

Site Development Plans

COVER - GENERAL NOTES - LEGEND SHEET

Issued for : Notice of Intent / Planning Board Filings

Date Issued - February 9, 2018

Revised January 10, 2019

Job Number - 2017-100

Index

No.	Drawing Title	Date
C-1	Cover-General Notes-Legend Sheet	2-9-2018
C-2	Existing Conditions Plan	1-4-2018
C-3	Layout & Materials Plan	2-9-2018
C-3A	Fire Truck Turning Plan	2-9-2018
C-4	Grading Plan	2-9-2018
C-5	Drainage & Utility Plan	2-9-2018
C-6	Landscape Development Plan	2-9-2018
C-7	Sediment & Erosion Control Plan	2-9-2018
C-8	Details	2-9-2018
C-9	Details	2-9-2018
C-10	Details	2-9-2018
C-11	Details	2-9-2018

Lighting Plan (by others)

Architectural Plans - By Sylvestri Architects

LEGEND

EXIST	PROP	EXIST	PROP
PROPERTY LINE	PROPERTY LINE	SEWER LINE	SEWER LINE
SEWER LINE	SEWER LINE	WATER LINE	WATER LINE
WATER LINE	WATER LINE	TELEPHONE LINE	TELEPHONE LINE
TELEPHONE LINE	TELEPHONE LINE	EXISTING DRIVE	EXISTING DRIVE
EXISTING DRIVE	EXISTING DRIVE	EXISTING SIDEWALK	EXISTING SIDEWALK
EXISTING SIDEWALK	EXISTING SIDEWALK	EXISTING CONC. DRIVE	EXISTING CONC. DRIVE
EXISTING CONC. DRIVE	EXISTING CONC. DRIVE	EXISTING CONC. SIDEWALK	EXISTING CONC. SIDEWALK
EXISTING CONC. SIDEWALK	EXISTING CONC. SIDEWALK	EXISTING CONC. DRIVE	EXISTING CONC. DRIVE
EXISTING CONC. DRIVE	EXISTING CONC. DRIVE	EXISTING CONC. SIDEWALK	EXISTING CONC. SIDEWALK
EXISTING CONC. SIDEWALK	EXISTING CONC. SIDEWALK	EXISTING CONC. DRIVE	EXISTING CONC. DRIVE

GENERAL NOTES

- ALL PROPOSED WALKWAYS WILL BE HANDICAPPED ACCESSIBLE. ALL PROPOSED SLOPES ON WALKWAYS TO BE LESS THAN 5%.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY EXISTING INFORMATION OR OTHER PROPOSED IMPROVEMENTS. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO J. K. HOLMGREN ENGINEERING. CONTRACTOR WILL REFER TO J. K. HOLMGREN ENGINEERING FOR ALL TECHNICAL COMMENTS FOR RESOLUTION OF THE CONFLICT.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET". (R&R)
- JOINTS BETWEEN NEW BITUMINOUS CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSAIDED.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE THE START OF ANY WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE THE UTILITIES EXACTLY. THE CONTRACTOR SHALL PRESERVE ALL UNDERGROUND UTILITIES. THE CONTRACTOR MUST CALL "DIG SAFE" (AT 1-888-DIG-SAFE) AND THE TOWN OF FRANKLIN UTILITY DIVISION AT LEAST 72 HOURS TO MARK APPROPRIATE UTILITIES BEFORE THE START OF CONSTRUCTION.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND. LAWN AREAS SHALL HAVE A MODIFIED LOAM BORROW PLACED AND SEEDED. THE MODIFIED LOAM BORROW SHALL HAVE A MINIMUM DEPTH OF 4" AND SHALL BE PLACED FLUSH WITH THE TOP OF ADJACENT CURB, EDGING, BERM, OR OTHER SURFACE.
- THE CONTRACTOR SHALL WATER, MOW, AND FERTILIZE LAWN AREAS UNTIL SATISFACTORY GRASS STANDS, AND/OR THE OWNER OR ITS REPRESENTATIVE IS SATISFIED.
- THE CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER, AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY FACILITIES DAMAGED BY CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH SAME, AND COORDINATE WITH THE ENGINEER AS REQUIRED.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND METHODS.
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF OPERATIONS TO THE OWNER AND ITS REPRESENTATIVE. THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE OWNER, ITS ENGINEER OR REPRESENTATIVE.
- FINAL LAYOUT AND STAKING OF ALL PROPOSED FEATURES AND GRADING SHALL BE REVIEWED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO ANY SITE PREPARATION OR CONSTRUCTION. THE CONTRACTOR SHALL NOT ADJUST OR MODIFY THE LAYOUT AND STAKING OF ANY PROPOSED FEATURES UNTIL FINAL APPROVAL FROM THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL REMOVE ALL STUMPS, RUBBISH, AND DEBRIS FROM THE PROJECT SITE. STORAGE OF THESE ITEMS WILL NOT BE PERMITTED ON THE PROJECT SITE. THE CONTRACTOR SHALL LEAVE THE SITE IN A SAFE, CLEAN, AND LEVEL CONDITION AT THE COMPLETION OF THE SITE CLEARANCE WORK.
- ALL ELECTRICAL, TELEPHONE, AND LOCAL FIRE DEPARTMENT CONDUITS ARE TO BE INSTALLED BY THE ELECTRICAL CONTRACTOR. TRENCHING, BACKFILLING AND CONCRETE AND STREET REPAIR SHALL BE PERFORMED BY THE GENERAL CONTRACTOR.
- PROPOSED MANHOLE RIMS & GRATES ARE TO BE SET FLUSH AND CONSISTENT WITH GRADING PLANS. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, GAS GATES, WATER GATES AND OTHER UTILITIES TO FINISHED GRADE WITHIN THE LIMITS OF THE SITE WORK. IF ANY CONFLICTS ARE DISCOVERED NOTIFY OWNERS REPRESENTATIVE.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH THE APPROPRIATE UTILITY COMPANIES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, AS REQUIRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A TOWN OF FRANKLIN PUBLIC WORKS CONSTRUCTION LICENSE.
- A STABILIZED CONSTRUCTION EXIT TO BE PUT IN PLACE PRIOR TO THE START OF CONSTRUCTION.
- REMOVE SNOW FROM SITE AS NECESSARY AND DO NOT PLACE ON TOWN PROPERTY.
- THE MAINTENANCE OF THE DRAINAGE SYSTEM IS THE OWNERS RESPONSIBILITY.
- ANY HYDRANT, FIRE PROTECTION WATER SUPPLY LINE AND ASSOCIATED DEVICES ON SUBJECT PROPERTY SHALL BE MAINTAINED TO THE REQUIREMENTS OF NFPA23.
- THE SITE IS NOT LOCATED IN A DEP. WELL HEAD PROTECTION DISTRICT.
- THE SITE IS NOT LOCATED IN A WHEP ESTIMATED OR PRIORITY HABITAT OF RARE SPECIES.

