONNECTICUT LICENSE NO. 34717  
RHODE ISLAND LICENSE NO. 9618  
MAINE LICENSE NO. 12303

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NORTHEAST REGION  
680 CANTON STREET  
WESTWOOD, MA

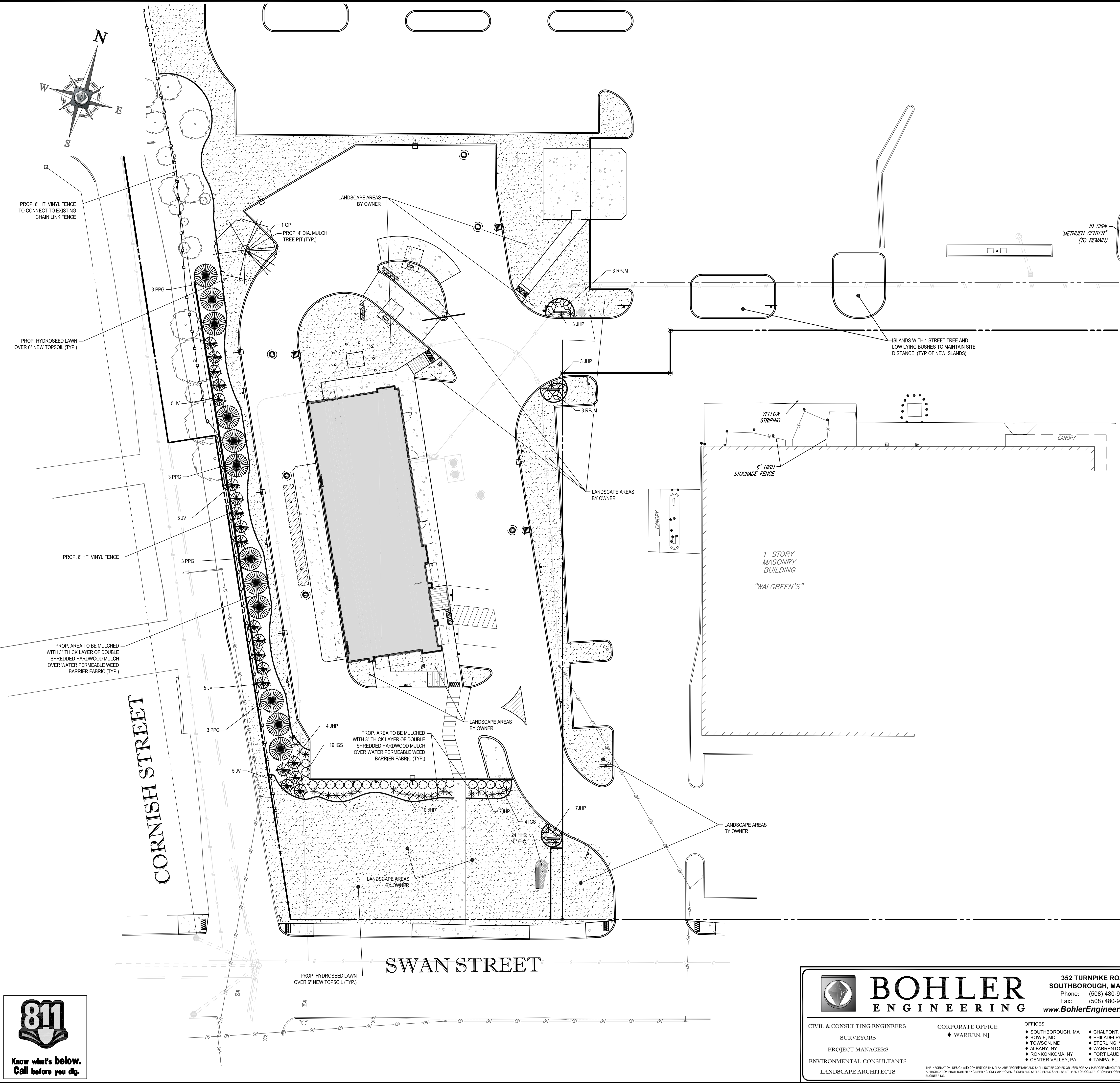
|      |                |
|------|----------------|
| DATE | OFFICE ADDRESS |
| DATE | ADDRESS        |

APPROVED McDONALD'S AGENT

| STATUS       | DATE     | BY  |
|--------------|----------|-----|
| DRAWN BY:    | 12/31/13 | EGD |
| PLAN CHECKED |          | JAK |
| AS-BUILT     |          |     |
| SHEET NO.    |          |     |

**C-9**  
OF 16





| LANDSCAPE SCHEDULE   |     |                                |                          |               |           |
|--|-----|--------------------------------|--------------------------|---------------|-----------|
| KEY  | QTY | BOTANICAL NAME                 | COMMON NAME              | SIZE          | REMARKS   |
| SHADE TREE   |     |                                |                          |               |           |
| QP   | 1   | QUERCUS PALUSTRIS              | PIN OAK                  | 2 1/2-3" CAL. | B+B       |
| EVERGREEN TREE   |     |                                |                          |               |           |
| JV   | 20  | JUNIPERUS VIRGINIANA           | EASTERN RED CEDAR        | 8-10"         | B+B       |
| PPG  | 12  | PICEA PUNGENS GLAUCA           | COLORADO BLUE SPRUCE     | 7-8"          | B+B       |
|  | 32  |                                |                          |               |           |
| EVERGREEN SHRUB  |     |                                |                          |               |           |
| IGS  | 23  | ILEX GLABRA 'SHAMROCK'         | SHAMROCK INK BERRY HOLLY | 24-30"        | #5 CAN    |
| JHP  | 41  | JUNIPERUS HORIZONTALIS PLUMOSA | ANDORRA JUNIPER          | 15-18" SPRD.  | #3 CAN    |
| RPJM   | 6   | RHOODENDRON CAROLINIANA        | PJM RHOODODENDRON        | 24"-30"       | B+B       |
|  | 70  |                                |                          |               |           |
| PERENNIAL  |     |                                |                          |               |           |
| HHR  | 24  | HEMEROCALLIS 'HAPPY RETURNS'   | LIGHT YELLOW DAYLILY     | 1 GAL.        | CONTAINER |
| NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE. |     |                                |                          |               |           |

| CITY OF METHUEN LANDSCAPE REQUIREMENTS  |  |          |                       |
|---|--|----------|-----------------------|
| SECTION OF BYLAW  | DESCRIPTION  | REQUIRED | PROPOSED              |
| SECTION VIII.B.5.b  | INTERIOR PARKING LOT:<br>AT LEAST 5% SHALL BE PLANTED WITH SHADE TREES AT 1 TREE PER 2000 SQUARE FEET OF PARKING AREA.<br><br>14,242 S.F. OF PARKING AREA / 2000 S.F. = 7 REQUIRED TREES | 7 TREES  | 33 TREES <sup>1</sup> |
| SECTION VIII.B.5.b  | SCREENING:<br>ANY YARD IN A BH DISTRICT WHICH ADJOINS A LOT IN AN RR OR R DISTRICT SHALL BE SCREENED PER "BUFFER SCREEN" DEFINITION.   | YES      | YES                   |
| <sup>1</sup> TREES ADDED TO PERIMETER OF SITE TO PROVED A VISUAL BUFFER TO RESIDENTIAL AREA AND AVOID OVERHEAD POWER LINES. |  |          |                       |

LAND USE / ZONING INFORMATION & NOTES

- OWNER:  
METHUEN VENTURE LIMITED PARTNERSHIP  
C/O ALLEN ASSOCIATES PROPERTIES, INC.  
NEWTON CENTRE STREET, SUITE 403  
NEWTON CENTRE, MA 02459-0003
- APPLICANT:  
MCDONALD'S USA, LLC  
C/O BOHLER ENGINEERING  
352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772
- PARCEL:  
MAP 2/14, PARCELS: 816-96-11, 816-96-11B, 816-96-11C  
SWAN STREET & CORNISH STREET EXTENSION  
CITY OF METHUEN  
ESSEX COUNTY, MA

APPROVED BY THE COMMUNITY DEVELOPMENT BOARD

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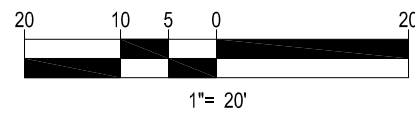
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DATE: \_\_\_\_\_

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

REFER LANDSCAPE NOTES & DETAILS SHEET FOR LANDSCAPE NOTES AND DETAILS



|                    |                |
|--------------------|----------------|
| CONSTRUCTION CHECK | DATE           |
| CONSTRUCTION CHECK | DATE           |
| PROJECT No.:       | W132002        |
| CAD I.D. #:        | W132002ss9.dwg |

|  |                                    |
|--|------------------------------------|
| STREET ADDRESS<br>SWAN STREET@ CORNISH STREET EXT. |                                    |
| CITY<br>METHUEN                                    | STATE<br>MASSACHUSETTS             |
| COUNTY<br>ESSEX                                    |                                    |
| REGIONAL DWG. NO<br>-                              | PLAN DESCRIPTION<br>LANDSCAPE PLAN |

| BY          | EGD                 | AWP                      | EGD                      | EGD                            | BPB                  | EGD                        | EGD                       | EGD  |
|-------------|---------------------|--------------------------|--------------------------|--------------------------------|----------------------|----------------------------|---------------------------|--|
| DESCRIPTION | REVISION SIGN TABLE | REVISIONS PER CITY STAFF | REVISIONS PER CITY STAFF | REPETITIVE PETITION SUBMISSION | ADDITIONAL DETAILING | REVISED PER COMMENT LETTER | REVISED PER STAFF COMMENT | ISSUED FOR COMMUNITY DEVELOPMENT BOARD ENDORSEMENT |
| DATE        | 1/22/14             | 1/31/14                  | 2/19/14                  | 5/19/14                        | 7/15/14              | 9/2/14                     | 11/6/15                   | 12/1/15  |
| REV         | 1                   | 2                        | 3                        | 4                              | 5                    | 6                          | 7                         | 9  |