Proposed Hotel

725 Union Street, Franklin,
Norfolk County, Massachusetts

REVISED

RECEIVED
JAN 14 2019
PLANNING DEPT.

For :

4 SQ DEVELOPMENT LLC

Applicant :

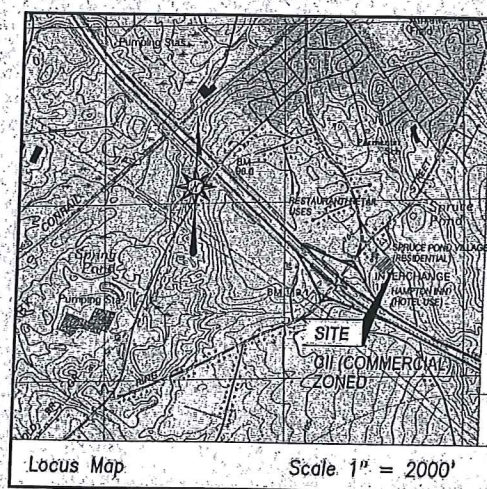
4 SQ Development LLC
C/O Jigar Patel
83 Hartwell Avenue
Lexington, MA 02421
Phone - (516) 933-5601

Owner :

725 Union St LLC
153 Buckskin Drive
Weston, MA 02493

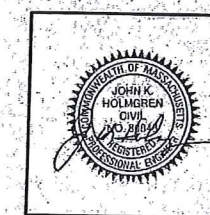
Design Engineer/Surveyor :

J.K. HOLMGREN ENGINEERING INC.
Registered Professional Engineers and Land Surveyors
1024 Pearl Street, Brockton, MA. 02301
Phone - (508) 583-2595 Fax - (508) 588-7518
Email: jholmgrn@jholmgrn.com

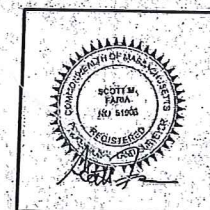


Locus Map

Scale 1" = 2000'



ENGINEER:
JOHN K. HOLMGREN
MASSACHUSETTS REGISTERED
PROFESSIONAL ENGINEER REG# 30848



SURVEYOR:
SCOTT M. FARIA
MASSACHUSETTS REGISTERED
PROFESSIONAL LAND SURVEYOR REG# 51906

JKE J.K. Holmgren Engineering
Registered Professional
Engineers & Land Surveyors

○ = Construction Revision
Blank = Submittal Action
△ = Plan Revision

6	SSR	01.10.19	REVS. PER BETA / CC
5	SSR	12.18.18	REVS. PER BETA / CC
4	SSR	12.04.18	REVS. PER BETA / CC
3	SSR	10.24.18	REVS. FOR FB SUBM.
REV.	BY:	DATE:	REMARKS:
H:\2017\2017-100\CML\2017-100COV6.DWG			
Job # 2017-100			

DATE: 2/9/2018

C-1

DRAWING NUMBER



MAP 303, PARCEL 049
LEONARD S. FRENCH, TRUSTEE
SILVER MAPLE TRUST
#470-490 KING STREET

MAP 303, PARCEL 048
HOTEL BUILDING CORPORATION
#466 KING STREET

MAP 314, PARCEL 046
750 UNION ST LLC
UNION STREET

MAP 314, PARCEL 047
750 UNION ST LLC
UNION STREET

MAP 303, PARCEL 048
HOTEL BUILDING CORP.
#466 KING STREET

MAP 314, PARCEL 16
752 UNION STREET
2.1 ACRES

EXISTING 3-STORY
HOTEL
"HAMPTON INN"
MAP 315, PARCEL 015
CLAREMONT FRANKLIN INN, LLC
#735 UNION STREET

LEGEND

- ☐ TELEPHONE MANHOLE
- ☐ UTILITY POLE/GUY WIRE
- ☐ WATER GATE/SHUT-OFF
- ☐ CATCH BASIN
- ☐ DRAIN MANHOLE
- ☐ SEWER MANHOLE
- ☐ HYDRANT
- ☐ TRANSFORMER
- ☐ CHAIN LINK FENCE
- ☐ GAS GATE
- ☐ CONTOURS
- ☐ SPOT GRADE
- ☐ LIGHT POLE
- ☐ TREES, BUSHES
- ☐ OVERHEAD ELECTRIC
- ☐ SEWER LINE
- ☐ WATER LINE
- ☐ U/G ELECTRIC LINE

ROUTE 495
(PUBLIC NO ACCESS HIGHWAY
STATE HIGHWAY LAYOUT 1989)

GENERAL NOTES:

ASSESSORS MAP : 314 PARCEL : 16

LOCUS DEED REFERENCE : BOOK 33499, PAGE 327

PLAN REFERENCE : PLAN 54 OF 2007

APPLICANT :
4 SQ DEVELOPMENT LLC
83 HARTWELL AVENUE
LEXINGTON, MA 02421

OWNER :
725 UNION ST LLC
153 BUCKSKIN DRIVE
WESTON, MA 02493

THE PROJECT SITE IS LOCATED OUTSIDE OF ANY FLOOD ZONES (ZONE X) AS PER FEMA - FIRM MAP COMMUNITY PANEL 25021C0309E, DATED JULY, 2012.

THE PROJECT SITE IS NOT LOCATED WITHIN AN AREA MAPPED AS PRIORITY HABITAT & ESTIMATED HABITAT FOR RARE SPECIES ACCORDING TO THE MASSACHUSETTS NATURAL HERITAGE & ENDANGERED SPECIES PROGRAM.

THE PROJECT SITE IS NOT LOCATED WITHIN A ZONE II WELLHEAD PROTECTION ZONE.

Assessors Map: 314 Parcel: 16
725 Union Street, Franklin, Massachusetts

PREPARED FOR

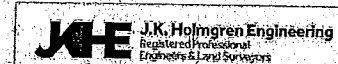
4 SQ DEVELOPMENT LLC

TITLE

EXISTING CONDITIONS PLAN

J.K. HOLMGREN ENGINEERING, INC.

Registered Professional Engineers and Land Surveyors
1024 Pearl Street, Brockton, MA 02301
Phone - (508) 583-2595 Fax - (508) 588-7518
Email : jholmgren@jholmgren.com



SCALE: 1" = 30'

DATE: 1/4/2018

6	SSR 01.10.19	REVS. PER BETA / CG	
5	SSR 12.18.18	REVS. PER BETA / CG	
4	SSR 12.04.18	REVS. PER BETA, DPH & PB	
3	SSR 10.24.18	REVS. FOR P/B SUBM.	
2	SSR 6.13.18	REVS. PER REVIEW ENG.	
NO.	BY	DATE	REMARKS

C-2

DRAWING NUMBER

H:\2017\2017-100\SURVEY\2017-100EC6.DWG
2017-100



SIGN SUMMARY			
M.U.T.C.D. NUMBER	SPECIFICATION		TEXT
	WIDTH	HEIGHT	
R1-1	24"	24"	
R7-8*	12"	18"	
FIRE LANE SIGN (F.L.S.)	12"	18"	

* ADD "VAN ACCESSIBLE" WHERE APPROPRIATE
 ** COLOR AND WORDING PER LOCAL REQUIREMENTS



MAP 303, PARCEL 049
 LEONARD S. FRENCH, TRUSTEE
 SILVER MAPLE TRUST
 #470-490 KING STREET

MAP 303, PARCEL 048
 HOTEL BUILDING CORPORATION
 #466 KING STREET

MAP 314, PARCEL 046
 750 UNION ST LLC
 UNION STREET

MAP 314, PARCEL 047
 750 UNION ST LLC
 UNION STREET

GENERAL NOTES :

ASSESSORS MAP : 314 PARCEL : 16

LOCUS DEED REFERENCE : BOOK 33499, PAGE 327

PLAN REFERENCE : PLAN 54 OF 2007

APPLICANT :
 4 SQ DEVELOPMENT LLC
 83 HARTWELL AVENUE
 LEWINGTON, MA 02421

OWNER :
 725 UNION ST LLC
 153 BUCKSON DRIVE
 WESTON, MA 02453

THE PROJECT SITE IS LOCATED OUTSIDE OF ANY FLOOD ZONES (ZONE 'X') AS PER FEMA - FIRM MAP COMMUNITY PANEL 25021C0309E, DATED JULY, 2012.

THE PROJECT SITE IS NOT LOCATED WITHIN AN AREA MAPPED AS PRIORITY HABITAT & ESTIMATED HABITAT FOR RARE SPECIES ACCORDING TO THE MASSACHUSETTS NATURAL HERITAGE & ENDANGERED SPECIES PROGRAM.

THE PROJECT SITE IS NOT LOCATED WITHIN A ZONE II WELLSHEAD PROTECTION ZONE.

ZONING TABLE		
ZONE: C1 (COMMERCIAL)		
PROPOSED USES: HOTEL		
	REQUIRED	PROVIDED
MIN. LOT AREA	40,000 S.F.	81,726 S.F.
FRONTAGE	175'	240.48'
FRONT SETBACK	40.0'	41.8'
SIDE SETBACK	30.0'	32.8'
REAR SETBACK	30.0'	57.8'
MAX. BLDG. HEIGHT (STORIES)	50'	50' (SEE ARCH.)
MAX. % BLDG. LOT COVERAGE	70%	16%
MIN. OPEN SPACE (GREEN SPACE)	20%	20.4%
PARKING SCHEDULE:		
HOTEL : 1 SPACE / 1 1/8 UNIT	100 X 1,128 = 113	
		** PARKING WAIVER
TOTAL PARKING	113 SPACES	100 SPACES **

Assessors Map: 314 Parcel: 16
 725 Union Street, Franklin, Massachusetts

PREPARED FOR:

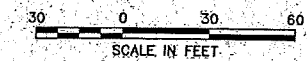
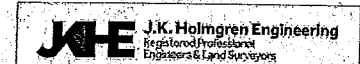
4 SQ DEVELOPMENT LLC

TITLE:

LAYOUT & MATERIALS PLAN

J.K. HOLMGREN ENGINEERING, INC.

Registered Professional Engineers and Land Surveyors
 1024 Pearl Street, Brockton, MA, 02301
 Phone - (508) 583-2595 Fax - (508) 588-7518
 Email : jholmgrn@jholmgrn.com



SCALE: 1" = 30'

DATE: 2/9/2018

NO.	BY	DATE	REMARKS
6	SSR	01.10.19	REVS. PER BETA / CC
5	SSR	12.18.18	REVS. PER BETA / CC
4	SSR	12.04.18	REVS. PER BETA, DFW & PB
3	SSR	10.24.18	REVS. FOR PB SUBM.
2	SSR	6.13.18	REVS. PER REVIEW ENG.