M.J. MRVA

REGISTERED LANDSCAPE ARCHITECT

MASSACHUSETTS No. 1217  
RHODE ISLAND No. 419

**McDonald's**

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF MCDONALD'S CORPORATION AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

OFFICE ADDRESS  
NORTHEAST REGION  
690 CANTON STREET  
WESTWOOD, MA

|                           |      |    |
|---------------------------|------|----|
| PLAN APPROVALS            | DATE | BY |
| SIGNATURE                 |      |    |
| APPROVED MCDONALD'S AGENT |      |    |

|              |          |     |
|--------------|----------|-----|
| STATUS       | DATE     | BY  |
| DRAWN BY:    | 12/31/13 | EGD |
| PLAN CHECKED |          | JAK |
| AS-BUILT     |          |     |
| SHEET NO.    |          |     |

**C-10**  
OF 16



**BOHLER ENGINEERING**

CIVIL & CONSULTING ENGINEERS  
SURVEYORS  
PROJECT MANAGERS  
ENVIRONMENTAL CONSULTANTS  
LANDSCAPE ARCHITECTS

CORPORATE OFFICE:  
WARREN, NJ

OFFICES:  
SOUTHBOROUGH, MA  
BOWIE, MD  
TOWSON, MD  
ALBANY, NY  
RONKONKOMA, NY  
CENTER VALLEY, PA  
CHALFONT, PA  
PHILADELPHIA, PA  
STERLING, VA  
WASHINGTON, VA  
FORT LAUDERDALE, FL  
TAMPA, FL

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900  
Fax: (508) 480-9080  
[www.BohlerEngineering.com](http://www.BohlerEngineering.com)

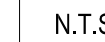
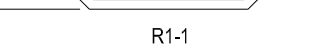
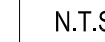










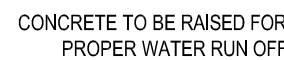


OF 16







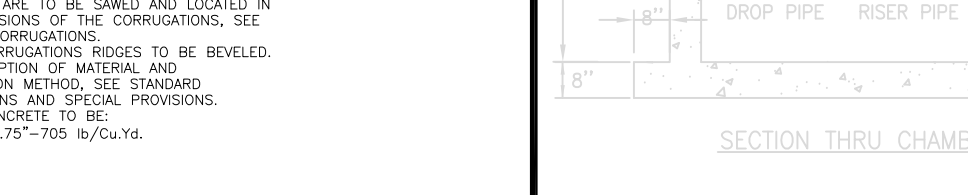


THE DEPTH OF THE GRAVEL IS TO BE SUCH THAT ITS BOTTOM LINE MEETS THE BOTTOM OF THE GRAVEL LIKE OF THE CONTIGUOUS PAVEMENT

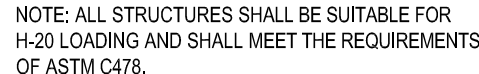
NOTES:

1. CONTRACTION JOINTS ARE TO BE SPACED AT A MAXIMUM OF 20' APART
2. THE JOINTS ARE TO BE SAWED AND LOCATED IN THE DEPRESSIONS OF THE CORRUGATIONS, SEE DETAIL OF CORRUGATIONS.
3. END OF CORRUGATIONS RIDGES TO BE BEVELED
4. FOR DESCRIPTION OF MATERIAL AND CONSTRUCTION METHOD, SEE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
5. SCORED CONCRETE TO BE:  
5,000 psi - 0.75" - 705 lb/Cu.Yd.



- 
1. CONTRACTION JOINTS ARE TO BE SPACED AT A MAXIMUM OF 25'.
2. THE JOINTS ARE TO BE SAVED AND LOCATED IN THE DEPRESSIONS OF THE CORRUGATIONS. SEE THE DETAIL OF CORRUGATIONS.
3. END OF CORRUGATIONS SHOULD BE REVEALED.
4. FOR DESCRIPTION OF MATERIAL AND CONSTRUCTION METHOD, SEE STANDARD SPECIFICATIONS OFFICIAL PROVISIONS.
5. SLOPED CONCRETE TO BE:  
5,000 psi-0.75" - 705 #/Cu.Yd.
- SECTION THRU CHAMBER
- NOTE:
1. THE USE OF FLEXIBLE CONNECTIONS IS RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
  2. THE COVER SHOULD BE POSITIONED OVER THE 24" Ø OUTLET RISER PIPE AND THE 8" Ø AIR PORT.
  3. THE STORMCATCHER SYSTEM IS PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: #4985148, #4985151, #5725750, #5731115, #5848181, #6086760 AND #6371690.
  4. CONTRACTOR TO PROVIDE CEMENT TO SET THE UNIT (HEAVIEST SECTION WEIGHS 5.9 TONS).

**NOTE**



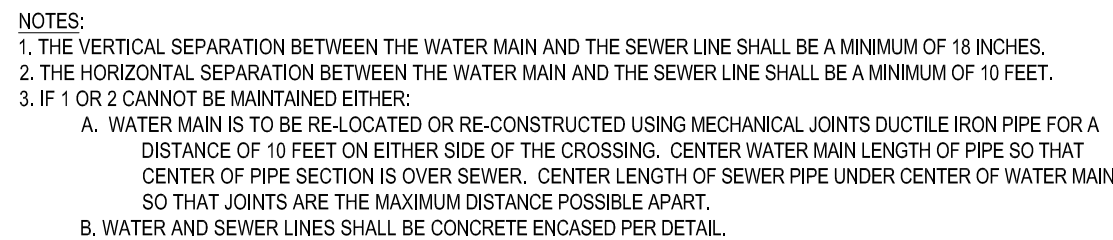
**J.A. KUCICH**  
PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE No. 41530  
CONNECTICUT LICENSE No. 26177  
RHODE ISLAND LICENSE No. 9816  
MAINE LICENSE No. 12553

# McDonald's

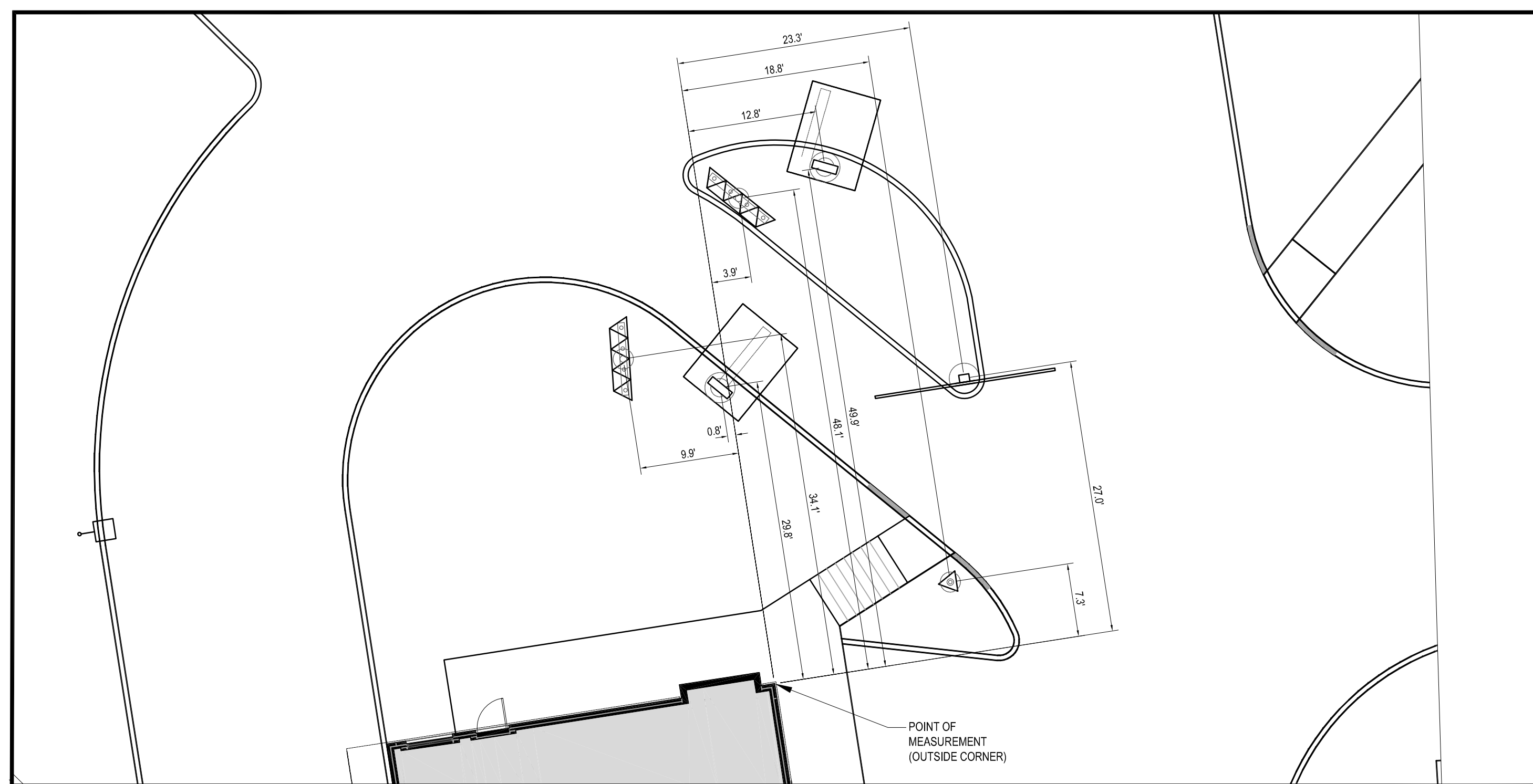
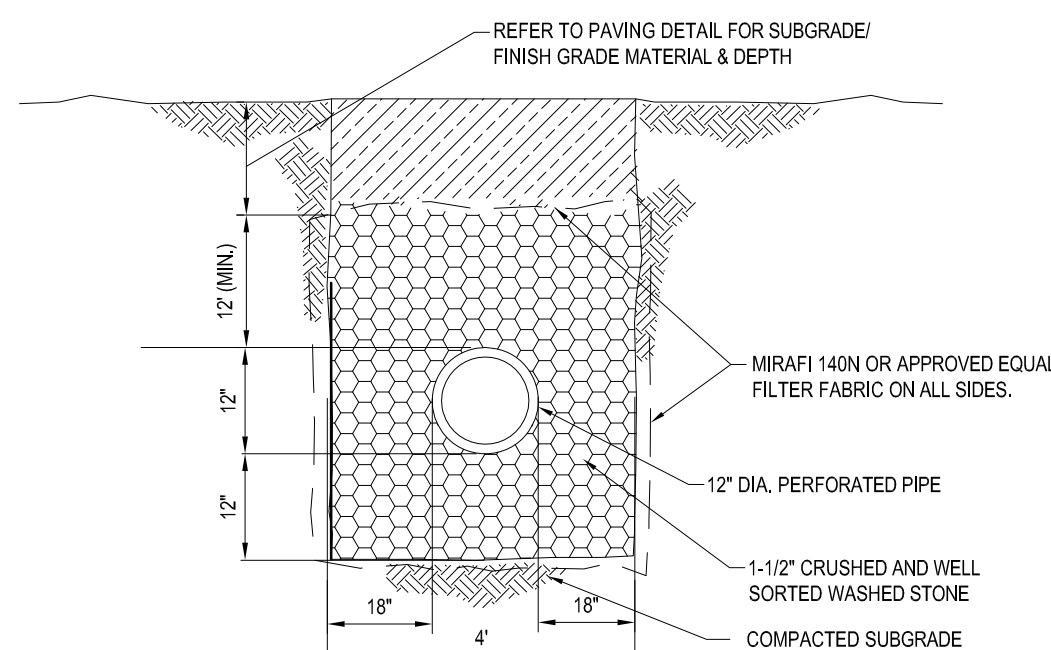
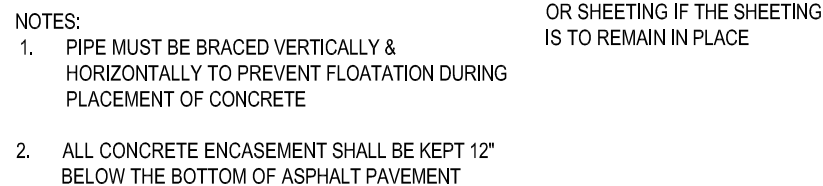
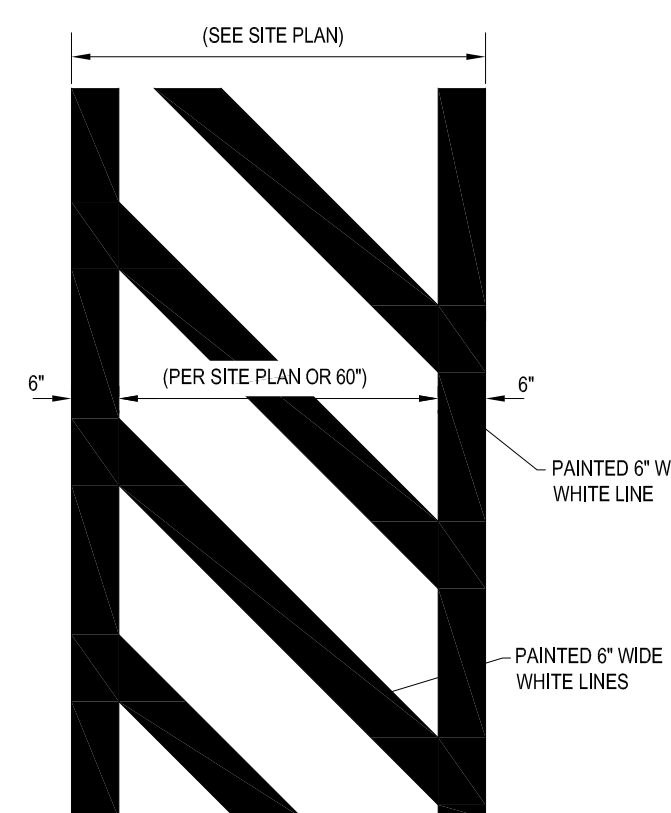
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| ICE | NORTHEAST REGION |
|-----|------------------|
|     |                  |

WESTWOOD, MA



WHERE 10' HORIZONTAL SEPARATION  
OR 18" VERTICAL SEPARATION CANNOT BE ACHIEVED



### SIDE-BY-SIDE STANDARDS & DESIGN TOLERANCES

- 1) DISTANCE FROM CENTER OF OPEN PRESENT WINDOW TO CENTER OF OPEN CHAW WINDOW STANDARD IS 4'24" AND IS SPECIFIC TO THE BUILDING CONFIGURATION. ACCEPTABLE TOLERANCE IS 40" MIN ON REMODELS ONLY.
- 2) DISTANCE FROM CENTER OF OPEN CHAW WINDOW TO CENTER OF PRIMARY LANE COW IS 10' OPTIMUM, 8' OR 8' MIN. ACCEPTABLE TOLERANCE IS PLUS OR MINUS 10' FOR 10' OR 10' QUEUES.
- 3) THE CRITICAL HOLE DISTANCE FROM CENTER OF COW TO CENTER OF MENU BOARD FOOTING IN PRIMARY LANE IS 10'10". THE ANGLE OF THE MENU BOARD CAN BE ADJUSTED FROM 40 DEGREES ALLOWING 100% VISIBILITY FOR THE FIRST CAR AT THE COW.
- 4) THE CRITICAL HOLE DISTANCE FROM CENTER OF THE PRIMARY LANE COW TO THE TIP OF THE CURBED ISLAND IS 15'-0".
- 5) THE CRITICAL HOLE DISTANCE FROM TIP OF ISLAND TO CENTER OF SECONDARY LANE MENU BOARD IS 6'-0". THE DISTANCE FROM OUTSIDE CURB TO THE CENTER OF MENU BOARD IS 22".
- 6) THE CRITICAL HOLE DISTANCE FROM TIP OF ISLAND TO CENTER OF SECONDARY LANE COW IS 14'-0".
- 7) THE ISLAND WIDTH IS 13'-0" STANDARD FROM FACE OF CURB TO CURB.
- 8) THE PRE-SELL BOARD IS OPTIONAL, AND IS GENERALLY LOCATED 30" FROM THE CENTER OF THE COW IN THE PRIMARY LANE. THE END OF THE FRONT FACE OF THE BOARD SHOULD BE 15'-0" FROM THE FACE OF THE CURB.
- 9) A GATEWAY IS REQUIRED AND PLACED AT THE DRIVE-THRU LANE ENTRANCE.
- 10) EVERY SSS SHOULD HAVE BOTH CODY/CANYON IN BOTH LANES.

DRIVE-THRU

SCALE: 1"=10'

THE REGIONAL CONSTRUCTION  
MANAGER IS TO REVIEW AND  
APPROVE ALL DRIVE-THRU  
LAYOUTS. A DRIVE-THRU IS FINAL,  
AND CONSIDERED "RED", ONCE  
APPROVED. NO CHANGES ARE TO  
BE MADE AFTER THIS POINT.


**NOTE:**  
THE PLACEMENT OF THE CODs SHOULD BE SUCH THAT IT PREVENTS, OR MINIMIZES, BLOCKING THE CUSTOMER'S VIEW OF THE MENU BOARD WHILE ORDERING.

NOTE:  
LINEAR DIMENSIONS ARE MEASURED PERPENDICULAR TO  
THE BUILDING FACES SHOWN UNLESS OTHERWISE NOTED.

NOTE:  
ALL SIGN BOLLARDS ARE TO BE 18"-24" FROM FACE OF CURB. THIS IS MEASURED FROM THE CLOSEST POINT ON THE SIGN.

DRIVE-THRU

SCALE: 1"=10'

|   |  |                           |  |                                       |  |
|---|--|---------------------------|--|---------------------------------------|--|
| J.A. KUCICH<br>PROFESSIONAL ENGINEER<br>MASSACHUSETTS LICENSE NO. 41030<br>CONNECTICUT LICENSE NO. 31777<br>RHODE ISLAND LICENSE NO. 9618<br>MAINE LICENSE NO. 1255 |  |                           |  |                                       |  |
|   |  |                           |  |                                       |  |
| THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF McDONALD'S CORPORATION<br>AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.                          |  |                           |  |                                       |  |
|   |  | OFFICE                    |  | NORTHEAST REGION                      |  |
|   |  | ADDRESS                   |  | 690 CANTON STREET<br><br>WESTWOOD, MA |  |
|   |  | DATE                      |  |                                       |  |
|   |  | SIGNATURE                 |  |                                       |  |
|   |  | APPROVED McDONALD'S AGENT |  |                                       |  |
| STATUS  |  | DATE                      |  | BY                                    |  |
| DRAWN BY:   |  | 12/31/13                  |  | EGD                                   |  |
| PLAN CHECKED  |  |                           |  | JAK                                   |  |
| AS-BUILT  |  |                           |  |                                       |  |
| SHEET NO.<br><br><b>C-15</b><br><br>OF 16   |  |                           |  |                                       |  |