C-3

DRAWING NUMBER

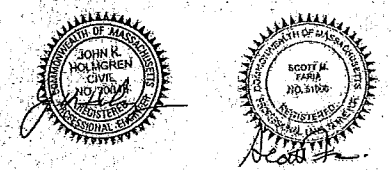
H:\2017\2017-100\CIVIL\DESIGN\2017-100SP6.DWG
 2017-100

LEGEND

- TELEPHONE MANHOLE
- UTILITY POLE/GUY WIRE
- WATER GATE/SHUT-OFF
- CATCH BASIN
- DRAIN MANHOLE
- SEWER MANHOLE
- HYDRANT
- TRANSFORMER
- CHAIN LINK FENCE
- GAS GATE
- CONTOURS
- SPOT GRADE
- LIGHT POLE
- TREES, BUSHES
- OVERHEAD ELECTRIC LINE
- SEWER LINE
- WATER LINE
- U/G ELECTRIC LINE

SITE LEGEND

- PRECAST CONCRETE CURB
- TRASH ENCLOSURE (SEE ARCH. PLANS)
- TRAFFIC FLOW ARROWS (SEE DETAILS)
- 8" WIDE LINE STRIPE
- 4X8' CONG. PAD FOR ELECTRIC CAR CHARGING STATION
- STOP SIGN (RS-B)
- ACCESSIBLE PARKING SIGN
- CATCH BASIN
- DRAIN MANHOLE
- LIGHT POLE (SEE LIGHTING PLAN)
- ACCESSIBLE PARKING SYMBOL
- LANDSCAPED ISLAND
- 8" WIDE CONCRETE WALK
- MONOLITHIC CONCRETE SIDEWALK & CURB
- SEGMENTAL BLOCK RETO WALL W/ 8" CLF. ABOVE
- CONG. WHEEL STOPS (SEE DETAIL)
- 12" LONG CONCRETE PAD
- CONG. TRANS. PAD W/ BOLLARDS (COORD. W/ UTIL. COMPANY)
- IDENTIFICATION SIGN (SEE ARCH. PLANS)
- VERTICAL GRANITE CURB (SEE DETAILS)



ROUTE 495
 (PUBLIC-NO ACCESS HIGHWAY)
 (STATE HIGHWAY LAYOUT 1985)

MAP 303, PARCEL 048
 HOTEL BUILDING CORP.
 #466 KING STREET

EXISTING 3-STORY
 HOTEL
 750 UNION STREET
 CLAREMONT FRANKLIN INN, LLC

EXISTING BIT. CONG. PARKING AREA

EXISTING BIT. CONG. PARKING AREA

EXISTING BIT. CONG. PARKING AREA

EXIST. STORMWATER BASIN

SMH RIM=361.79
 INV.=353.0

SIGHT DISTANCE AT PROPOSED ENTRANCE:
 >300' TO THE WEST
 >350' TO THE EAST

GENERAL NOTES:

ASSESSORS MAP : 314 PARCEL : 16

LOCUS DEED REFERENCE : BOOK 33499, PAGE 327

PLAN REFERENCE : PLAN 54 OF 2007

APPLICANT :
4 SQ DEVELOPMENT LLC
83 HARTWELL AVENUE
LEXINGTON, MA 02421

OWNER :
725 UNION ST LLC
153 BUCKSON DRIVE
WESTON, MA 02463

THE PROJECT SITE IS LOCATED OUTSIDE OF ANY FLOOD ZONES (ZONE X) AS PER FEMA - FIRM MAP, COMMUNITY PANEL 2502100309E, DATED JULY, 2012.

THE PROJECT SITE IS NOT LOCATED WITHIN AN AREA MAPPED AS PRIORITY HABITAT & ESTIMATED HABITAT FOR RARE SPECIES ACCORDING TO THE MASSACHUSETTS NATURAL HERITAGE & ENDANGERED SPECIES PROGRAM.

THE PROJECT SITE IS NOT LOCATED WITHIN A ZONE II WELLHEAD PROTECTION ZONE.

BENCHMARK :
SMH LOCATED AT THE NORTHEAST PROPERTY CORNER (SOUTHERN SMH), RIM = 361.70, (MOVD OF 1929)

Assessors Map: 314 Parcel: 16
725 Union Street, Franklin, Massachusetts

PREPARED FOR:

4 SQ DEVELOPMENT LLC

TITLE:

GRADING PLAN

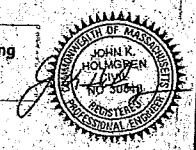
J.K. HOLMGREN ENGINEERING, INC.

Registered Professional Engineers and Land Surveyors

1024 Pearl Street, Brockton, MA 02301

Phone - (508) 583-2595 Fax - (508) 588-7518

Email : jhologren@jhologren.com



SCALE: 1" = 30'

DATE: 2/9/2018

8	SSR 01.10.18	REVS. PER BETA / CC
5	SSR 12.18.18	REVS. PER BETA / CC
4	SSR 12.04.18	REVS. PER BETA, DFW & PB
3	SSR 10.24.18	REVS. FOR PB SUBM.
2	SSR 6.13.18	REVS. PER REVIEW ENG.
NO.	BY	DATE
REMARKS		

C-4

DRAWING NUMBER

H:\2017\2017-100\CIVIL\DESIGN\2017-100SP6.DWG

2017-100

MAP 314, PARCEL 046
750 UNION ST LLC
UNION STREET

MAP 303, PARCEL 048
HOTEL BUILDING CORPORATION
#466 KING STREET

MAP 314, PARCEL 047
750 UNION ST LLC
UNION STREET

MAP 303, PARCEL 049
LEONARD S. FRENCH, TRUSTEE
SILVER MAPLE TRUST
#470-490 KING STREET

GRADING BLOW-UP
SCALE: 1"=10'

GRADING AND DRAINAGE NOTES:

1. THE PROJECT ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (MOVD OF 1929)
2. DEMOLITION DEBRIS, EXCESS AND UNSUITABLE MATERIALS FROM THE DEMOLITION OPERATION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER BY THE CONTRACTOR.
3. DISTURBED AREAS SHALL BE PROTECTED AT ALL TIMES TO CONTROL SEDIMENT TRANSPORT BEYOND THE LIMIT OF WORK.
4. DISTURBED AREAS SHALL BE TREATED WITH WATER DURING EXCAVATION OR APPROVED ALTERNATIVE TO CONTROL THE DUST.
5. ALL DISTURBED AREAS NOT OTHERWISE TREATED SHALL BE STABILIZED WITH 4" LOAM, SEED, & MULCH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AREAS UNTIL VEGETATION HAS BEEN PERMANENTLY ESTABLISHED. SLOPES IN EXCESS OF 3:1 SHALL BE FURTHER STABILIZED WITH EROSION CONTROL BLANKETS (ECB) OR CURLEX OR EQUAL.
6. ALL DRAINAGE STRUCTURES AND PIPING SHALL BE DESIGNED AND INSTALLED FOR 1-24 HOUR RAINFALL.
7. CPP - HIGH DENSITY POLYETHYLENE CORRUGATED PIPE WITH SMOOTH INTERIOR WALL TO MEET AASHTO M-27 PIPE SPECIFICATION OR EQUAL. CPP PIPE USE SHALL BE ALLOWED AS NOTED WITH A DIAMETER UP TO AND INCLUDING 24". BACKFILLING CPP MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS AND SPECIAL CARE MUST BE EXERCISED (SEE AASHTO PRODUCT NOTE 3-115).
8. ROOF DOWNSPOUTS SHALL BE TIED INTO ROOF DRAINS AS SHOWN ON PLAN. ROOF DRAINS TO BE AT LEAST 4" CPP AT 1.00% SLOPE MINIMUM, UNLESS OTHERWISE NOTED. MINIMUM TYPICAL COVER SHALL BE 2 FEET, I.D.O.N.
9. ALL RCP PIPE TO MEET CLASS N SPECIFICATIONS.
10. ALL PIPE INSTALLATIONS SHALL FOLLOW PROJECT SPECIFICATIONS AND PIPE MANUFACTURER RECOMMENDATIONS.
11. INSPECTION AND MAINTENANCE, AS OUTLINED HEREIN, SHALL BE PERFORMED FOUR TIMES WITHIN THE FIRST YEAR OF OPERATION. THENCE, INSPECTIONS AND MAINTENANCE SHALL BE CONDUCTED ON A SEMIANNUAL BASIS (2 TIMES A YEAR) AND AFTER ALL LARGE STORMS. AN INSPECTION REPORT SHALL BE MAINTAINED.
12. ACCUMULATED DEBRIS IN CATCH BASINS, TRENCH GRATES, BASINS AND LEACHING BASINS SHALL BE REMOVED BEFORE IT EXCEEDS 2 FEET IN DEPTH AND DISPOSED OF PROPERLY. BROKEN OR DAMAGED GAS TRAPS/HOODS SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO ENSURE ADEQUATE FUNCTION.

SPECIAL NOTE:
PER TOWN OF FRANKLIN REGULATIONS, RCP SHALL BE USED THROUGHOUT THE PROJECT.
WHERE PROPOSED RCP COVER IS LESS THAN 42", CLASS V RCP WILL BE REQUIRED.

LEGEND

- TELEPHONE MANHOLE
- UTILITY POLE/GUY WIRE
- WATER GATE/SHUT-OFF
- CATCH BASIN
- DRAIN MANHOLE
- SEWER MANHOLE
- HYDRANT
- TRANSFORMER
- CHAIN LINK FENCE
- GAS GATE
- FENCE
- CONTOURS
- SPOT GRADE
- LIGHT POLE
- TREES, BUSHES
- OVERHEAD ELECTRIC
- SEWER LINE
- WATER LINE
- U/G ELECTRIC LINE

ROUTE 495
(PUBLIC ROAD ACCESS HIGHWAY)
(STATE HIGHWAY LAYOUT 1985)

STORMWATER MANAGEMENT SYSTEM #1
NO. 12 STORMWATER 60-740 CHAMBERS
NO. 12 CHAMBERS
CHAMBERS FOR FLOW 18
BOTTOM OF CHAMBERS 365.5
PROP. H-20 LOADING

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

EXISTING BIT. CONC. PARKING AREA

DRAINAGE SCHEDULE

CB1 RIM=366.85 INV.=364.18	DMH A (6" DIA.) RIM=365.6 INV(N)=363.64 INV(N-CB1)=363.64 INV(N-CB2)=360.93 (N)(OUT)=360.93	CB5 RIM=365.94 INV.=362.94
CB2 RIM=363.60 INV.=360.93	CB3 RIM=364.27 INV.=360.91	DMH D RIM=366.50 INV(CB6)=362.48 INV(OUT)=360.61
CB2A RIM=364.54 INV.=361.02	DMH B RIM=366.8 INV.=360.54	DMH H RIM=368.5 INV(N)=362.87 INV(OUT)=362.87
CB4 (DG) RIM=361.79 INV.=359.12	DMH C RIM=363.8 INV(N-CB4)=358.83 INV(N-DMH B)=358.86 INV(N-DMH D)=360.35 INV(OUT)=357.53	DMH J RIM=358.3 INV(N)=356.83 INV(OUT)=354.6
DMH G RIM=367.44 INV(N)=365.30 INV(OUT)=365.30	DMH F RIM=363.50 INV(N)=357.51 WER. @ EL. 358.80 INV(OUT)=357.51	DMH I RIM=368.20 INV(N)=357.22 INV(N-OVERFLOW)=357.44 INV(OUT)=357.22
DMH E RIM=368.80 INV(N)=365.03 INV(OUT)=355.03	DMH G RIM=367.80 INV(N)=365.47 INV(OUT)=355.47	DMH K RIM=368.5 INV(N)=361.70 INV(OUT)=361.65
DMH C1 RIM=367.80 INV(N)=365.47 INV(OUT)=355.47	DMH G2 RIM=368.1 INV(N)=365.72 INV(OUT)=355.72	DMH L RIM=368.5 INV(N)=361.70 INV(OUT)=361.65
DMH G1 RIM=367.80 INV(N)=365.47 INV(OUT)=355.47	DMH G3 RIM=368.6 INV(N)=366.01 INV(OUT)=366.01	DMH M RIM=368.5 INV(N)=361.70 INV(OUT)=361.65
DMH G2 RIM=368.1 INV(N)=365.72 INV(OUT)=355.72	DMH G4 RIM=368.6 INV(N)=366.01 INV(OUT)=366.01	DMH N RIM=368.5 INV(N)=361.70 INV(OUT)=361.65