APPROVED BY THE COMMUNITY DEVELOPMENT BOARD

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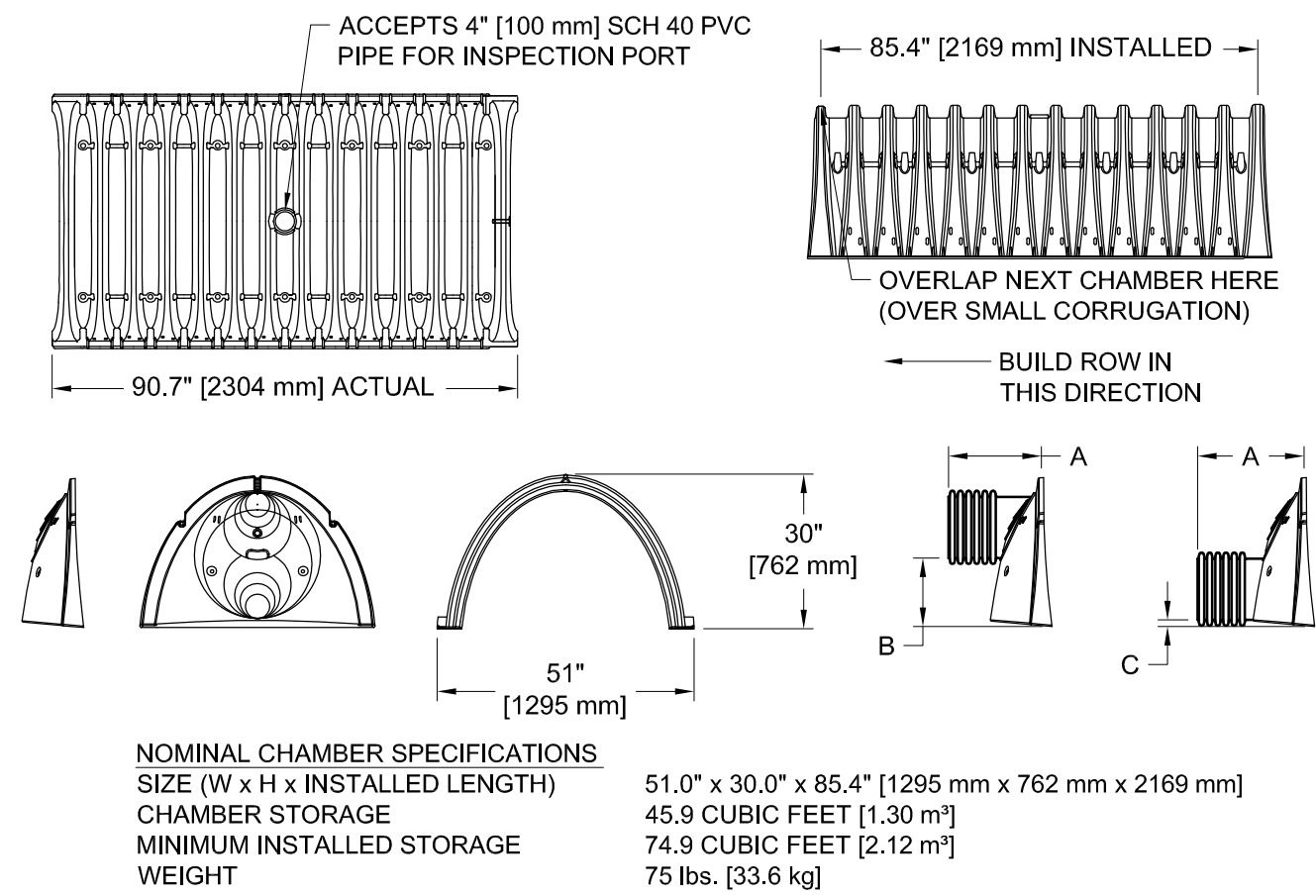
DATE: \_\_\_\_\_

|                               |      |
|-------------------------------|------|
| CONSTRUCTION CHECK            | DATE |
| CONSTRUCTION CHECK            | DATE |
| PROJECT No.:<br>W132002       |      |
| CAD I.D. #:<br>W132002ss9.dwg |      |

|                                  |                  |
|----------------------------------|------------------|
| STREET ADDRESS                   |                  |
| SWAN STREET@ CORNISH STREET EXT. |                  |
| CITY                             | STATE            |
| METHUEN                          | MASSACHUSETTS    |
| COUNTY                           |                  |
| ESSEX                            |                  |
| REGIONAL DWG. NO                 | PLAN DESCRIPTION |
| -                                | DETAIL<br>SHEET  |



## SC-740 TECHNICAL SPECIFICATIONS



STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"  
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

| PART#        | STUB         | A               | B               | C             |
|--------------|--------------|-----------------|-----------------|---------------|
| SC740EPE06T  | 6" [150 mm]  | 10.90" [277 mm] | 18.50" [470 mm] | N/A           |
| SC740EPE06B  | 6" [150 mm]  | 10.90" [277 mm] | N/A             | 0.50" [13 mm] |
| SC740EPE08T  | 8" [200 mm]  | 12.20" [310 mm] | 16.50" [419 mm] | N/A           |
| SC740EPE08B  | 8" [200 mm]  | 12.20" [310 mm] | N/A             | 0.60" [15 mm] |
| SC740EPE10T  | 10" [250 mm] | 13.40" [340 mm] | 14.50" [368 mm] | N/A           |
| SC740EPE10B  | 10" [250 mm] | 13.40" [340 mm] | N/A             | 0.70" [18 mm] |
| SC740EPE12T  | 12" [300 mm] | 14.70" [373 mm] | 12.50" [318 mm] | N/A           |
| SC740EPE12B  | 12" [300 mm] | 14.70" [373 mm] | N/A             | 1.20" [30 mm] |
| SC740EPE15T  | 15" [375 mm] | 18.40" [467 mm] | 9.00" [229 mm]  | N/A           |
| SC740EPE15B  | 15" [375 mm] | 18.40" [467 mm] | N/A             | 1.30" [33 mm] |
| SC740EPE18T  | 18" [450 mm] | 19.70" [500 mm] | 5.00" [127 mm]  | N/A           |
| SC740EPE18B  | 18" [450 mm] | 19.70" [500 mm] | N/A             | 1.60" [41 mm] |
| *SC740EPE24B | 24" [600 mm] | 18.50" [470 mm] | N/A             | 0.10" [3 mm]  |

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

\*FOR THE SC740EPE24B THE 24" [600 mm] STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" [44 mm]. BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

## STORMTECH PRODUCT SPECIFICATIONS

- GENERAL**  
STORMTECH CHAMBERS ARE DESIGNED TO CONTROL STORMWATER RUNOFF. AS A SUBSURFACE RETENTION SYSTEM, STORMTECH CHAMBERS RETAIN AND ALLOW EFFECTIVE INFILTRATION OF WATER INTO THE SOIL. AS A SUBSURFACE DETENTION SYSTEM, STORMTECH CHAMBERS DETAIN AND ALLOW FOR THE METERED FLOW OF WATER TO AN OUTFALL.
- CHAMBER PARAMETERS**  
THE CHAMBER SHALL BE INJECTION MOLDED OF POLYPROPYLENE RESIN TO BE INHERENTLY RESISTANT TO ENVIRONMENTAL STRESS CRACKING (ESCR), AND TO MAINTAIN ADEQUATE STIFFNESS THROUGH HIGHER TEMPERATURES EXPERIENCED DURING INSTALLATION AND SERVICE.
- THE NOMINAL CHAMBER DIMENSIONS OF THE STORMTECH SC-740 SHALL BE 30.0 INCHES [762 mm] TALL, 51.0 INCHES [1295 mm] WIDE AND 90.7 INCHES [2304 mm] LONG. THE NOMINAL CHAMBER DIMENSIONS OF THE STORMTECH SC-310 SHALL BE 16.0 INCHES [406 mm] TALL, 34.0 INCHES [864 mm] WIDE AND 90.7 INCHES [2304 mm] LONG. THE INSTALLED LENGTH OF A JOINED CHAMBER SHALL BE 85.4 INCHES [2169 mm].
- THE CHAMBER SHALL HAVE A CONTINUOUSLY CURVED SECTION PROFILE.
- THE CHAMBER SHALL BE OPEN-BOTTOMED.
- THE CHAMBER SHALL INCORPORATE AN OVERLAPPING CORRUGATION JOINT SYSTEM TO ALLOW CHAMBER ROWS OF ALMOST ANY LENGTH TO BE CREATED. THE OVERLAPPING CORRUGATION JOINT SYSTEM SHALL BE EFFECTIVE WHILE ALLOWING A CHAMBER TO BE TRIMMED TO SHORTEN ITS OVERALL LENGTH.
- THE NOMINAL STORAGE VOLUME OF A JOINED STORMTECH SC-740 CHAMBER SHALL BE 74.9 CUBIC FEET [2.12 m³] PER CHAMBER WHEN INSTALLED PER STORMTECH'S TYPICAL DETAILS (INCLUDES THE VOLUME OF CRUSHED ANGULAR STONE WITH AN ASSUMED 40% POROSITY). THIS EQUATES TO 2.2 CUBIC FEET OF STORAGE/SQUARE FOOT [0.7 m³ OF STORAGE/SQUARE METER] OF BED. THE NOMINAL STORAGE VOLUME OF AN INSTALLED STORMTECH SC-310 CHAMBER SHALL BE 31.0 CUBIC FEET [0.89 m³] PER CHAMBER WHEN INSTALLED PER STORMTECH'S TYPICAL DETAILS (INCLUDES THE VOLUME OF CRUSHED ANGULAR STONE WITH AN ASSUMED 40% POROSITY). THIS EQUATES TO 1.3 CUBIC FEET OF STORAGE/SQUARE FOOT [0.4 m³ OF STORAGE/SQUARE METER] OF BED.
- THE CHAMBER SHALL HAVE FORTY-EIGHT ORIFICES PENETRATING THE SIDEWALLS TO ALLOW FOR LATERAL CONVEYANCE OF WATER.
- THE CHAMBER SHALL HAVE TWO ORIFICES NEAR ITS TOP TO ALLOW FOR EQUALIZATION OF AIR PRESSURE BETWEEN ITS INTERIOR AND EXTERIOR.
- THE CHAMBER SHALL HAVE BOTH OF ITS ENDS OPEN TO ALLOW FOR UNIMPEDED HYDRAULIC FLOWS AND VISUAL INSPECTIONS DOWN A ROW'S ENTIRE LENGTH.
- THE CHAMBER SHALL HAVE 14 CORRUGATIONS.
- THE CHAMBER SHALL HAVE A CIRCULAR, INDENTED, FLAT SURFACE ON THE TOP OF THE CHAMBER FOR AN OPTIONAL 4-INCH [100 mm] INSPECTION PORT.
- THE CHAMBER SHALL BE ANALYZED AND DESIGNED USING AASHTO METHODS FOR THERMOPLASTIC CULVERTS CONTAINED IN THE LRFD BRIDGE DESIGN SPECIFICATIONS, 2ND EDITION, INCLUDING INTERM SPECIFICATIONS THROUGH 2001. DESIGN LIVE LOAD SHALL BE THE AASHTO HS20 TRUCK. DESIGN SHALL CONSIDER EARTH AND LIVE LOADS AS APPROPRIATE FOR THE MINIMUM TO MAXIMUM SPECIFIED DEPTH OF FILL.
- THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2000 CERTIFIED FACILITY.
- END CAP PARAMETERS**- END CAPS WITH PREFABRICATED PIPE CONNECTIONS SHALL BE INJECTION MOLDED FROM POLYETHYLENE RESIN.
- THE END CAP SHALL BE DESIGNED TO FIT INTO ANY CORRUGATION OF A CHAMBER, WHICH ALLOWS: CAPPING A CHAMBER THAT HAS ITS LENGTH TRIMMED; SEGMENTING ROWS INTO STORAGE BASINS OF VARIOUS LENGTHS.
- THE END CAP SHALL HAVE SAW GUIDES TO ALLOW EASY CUTTING FOR VARIOUS DIAMETERS OF PIPE THAT MAY BE USED TO INLET THE SYSTEM.
- THE END CAP SHALL HAVE EXCESS STRUCTURAL ADEQUACIES TO ALLOW CUTTING AN ORIFICE OF ANY SIZE AT ANY INVERT ELEVATION.
- THE PRIMARY FACE OF AN END CAP SHALL BE CURVED OUTWARD TO RESIST HORIZONTAL LOADS GENERATED NEAR THE EDGES OF BEDS.
- THE END CAP SHALL BE MANUFACTURED IN AN ISO 9001:2000 CERTIFIED FACILITY.

## STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740, SC-310 OR APPROVED EQUAL.
- CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418-09, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCE.
- ONLY CHAMBERS THAT ARE APPROVED BY THE ENGINEER WILL BE ALLOWED. THE CONTRACTOR SHALL SUBMIT (3 SETS) OF THE FOLLOWING TO THE ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
  - A STRUCTURAL EVALUATION BY A REGISTERED STRUCTURAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET. THE 50-YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418-05 MUST BE USED AS A PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
- CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
- ALL DESIGN SPECIFICATIONS FOR CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST DESIGN MANUAL.
- THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.

## STORMTECH GENERAL NOTES

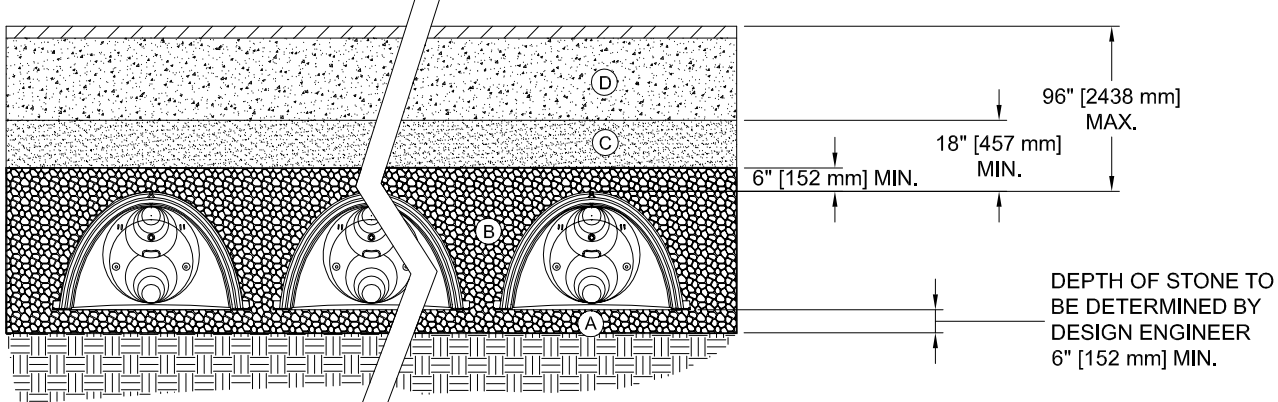
- STORMTECH REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
- OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL 1-888-892-2694 TO SPEAK TO A TECHNICAL SERVICES REPRESENTATIVE OR VISIT [WWW.STORMTECH.COM](http://WWW.STORMTECH.COM) TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
- STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.): MINIMUM COVER IS 18" [457 mm] NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96" [2438 mm] INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE CUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24" [610 mm], MAXIMUM COVER IS 96" [2438 mm].
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
- AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
- STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- BACKFILL OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: [WWW.STORMTECH.COM](http://WWW.STORMTECH.COM). THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
- THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
- STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT 1-888-892-2694 OR VISIT [WWW.STORMTECH.COM](http://WWW.STORMTECH.COM)

## STORMTECH ACCEPTABLE FILL

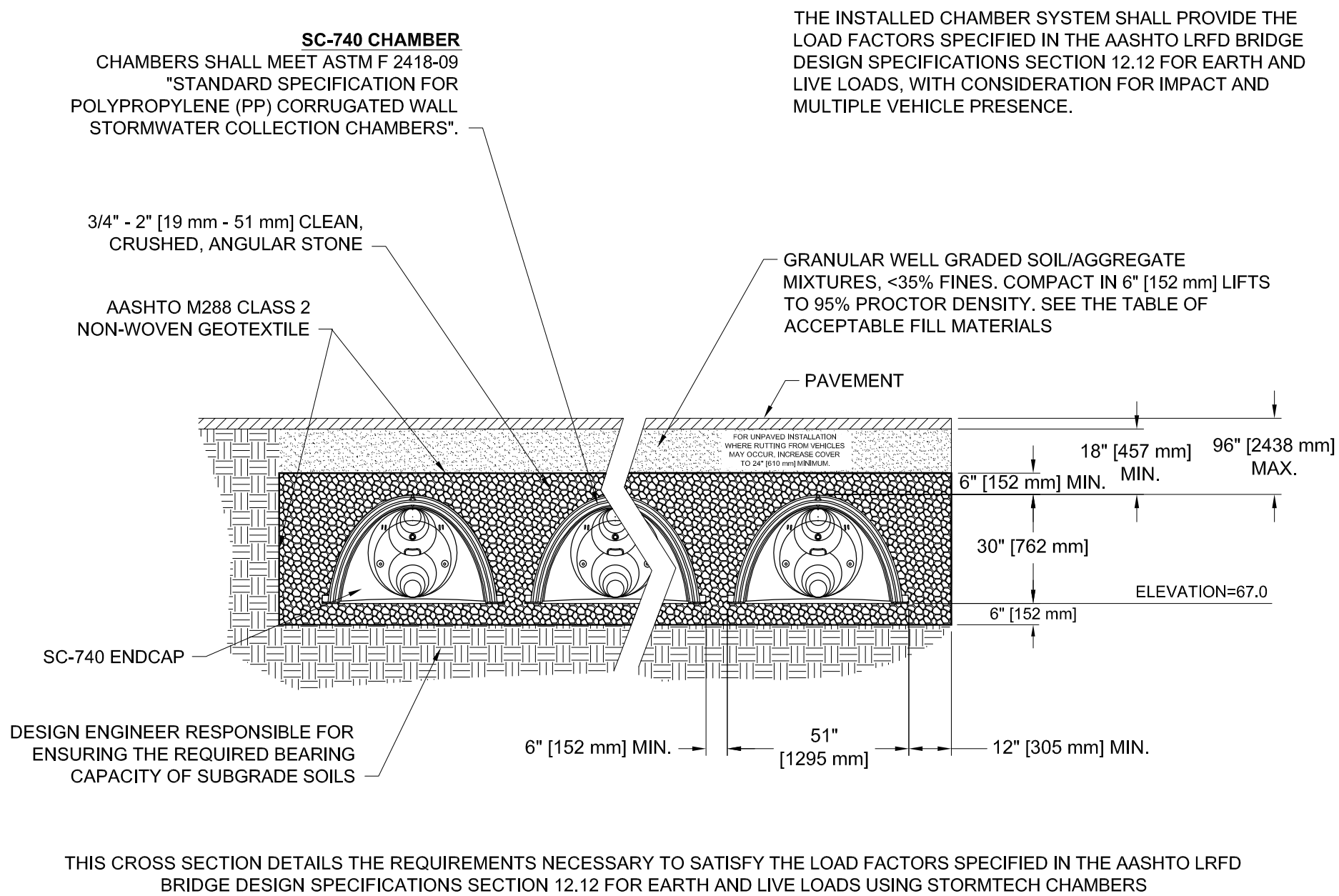
### ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 AND SC-310 CHAMBER SYSTEMS

| MATERIAL LOCATION | DESCRIPTION   | AASHTO M43 DESIGNATION <sub>1</sub>                       | COMPACTION/DENSITY REQUIREMENT   |
|-------------------|---|---|--|
| D                 | FILL MATERIAL FOR LAYER D STARTS FROM THE TOP OF THE C LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISH GRADE ABOVE. NOTE THAT PAVEMENT SUB-BASE MAY BE PART OF THIS LAYER. | N/A   | PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.  |
| C                 | FILL MATERIAL FOR LAYER C STARTS FROM THE TOP OF THE EMBEDMENT STONE (B LAYER) TO 18" [457 mm] ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUB-BASE MAY BE A PART OF THIS LAYER. | 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 88, 9, 10 | BEGIN COMPACTION AFTER 12" [305 mm] OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" [152 mm] LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY <sub>2</sub> (i.e. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs [53 kN], DYNAMIC FORCE NOT TO EXCEED 20,000 lbs [89 kN]) |
| B                 | EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A LAYER) TO THE C LAYER ABOVE.  | 3, 357, 4, 467, 5, 56, 57                                 | NO COMPACTION REQUIRED.  |
| A                 | FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.   | 3, 35, 4, 467, 5, 56, 57                                  | PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY <sub>2</sub> .   |

PLEASE NOTE:  
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".  
2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" [229 mm] (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.