GENERAL NOTES:

ASSESSORS MAP : 314 PARCEL : 16
 LOCUS DEED REFERENCE : BOOK 33469, PAGE 327
 PLAN REFERENCE : PLAN 54 OF 2007
 APPLICANT : 4 SQ DEVELOPMENT LLC
 83 HARTWELL AVENUE
 LEXINGTON, MA 02421
 OWNER : 725 UNION ST LLC
 153 BUCKSKIN DRIVE
 WESTON, MA 02493
 THE PROJECT SITE IS LOCATED OUTSIDE OF ANY FLOOD ZONES (ZONE X) AS PER FEMA - FIRM MAP COMMUNITY PANEL 25021C0309E, DATED JULY, 2012.
 THE PROJECT SITE IS NOT LOCATED WITHIN AN AREA MAPPED AS PRIORITY HABITAT FOR RARE SPECIES ACCORDING TO THE MASSACHUSETTS NATURAL HERITAGE & ENDANGERED SPECIES PROGRAM.
 THE PROJECT SITE IS NOT LOCATED WITHIN A ZONE II WELLHEAD PROTECTION ZONE.

UTILITY NOTES:

1. 12" MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN ALL UTILITY CROSSINGS.
2. A MINIMUM 10' HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER AND SEWER LINES. WHERE WATER LINES CROSS SEWER LINES, THE SEWER LINE SHALL BE LOCATED WITH A MINIMUM VERTICAL CLEARANCE OF 18" BELOW THE WATER LINE. THE SEWER LINE JOINTS SHALL BE LOCATED UPSTREAM AND AS FAR AWAY FROM THE WATER LINE AS POSSIBLE. WHEN IT IS IMPOSSIBLE TO ACHIEVE HORIZONTAL AND/OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER LINE AND SEWER LINE AT THE CROSSING LOCATION SHALL BE CONSTRUCTED OF MECHANICAL JOINT COBENT-LINED DUCTILE IRON PIPE FOR ONE FULL 20' PIPE LENGTH OR ANOTHER EQUIVALENT THAT IS WATER TIGHT AND STRUCTURALLY SOUND. THE JOINTS FOR BOTH PIPES SHALL BE LOCATED AS FAR AWAY FROM THE CROSSING AS POSSIBLE. BOTH PIPES SHOULD BE PRESSURE TESTED TO 150 PSI TO ENSURE THAT THEY ARE WATER TIGHT.
3. SEWER BUILDING CONNECTIONS SHALL BE 6" MIN. SDR 35 PVC U.O.N. AT A SLOPE OF 1% MINIMUM FROM MANHOLE TO BUILDING UNIT WITH A CLEAN OUT SET AT A DISTANCE OF 10' (U.O.N.) OFF EACH UNIT FOUNDATION.
4. TYPICAL COVER OVER WATER LINE SHALL BE 4" IF LESS THAN 4" OF COVER IS PROVIDED, INSULATE WATER LINE AGAINST FREEZING.
5. GAS, ELECTRIC, DATA/COM IS SHOWN SCHEMATICALLY HEREON. THESE UTILITIES SHALL BE INSTALLED WITH A MINIMUM COVER OF 3 FEET U.O.N. OR OTHERWISE DIRECTED BY THE CONTROLLING UTILITY COMPANY. CONTRACTOR SHALL COORDINATE FINAL LAYOUT WITH APPLICABLE UTILITY COMPANY.
6. ALL COMMERCIAL LIGHTING SHALL DIRECT ALL LIGHT SO AS TO KEEP ALL LIGHTING WITHIN SUBJECT LOT.
7. ALL UTILITY CUTS THROUGH EXISTING CONCRETE OR BITUMINOUS CONCRETE PAVED SURFACES SHALL BE SAW CUT. BACK FILLING OF TRENCH SHALL INCLUDE 12" IN DEPTH FLOWABLE FILL TO BE THE BASE COURSE OF THE SURFACE OF TREATMENT. THE SURFACE TREATMENT SHALL THEN BE REPLACED IN KIND. IF THE BITUMINOUS CONCRETE SURFACE IS WITHIN THE ROADWAY, THE BITUMINOUS CONCRETE TOP COURSE SHALL BE FINISHED WITH INFRARED TREATMENT TO BLEND EXISTING & NEWLY PAVED SURFACES.

GRADING AND DRAINAGE NOTES:

1. THE PROJECT ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (NOV5 OF 1929).
2. DEMOLITION DEBRIS, EXCESS AND UNSUITABLE MATERIALS FROM THE DEMOLITION OPERATION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER BY THE CONTRACTOR.
3. DISTURBED AREAS SHALL BE PROTECTED AT ALL TIMES TO CONTROL SEDIMENT TRANSPORT BEYOND THE LIMIT OF WORK.
4. DISTURBED AREAS SHALL BE TREATED WITH WATER DURING EXCAVATION, OR APPROVED ALTERNATIVE, TO CONTROL THE DUST.
5. ALL DISTURBED AREAS NOT OTHERWISE TREATED SHALL BE STABILIZED WITH 4" LOAM, SEED, & MULCH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AREAS UNTIL VEGETATION HAS BEEN PERMANENTLY ESTABLISHED. SLOPES IN EXCESS OF 3:1 SHALL BE FURTHER STABILIZED WITH EROSION CONTROL BLANKETS (ECB) OF CURLEX OR EQUAL.
6. ALL DRAINAGE STRUCTURES AND PIPING SHALL BE DESIGNED AND INSTALLED FOR: H-20 LOADING.
7. CPP - HIGH DENSITY POLYETHYLENE CORRUGATED PIPE WITH SMOOTH INTERIOR WALL TO MEET AASHTO M-12 PIPE SPECIFICATION OR EQUAL. CPP PIPE USE SHALL BE ALLOWED AS NOTED, WITH A DIAMETER UP TO AND INCLUDING 36". BACKFILLING CPP MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS AND SPECIAL CARE MUST BE EXERCISED (SEE AASHTO PRODUCT NOTE 3.112).
8. ROOF DOWNSPOUTS SHALL BE TIED INTO ROOF DRAINS AS SHOWN ON PLAN. ROOF DRAINS TO BE AT LEAST 4" CPP AT 1.00% SLOPE MINIMUM, UNLESS OTHERWISE NOTED. MINIMUM TYPICAL COVER SHALL BE 2 FEET, U.O.N.
11. ALL RCP PIPE TO MEET CLASS IV SPECIFICATIONS.
12. ALL PIPE INSTALLATIONS SHALL FOLLOW PROJECT SPECIFICATIONS AND PIPE MANUFACTURER RECOMMENDATIONS.
13. INSPECTION AND MAINTENANCE, AS OUTLINED HEREIN, SHALL BE PERFORMED FOUR TIMES WITHIN THE FIRST YEAR OF OPERATION. THENCE INSPECTIONS AND MAINTENANCE SHALL BE CONDUCTED ON A SEMIANNUAL BASIS (2 TIMES A YEAR) AND AFTER ALL LARGE STORMS. AN INSPECTION REPORT SHALL BE MAINTAINED.
14. ACCUMULATED DEBRIS IN CATCH BASINS, TRENCH GRATES, BASINS AND LEACHING BASINS SHALL BE REMOVED BEFORE IT EXCEEDS 2 FEET IN DEPTH AND DISPOSED OF PROPERLY. BROKEN OR DAMAGED GAS TRAPS/ADEQUATE FUNCTION.

SPECIAL NOTE
 PER TOWN OF FRANKLIN REGULATIONS, RCP SHALL BE USED THROUGHOUT THE PROJECT.
 WHERE PROPOSED RCP COVER IS LESS THAN 42", CLASS V RCP WILL BE REQUIRED.

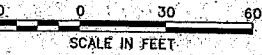
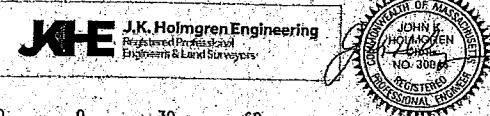
Assessors Map: 314 Parcel: 16
 725 Union Street, Franklin, Massachusetts

4 SQ DEVELOPMENT LLC

DRAINAGE & UTILITY PLAN

J.K. HOLMGREN ENGINEERING, INC.

Registered Professional Engineers and Land Surveyors
 1024 Pearl Street, Brockton, MA 02301
 Phone - (508) 583-2595 Fax - (508) 588-7818
 Email : jholmgren@jholmgren.com



SCALE: 1" = 30' DATE: 2/9/2018

NO.	BY	DATE	REMARKS
6	SSR	01.10.19	REVS. PER BETA / CO
5	SSR	12.18.18	REVS. PER BETA / CO
4	SSR	12.04.18	REVS. PER BETA, DPW & PB
3	SSR	10.24.18	REVS. FOR PB SUBM.
2	SSR	6.13.18	REVS. PER REVIEW ENG.

C-5
 DRAWING NUMBER

H:\2017\2017-100\CIVIL\DESIGN\2017-100SP6.DWG
 2017-100

LEGEND

- TELEPHONE MANHOLE
- UTILITY POLE/GUY WIRE
- WATER GATE/SHUT-OFF
- CATCH BASIN
- DRAIN MANHOLE
- SEWER MANHOLE
- HYDRANT
- TRANSFORMER
- CHAIN LINK FENCE
- GAS GATE
- CONTOURS
- SPOT GRADE
- LIGHT POLE
- TREES, BUSHES
- OVERHEAD ELECTRIC
- SEWER LINE
- WATER LINE
- U/G ELECTRIC LINE

STORMWATER MANAGEMENT SYSTEM #1
 NO. OF ROWS: 6
 CHAMBERS PER ROW: 10
 BOTTOM OF STONE: 364.5
 BOTTOM OF COUPLER: 364.0
 PROP. INV(N)=365.0

MAP 303, PARCEL 048
 HOTEL BUILDING CORPORATION
 #466 KING STREET

ROUTE 495
 (STATE HIGHWAY LAYOUT 1995)

MAP 314, PARCEL 046
 750 UNION ST LLC
 UNION STREET

MAP 314, PARCEL 047
 750 UNION ST LLC
 UNION STREET

MAP 314, PARCEL 005
 750 UNION ST LLC
 #750 UNION STREET

MAP 315, PARCEL 015
 CLAREMONT FRANKLIN INN, LLC
 #735 UNION STREET

MAP 303, PARCEL 048
 HOTEL BUILDING CORPORATION
 #466 KING STREET

MAP 303, PARCEL 049
 LEONARD S. FRENCH, TRUSTEE
 SILVER MAPLE TRUST
 #470-490 KING STREET



MAP 314, PARCEL 046
750 UNION ST LLC
UNION STREET

MAP 303, PARCEL 048
HOTEL BUILDING CORPORATION
#466 KING STREET

MAP 303, PARCEL 049
LEONARD S. FRENCH, TRUSTEE
SILVER MAPLE TRUST
#470-490 KING STREET

MAP 314, P
750 UNION
UNION :