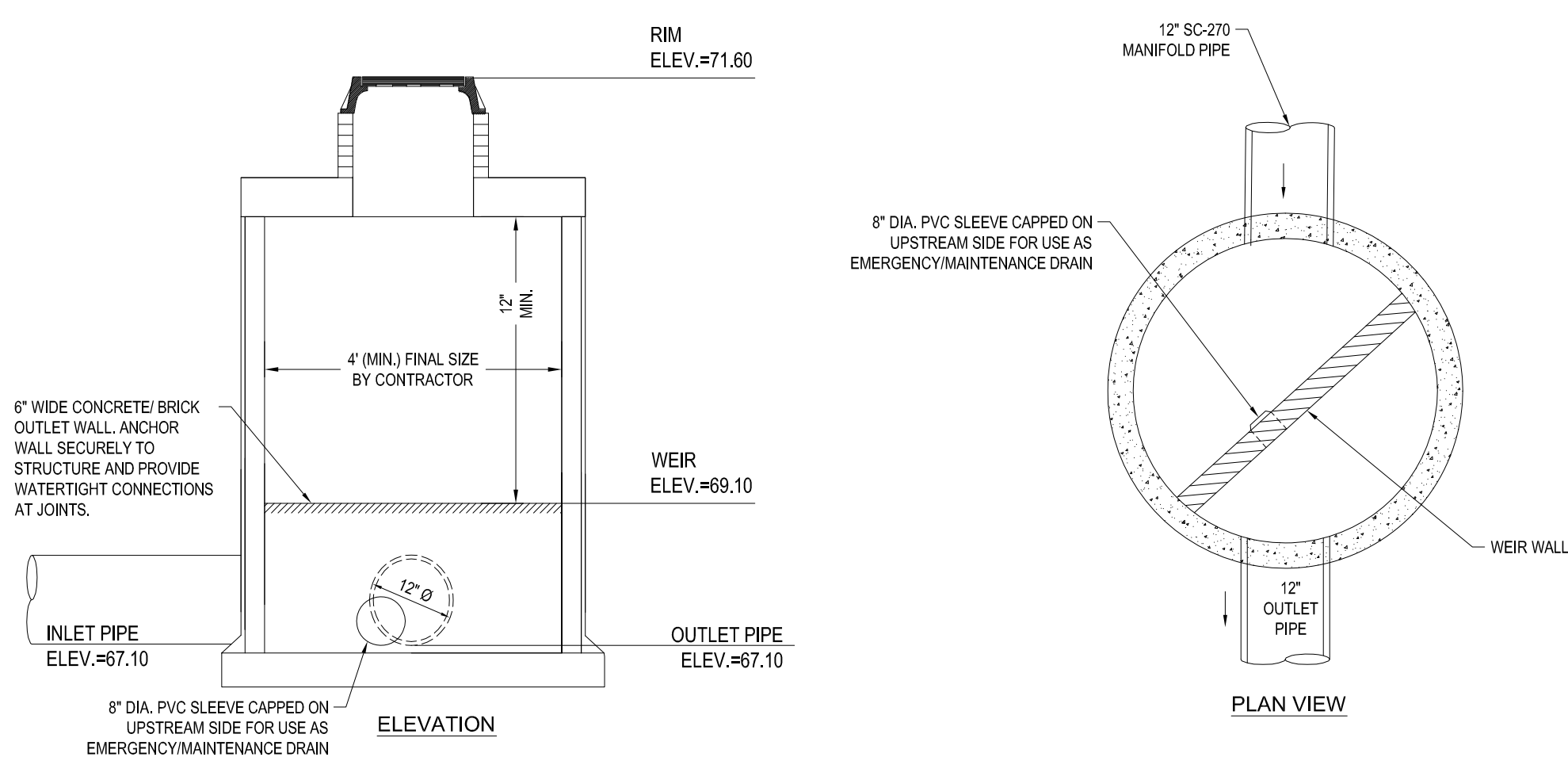
## SC-740 TYPICAL CROSS- SECTION



THIS CROSS SECTION DETAILS THE REQUIREMENTS NECESSARY TO SATISFY THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS USING STORMTECH CHAMBERS

## OUTLET CONTROL STRUCTURE

N.T.S.



APPROVED BY THE COMMUNITY DEVELOPMENT BOARD

DATE: \_\_\_\_\_



**BOHLER**  
ENGINEERING

352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
Phone: (508) 480-9900  
Fax: (508) 480-9080  
[www.BohlerEngineering.com](http://www.BohlerEngineering.com)

CIVIL & CONSULTING ENGINEERS  
SURVEYORS  
PROJECT MANAGERS  
ENVIRONMENTAL CONSULTANTS  
LANDSCAPE ARCHITECTS

CORPORATE OFFICE:  
♦ WARREN, NJ

OFFICES:  
♦ SOUTHBOROUGH, MA  
♦ BOWIE, MD  
♦ TOWSON, MD  
♦ ALBANY, NY  
♦ RONKONKOMA, MA  
♦ CENTER VALLEY, PA  
♦ CHALFONT, PA  
♦ PHILADELPHIA, PA  
♦ STERLING, VA  
♦ WARRINGTON, VA  
♦ FORT LAUDERDALE, FL  
♦ TAMPA, FL

CONSTRUCTION CHECK \_\_\_\_\_ DATE \_\_\_\_\_

CONSTRUCTION CHECK \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT No.: W132002

CAD I.D. #: W132002ss9.dwg

STREET ADDRESS  
SWAN STREET@ CORNISH STREET EXT.

CITY  
METHUEN

STATE  
MASSACHUSETTS

COUNTY  
ESSEX

REGIONAL DWG. NO  
-

PLAN DESCRIPTION  
DETAIL SHEET

STATUS

DRAWN BY:

PLAN CHECKED

AS-BUILT

SHEET NO.

C-16

OF 16

J.A. KUCICH  
PROFESSIONAL ENGINEER  
MASSACHUSETTS LICENSE NO. 41303  
CONNECTICUT LICENSE NO. 38777  
RHODE ISLAND LICENSE NO. 9618  
MAINE LICENSE NO. 12503

McDonald's®

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF McDONALD'S CORPORATION AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

OFFICE ADDRESS

DATE

SIGNATURE

APPROVED McDONALD'S AGENT

PLAN APPROVALS

DATE

SIGNATURE

APPROVED McDONALD'S AGENT

DATE

SIGNATURE

APPROVED McDONALD'S AGENT

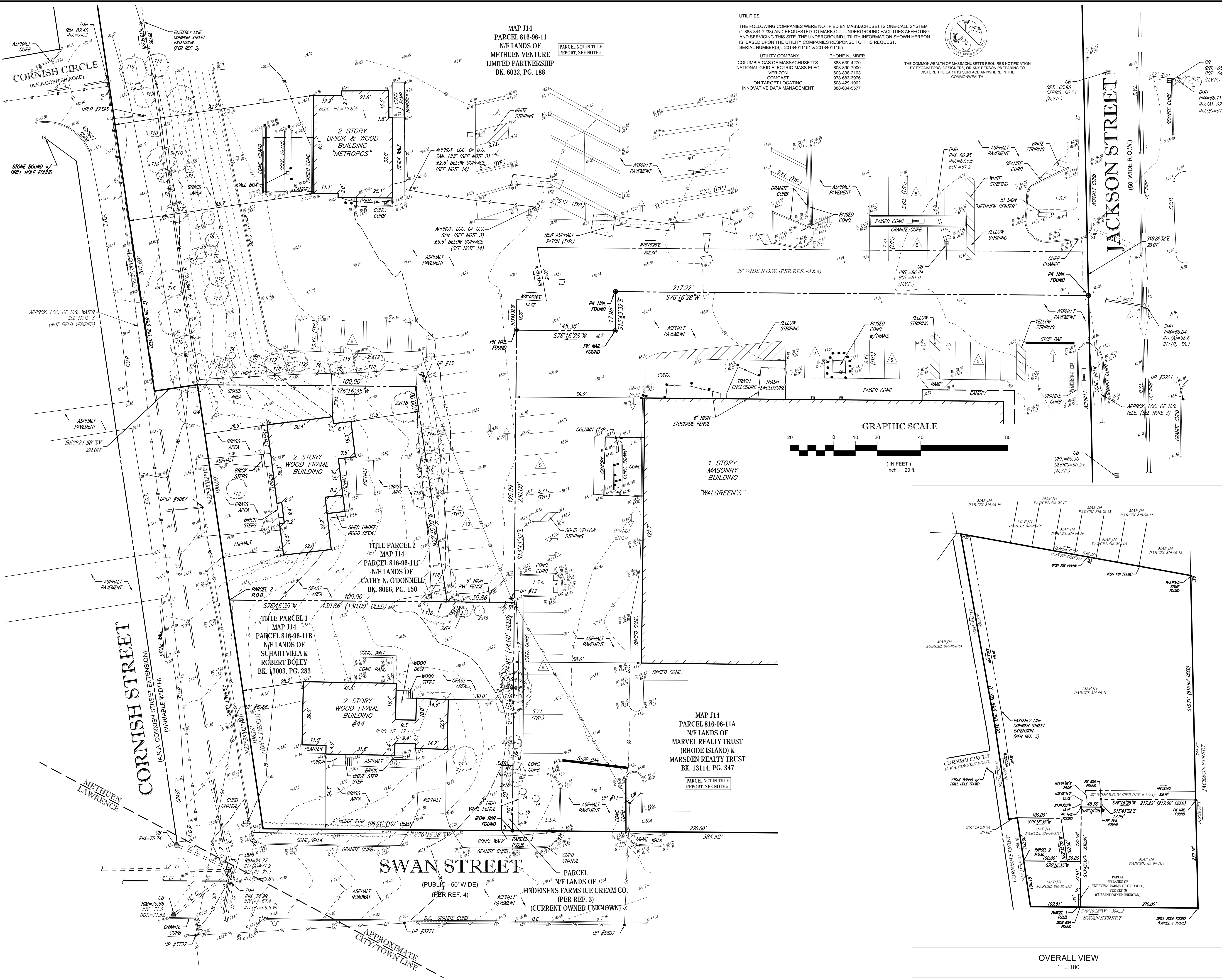
DATE

SIGNATURE

APPROVED McDONALD'S AGENT



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| OWNERSHIP                    |   |                    |
|------------------------------|---|--------------------|
| MAP J14<br>PARCEL 816-96-11  | N/F LANDS OF<br>METHUEN VENTURE<br>LIMITED PARTNERSHIP                          | BK. 6032, PG. 188  |
| MAP J14<br>PARCEL 816-96-11  | N/F LANDS OF<br>METHUEN VENTURE<br>LIMITED PARTNERSHIP                          | BK. 6032, PG. 188  |
| MAP J14<br>PARCEL 816-96-11A | N/F LANDS OF<br>MARVEL REALTY TRUST<br>(RHODE ISLAND) &<br>MARSDEN REALTY TRUST | BK. 13114, PG. 347 |
| MAP J14<br>PARCEL 816-96-11B | N/F LANDS OF<br>SUHATHI VILLA &<br>ROBERT BOLEY                                 | BK. 13003, PG. 283 |
| MAP J14<br>PARCEL 816-96-11C | N/F LANDS OF<br>CATHY N. O'DONNELL  | BK. 8066, PG. 150  |
| MAP J14<br>PARCEL 816-96-12  | N/F LANDS OF<br>SAIDI G. EL KHOURY  | BK. 9732, PG. 199  |
| MAP J14<br>PARCEL 816-96-14  | N/F LANDS OF<br>DAVID & COLLEEN<br>LAWLEY                                       | BK. 9488, PG. 219  |
| MAP J14<br>PARCEL 816-96-14A | N/F LANDS OF<br>MICHAEL &<br>JAMES M. JR FARINO                                 | BK. 12426, PG. 153 |
| MAP J14<br>PARCEL 816-96-15  | N/F LANDS OF<br>COSTA FAMILY REALTY TRUST                                       | BK. 11489, PG. 130 |
| MAP J14<br>PARCEL 816-96-16  | N/F LANDS OF<br>CONTORELLI TRUST  | BK. 6662, PG. 1    |
| MAP J14<br>PARCEL 816-96-17  | N/F LANDS OF<br>NICOLE D. STEFANO   | BK. 12327, PG. 172 |
| MAP J14<br>PARCEL 816-96-18  | N/F LANDS OF<br>JUAN RESTO &<br>ANAL GONZALEZ                                   | BK. 6704, PG. 66   |
| MAP J14<br>PARCEL 816-96-19  | N/F LANDS OF<br>ANGEL L. & WANDA I. OYOLA                                       | BK. 5972, PG. 49   |

SEE NOTES, REFERENCES, LEGEND, ZONING, AND EXHIBIT 'A' ON SHEET 2 OF 2

| TO: McDONALD'S USA, LLC<br>CHICAGO TITLE INSURANCE COMPANY |                                  |            |        |           |          |
|--|----------------------------------|------------|--------|-----------|----------|
| 3  | UPDATE WITH RECEIPT F TITLE      | N/A        | J.L.S. | A.J.L.    | 12-2-13  |
| 2  | ADDITIONAL TOPOGRAPHY            | S.P.P.     | J.L.S. | A.J.L.    | 11-19-13 |
| 1  | ADDED APPROXIMATE CITY/TOWN LINE | N/A        | J.L.S. | A.J.L.    | 10-25-13 |
| No.  | DESCRIPTION OF REVISION          | FIELD CREW | DRAWN: | APPROVED: | DATE     |

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT WAS BASED WERE MADE IN ACCORDANCE WITH THE '2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS'. JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 6(b), 7(b), 7(b)(1), 7(c), 8, 9, 11(b), 13, 14, 17 and 20(a) OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON NOVEMBER 19, 2013.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH A RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL.

**A. JOHN LLOYD**  
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #38385

DATE

FIELD DATE  
11-11-13  
10-9-13

FIELD BOOK NO  
13-02  
13-24

FIELD BOOK PG.  
76-77  
36-39

FIELD CREW  
S.P.P.  
T.M.

DRAWN:  
IDV-AMK

REVIEWED:  
J.L.S.

**McDONALD'S USA, LLC**  
LAND TITLE SURVEY  
SWAN STREET & CORNISH STREET EXTENSION  
PARCELS 816-96-11, 816-96-11A, 816-96-11B & 816-96-11C  
CITY OF METHUEN, ESSEX COUNTY  
COMMONWEALTH OF MASSACHUSETTS  
L/C# 020-1133

**CONTROL POINT ASSOCIATES, INC.**  
352 TURNPIKE ROAD  
SOUTH BOKROUGH, MA 01772  
508.948.3000 - 508.948.3003 FAX  
WARREN, NJ 08068.0099  
CHALFONT, PA 215.9800

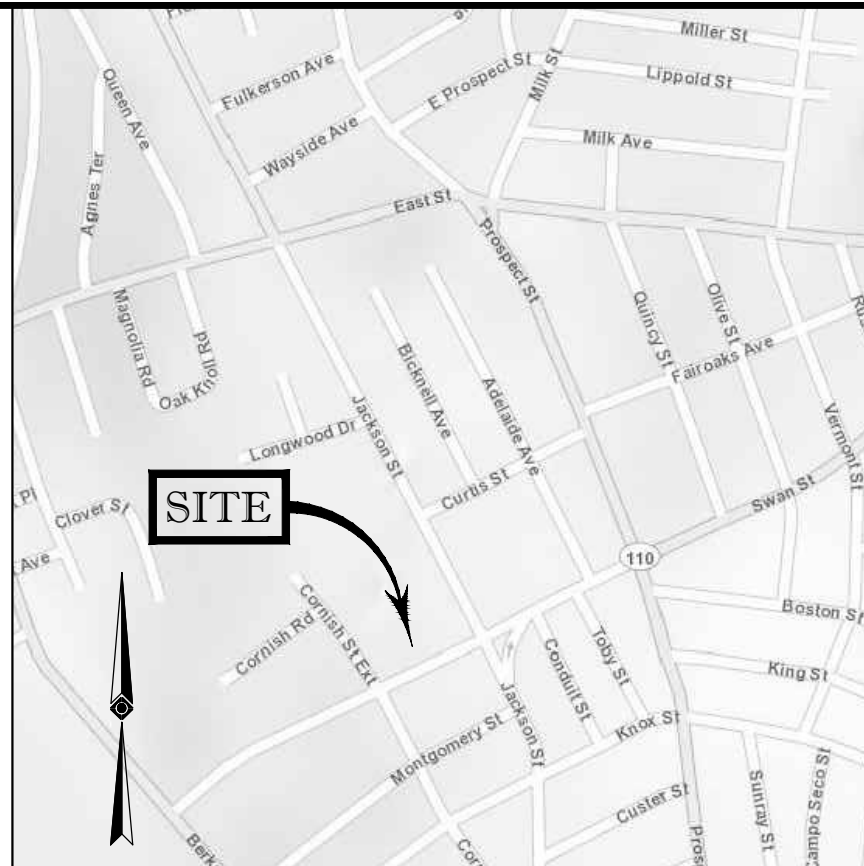
APPROVED:  
A.J.L.

DATE  
10-23-13

SCALE  
1"=20'

FILE NO.  
CM13231

DWG. NO.  
1 OF 2



VICINITY MAP  
© 2013 ESRI, World Street Map



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| LEGEND |   |  |                         |
|--------|---|--|-------------------------|
|        | EXISTING CONTOUR                        |  | SIGN                    |
|        | EXISTING SPOT ELEVATION                 |  | BOLLARD                 |
|        | EXISTING TOP OF CURB ELEVATION          |  | PAINTED ARROWS          |
|        | EXISTING GUTTER ELEVATION               |  | LAMP POST               |
|        | EXISTING TOP OF WALL ELEVATION          |  | AIR CONDITIONER UNIT    |
|        | EXISTING BOTTOM OF WALL ELEVATION       |  | DRAINAGE/STORM MANHOLE  |
|        | EXISTING TOP OF ISLAND ELEVATION        |  | SANITARY/SEWER MANHOLE  |
|        | EXISTING BOTTOM OF ISLAND ELEVATION     |  | CATCH BASIN OR INLET    |
|        | EXISTING DOOR SILL ELEVATION            |  | HYDRANT                 |
|        | APPROX. LOC. UNDERGROUND WATER LINE     |  | WATER VALVE             |
|        | APPROX. LOC. UNDERGROUND TELEPHONE LINE |  | GAS METER               |
|        | DECIDUOUS TREE & TRUNK SIZE             |  | ELECTRIC METER          |
|        | PARKING SPACE COUNT                     |  | GUY WIRE                |
|        | OVERHEAD WIRES                          |  | STREET LIGHT            |
|        | UTILITY POLE                            |  | UTILITY POLE/LIGHT POLE |
|        |   |  | AREA LIGHT              |

ZONING INFORMATION  
BH (HIGHWAY BUSINESS) DISTRICT  
SOURCE: CITY OF METHUEN ZONING ORDINANCE

| ITEMS                   | REQUIRED    |
|-------------------------|-------------|
| MIN. LOT AREA           | 10,000 S.F. |
| MIN. FRONTAGE           | 100'        |
| MIN. FRONT YARD SETBACK | 25'         |
| MIN. SIDE YARD SETBACK  | 30'*        |
| MIN. REAR YARD SETBACK  | 30'*        |
| MAX. BUILDING HEIGHT    | 40'         |
| MAX. LOT COVERAGE       | 35%         |

\*SEE ZONING FOR ADDITIONAL REQUIREMENTS.

NOTE: ZONING CRITERIA IDENTIFIED HEREON ARE BASED UPON PRELIMINARY INVESTIGATION AND PRESENTED FOR REFERENCE ONLY. SAME MUST BE CONFIRMED WITH LOCAL ZONING OFFICIAL AND LEGAL COUNSEL TO CONFIRM VALIDITY.

NOTES:

- PROPERTY KNOWN AS PARCELS 816-96-11, 816-96-11A, 816-96-11B & 816-96-11C AS SHOWN ON THE ASSESSOR'S MAPS OF THE CITY OF METHUEN, ESSEX COUNTY, COMMONWEALTH OF MASSACHUSETTS, MAPS #J14 & J15.
- AREA OF LOT 11 = 278,908 SQUARE FEET OR 6.403 ACRES  
AREA OF LOT 11A= 65,221 SQUARE FEET OR 1.497 ACRES  
AREA OF LOT 11B = 12,721 SQUARE FEET OR 0.292 ACRES  
AREA OF LOT 11C = 9,881 SQUARE FEET OR 0.227 ACRES  
AREA OF UNKNOWN OWNERSHIP = 150 SQUARE FEET OR 0.003 ACRES  
  
TOTAL AREA = 366,850 SQUARE FEET OR 8.422 ACRES
- LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
- THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
- THIS SURVEY IS PREPARED WITH REFERENCE TO A TITLE REPORT FOR PARCELS 816-96-11B & 816-96-11C PREPARED BY CHICAGO TITLE INSURANCE COMPANY, MMOG NO. 13-48135, CTIC ORDER NO. 71301323, WITH AN EFFECTIVE DATE OF OCTOBER 17, 2013. WHERE NO SURVEY RELATED EXCEPTIONS APPEAR IN SCHEDULE B, SECTION II.  
  
FOR PARCELS 816-96-11 & 816-96-11A THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
- BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2.
- THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
- ELEVATIONS ARE BASED UPON NAVD 1988 PER GPS OBSERVATIONS UTILIZING THE KEYSTONE KEYNET VRS NETWORK.
- THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
- PER CONTRACTUAL AGREEMENT WITH THE CLIENT, IMPROVEMENTS ON THE REMAINDER OF THE PARCEL BEYOND THE TOPOGRAPHIC SURVEY AREA HAVE NOT BEEN SHOWN.
- UNDERGROUND SANITARY LINE WAS MARKED BY MARCEAU CONSTRUCTION CORP. ON NOVEMBER 11, 2013 AND LOCATED BY CONTROL POINT ASSOCIATES, INC. ON NOVEMBER 11, 2013.
- THERE IS NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
- CHANGES IN STREET RIGHT OF WAY LINES EITHER COMPLETED OR PROPOSED REVEALED IN THE TITLE REPORT AND REFERENCE MAPS HAVE BEEN SHOWN.
- THE LAND AS DESCRIBED IN THIS SURVEY CONSTITUTES PARCELS 816-96-11, 816-96-11A, 816-96-11B & 816-96-11C, AND THERE ARE NO GAPS, GORES OR STRIPS BETWEEN SUCH PARCELS.
- THE PROPERTY LINE OF PARCELS 816-96-11, 816-96-11A, 816-96-11B & 816-96-11C RUN ALONG THE RIGHT-OF-WAY LINES OF JACKSON STREET, SWAN STREET AND CORNISH STREET.
- PARCELS 816-96-11, 816-96-11A, 816-96-11B & 816-96-11C ARE INDIVIDUALLY DEEDED TAX LOTS WHICH INDICATES THEY COULD BE CONVEYED WITHOUT REQUIRING A SUBDIVISION.

REFERENCES:

- THE TAX ASSESSOR'S MAP OF THE CITY OF METHUEN, ESSEX COUNTY, COMMONWEALTH OF MASSACHUSETTS, MAPS #J14 & J15.
- MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, ESSEX COUNTY, MASSACHUSETTS, (ALL JURISDICTIONS), PANEL 206 OF 600," MAP NUMBER 25099C0206F, EFFECTIVE DATE: JULY 3, 2012.
- MAP ENTITLED "PLAN OF LAND IN METHUEN, MASS., FINDEISEN'S FARMS ICE CREAM CO. - OWNER," PREPARED BY NEW ENGLAND SURVEY SERVICE, INC., DATED: JUNE 14, 1960, FILED IN ESSEX NORTH DISTRICT REGISTRY OF DEEDS ON OCTOBER 24, 1960 IN BOOK 924, PAGE 265 AS PLAN #4155.
- MAP ENTITLED "PLAN OF LAND IN METHUEN, MA, PREPARED FOR: MARK INVESTMENT, INC.," PREPARED BY BRUCE SALKU & ASSOCIATES, INC., DATED: DECEMBER 14, 2000, FILED IN ESSEX NORTH DISTRICT REGISTRY OF DEEDS ON MARCH 2, 2001 AS PLAN #13948.
- MAP ENTITLED "METHUEN, MASS., OWNED BY JAMES T. LONG," PREPARED BY JOHN T. DESMOND, DATED MAY, 1906, FILED IN THE ESSEX NORTH DISTRICT REGISTRY OF DEEDS ON MARCH 4, 1910 AS PLAN BOOK 1, PAGE 49.
- MAP ENTITLED "PLAN OF LAND IN METHUEN, MASS., PREPARED FOR RAYMOND RUHMANN," PREPARED BY STOWERS ASSOCIATES, INC., DATED JUNE 2002, FILED IN ESSEX NORTH DISTRICT REGISTRY OF DEEDS ON OCTOBER 11, 2002 AS PLAN #14389.
- WATER FACILITY MAPPING PROVIDED BY THE CITY OF METHUEN ENGINEERING DEPARTMENT.
- SEWER FACILITY MAPPING PROVIDED BY THE CITY OF METHUEN ENGINEERING DEPARTMENT.

EXHIBIT A

PARCEL I( 44 SWAN STREET)

THE LAND IN SAID METHUEN, ESSEX COUNTY, COMMONWEALTH OF MASSACHUSETTS, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTHERLY LINE OF SWAN STREET WHICH IS TWO HUNDRED SEVENTY-FIVE (275) FEET WEST OF THE WESTERLY LINE OF JACKSON STREET EXTENSION, THENCE

WESTERLY ABOUT ONE HUNDRED SEVEN (107) FEET ALONG SAID LINE OF SWAN STREET TO A SPIKE IN THE GROUND; THENCE

NORTHERLY AT AN ANGLE OF 98° 51' 30" ONE HUNDRED SIX (106) FEET MORE OR LESS BY LAND NOW OR FORMERLY OF FINDEISEN'S FARMS ICE CREAM CO. TO A STAKE; THENCE

EASTERLY AT AN ANGLE OF 81° 8' 30" ABOUT ONE HUNDRED THIRTY-ONE (131) FEET BY LAND NOW OR FORMERLY OF FINDEISEN'S ICE CREAM CO. TO A STAKE; THENCE

SOUTHERLY SEVENTY-FOUR (74) FEET BY LAND NOW OR FORMERLY OF FINDEISEN'S ICE CREAM CO. TO A STAKE; THENCE

WESTERLY FIVE (5) FEET TO A STAKE AND THENCE SOUTHERLY THIRTY-FIVE (35) FEET, BOTH COURSES BY LAND NO [NOW] OR FORMERLY OF FINDEISEN'S ICE CREAM CO. TO THE POINT OF BEGINNING.

PARCEL II(3 CORNISH EXTENSION)

THE LAND IN METHUEN, ESSEX COUNTY, COMMONWEALTH OF MASSACHUSETTS, BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

WESTERLY ONE HUNDRED (100) FEET BY CORNISH EXTENSION, SO CALLED;

NORTHERLY ONE HUNDRED (100) FEET BY LAND NOW OR FORMERLY OF FINDEISEN'S ICE CREAM CO.;

EASTERLY ONE HUNDRED (100) FEET BY LAND NOW OR FORMERLY OF FINDEISEN'S ICE CREAM CO.;

SOUTHERLY ONE HUNDRED (100) FEET BY LAND NOW OR FORMERLY OF SAAB.

THE SOUTHWESTERLY CORNER OF SAID PREMISES IS ONE HUNDRED FOUR (104) FEET NORTH OF THE NORTHERN LINE OF SWAN STREET.

TO: McDONALD'S USA, LLC  
CHICAGO TITLE INSURANCE COMPANY

|   |                                  |        |        |        |          |
|---|----------------------------------|--------|--------|--------|----------|
| 3 | UPDATE WITH RECEIPT F TITLE      | NA     | J.L.S. | A.J.L. | 12-2-13  |
| 2 | ADDITIONAL TOPOGRAPHY            | S.P.P. | J.L.S. | A.J.L. | 11-19-13 |
| 1 | ADDED APPROXIMATE CITY/TOWN LINE | NA     | J.L.S. | A.J.L. | 10-25-13 |

| No. | DESCRIPTION OF REVISION | FIELD CREW | DRAWN | APPROVED | DATE |
|-----|-------------------------|------------|-------|----------|------|
|-----|-------------------------|------------|-------|----------|------|

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT WAS BASED WERE MADE IN ACCORDANCE WITH THE "2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS". JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 6(b), 7(b)(1), 7(c), 8, 9, 11(b), 13, 14, 17 and 20(a) OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON NOVEMBER 19, 2013.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH A RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL.

A. JOHN LLOYD  
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #38385

DATE

|                                   |                                  |                                  |  |
|-----------------------------------|----------------------------------|----------------------------------|--|
| FIELD DATE<br>11-11-13<br>10-9-13 | FIELD BOOK NO.<br>13-02<br>13-24 | FIELD BOOK PG.<br>76-77<br>36-39 | ALTA/ACSM<br>LAND TITLE SURVEY<br>McDONALD'S USA, LLC<br>SWAN STREET & CORNISH STREET EXTENSION<br>PARCELS 816-96-11, 816-96-11A, 816-96-11B & 816-96-11C<br>CITY OF METHUEN, ESSEX COUNTY<br>COMMONWEALTH OF MASSACHUSETTS<br>L/C# 020-1133 |
|-----------------------------------|----------------------------------|----------------------------------|--|

|                              |                   |   |
|------------------------------|-------------------|---|
| FIELD CREW<br>S.P.P.<br>T.M. | DRAWN:<br>IDV-AMK | CONTROL POINT<br>ASSOCIATES, INC.<br>352 TURNPIKE ROAD<br>SOUTHBOROUGH, MA 01772<br>508.948.3000 - 508.948.3003 FAX<br>WARREN, NJ 908.668.0099<br>CHALFONT, PA 215.712.9900 |
|------------------------------|-------------------|---|

| REVIEWED: | APPROVED: | DATE     | SCALE  | FILE NO. | DWG. NO. |
|-----------|-----------|----------|--------|----------|----------|
| J.L.S.    | A.J.L.    | 10-23-13 | 1"=20' | CM13231  | 2 OF 2   |