LANDSCAPE SCHEDULE					
SYMBOL NAME	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
AROC	7	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3 1/2" - 4" CAL.	B & B
GTIS	3	CELESTIA TRICANTHOS NERVIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	3 1/2" - 4" CAL.	B & B
LT	1	RHOENODENDRON TULIPIFERA	TULIP TREE	3 1/2" - 4" CAL.	B1 & B
LSR	7	LIGUAMBER STRACIFLUA	SWEETGUM	3 1/2" - 4" CAL.	B1 & B
BP	1	BETULA PAPPYRIFERA	PAPER BIRCH	3 1/2" - 4" CAL.	B & B
PS	11	PIHUS STROBUS	EASTERN WHITE PINE	5-8' HT.	B & B
EPG	8	PICEA PUNGENS 'GLAUCO'	COLORADO SPRUCE	6-7' HT.	B & B
TO	11	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	5-6' HT.	CONTAINER
RCER	10	RHOENODENDRON CATAMBENSE 'ENGLISH ROSEUM'	ENG. ROSEUM RHODODENDRON	18-24" HT.	CONTAINER
RHC	31	RHOENODENDRON X. DOTSUM 'HINCHINSON'	HINCHINSON AZALEA	15-18" HT.	CONTAINER
KL	23	KALIA LATIFOLIA	MOUNTAIN LAUREL	18-24" HT.	CONTAINER
TH	2	TAXUS MEDIA 'HICKS'	HICKS YEW	30-36" HT.	CONTAINER
TMD	30	TAXUS MEDIA 'DENSIFORMIS'	DENSE SPREADING YEW	12-15" HT.	CONTAINER
TH	6	TAXUS CANADENSIS	CANADIAN YEW	30-36" HT.	CONTAINER
VD	31	VIBURNUM DENTATUM	ARROWOOD	30-36" HT.	CONTAINER
IV	38	ILEX VERTICILLATA	WINTERBERRY	18-24" HT.	CONTAINER
HO	13	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	18-24" HT.	CONTAINER

NOTE: PROPOSED PLANTINGS SHALL COME FROM THE BEST DEVELOPMENT PRACTICES (BDDP) GUIDEBOOK.

LANDSCAPE NOTES:

- CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS AND EQUIPMENT IN ORDER TO COMPLETE THE WORK.
- ALL SEEDING AND / OR SOO AREAS SHALL RECEIVE 6" OF LOAM OR TOPSOIL.
- ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF DOUBLE SHREDDED HARDWOOD MULCH.
- PLANTING SOIL MIX SHALL CONSIST OF 1/3 SPHAGNUM PEAT MOSS AND 2/3 FERTILE FIELD LOAM BY VOLUME.
- ALL PLANTINGS AT DRIVEWAY ENTRANCES WILL BE MAINTAINED TO A HEIGHT OF THREE FEET OR LESS AS TO NOT OBSCURE TRAFFIC VISIBILITY.
- ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
- ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING GROWING SEASON.
- REFERENCE IS MADE TO THE "MULCH LAW", THE REVISED REGULATION, 527 CMR 1 - 10.14.10.4. PROHIBITS THE NEW APPLICATION OF MULCH WITHIN 18 INCHES AROUND COMBUSTIBLE EXTERIORS OF BUILDINGS, SUCH AS WOOD OR VINYL, BUT NOT BRICK OR CONCRETE. AN 18" STRIP OF 1 1/2" - 2 1/2" STONE SHALL BE PLACED AT A DEPTH OF 6" AROUND EXISTING WOOD AND VINYL BUILDINGS.

Assessors Map: 314, Parcel: 16
725 Union Street, Franklin, Massachusetts

PREPARED FOR

4 SQ DEVELOPMENT LLC

TITLE

LANDSCAPE DEVELOPMENT PLAN

J.K. HOLMGREN ENGINEERING, INC.

Registered Professional Engineers and Land Surveyors
1024 Peard Street, Brockton, MA, 02301
Phone - (508) 583-2595 Fax - (508) 588-7518
Email: jholmgren@jholmgren.com

JKE J.K. Holmgren Engineering
Registered Professional Engineers & Land Surveyors



30 0 30 60
SCALE IN FEET

SCALE: 1" = 30'

6	SSR 01.10.19	REVS. PER BETA / CC	
5	SSR 12.18.18	REVS. PER BETA / CC	
4	SSR 12.04.18	REVS. PER BETA, DPW & PB	
3	SSR 10.24.18	REVS. FOR PB SUBM.	
2	SSR 6.13.18	REVS. PER REVIEW ENG.	
NO.	BY	DATE	REMARKS

DATE: 02/09/2018

C-6

DRAWING NUMBER

H:\2017\2017-100\CIVIL\DESIGN\2017-100SP6.DWG
2017-100

SEEDING SPECIFICATIONS:

TEMPORARY SEEDING:
SEED MIXTURE:
RYEGRASS

APPLICATION RATE:
1 LB/1000 SF

PERMANENT SEEDING IN LANDSCAPED AREAS:
SEED MIXTURE:
PERENNIAL RYEGRASS
CREEPING RED FESCUE
REDTOP

APPLICATION RATE:
85 LBS/1000 SF
52 LBS/1000 SF
7 LBS/1000 SF

PERMANENT SEEDING IN SLOPED AREAS:
SEED MIXTURE:
PERENNIAL RYEGRASS
CREEPING RED FESCUE
REDTOP
ALSIE CLOVER
BROSFOOT TREAT

APPLICATION RATE:
30 LBS/1000 SF
35 LBS/1000 SF
5 LBS/1000 SF
5 LBS/1000 SF
5 LBS/1000 SF

BIORETENTION AREA LANDSCAPE SCHEDULE

SYMBOL NAME	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
AR	2	ABELGARDNER CANADENSIS	SHADBLOW	6-8' HT.	B & B
IV	2	ILEX VERTICILLATA	WINTERBERRY	15-18" HT.	CONTAINER
CA	2	CLETHRA ALNFOLIA	SWEET PEPPERBUSH	12-15" HT.	CONTAINER
VD	2	VIBURNUM DENTATUM	ARROWWOOD	16-24" HT.	CONTAINER
OS	2	ONOCLEA SENSIBILIS	SENSITIVE FERN	-	2-OT. POT

NOTE: PROPOSED BIORETENTION PLANTINGS SHALL COME FROM THE BEST DEVELOPMENT PRACTICES (BDDP) GUIDEBOOK.

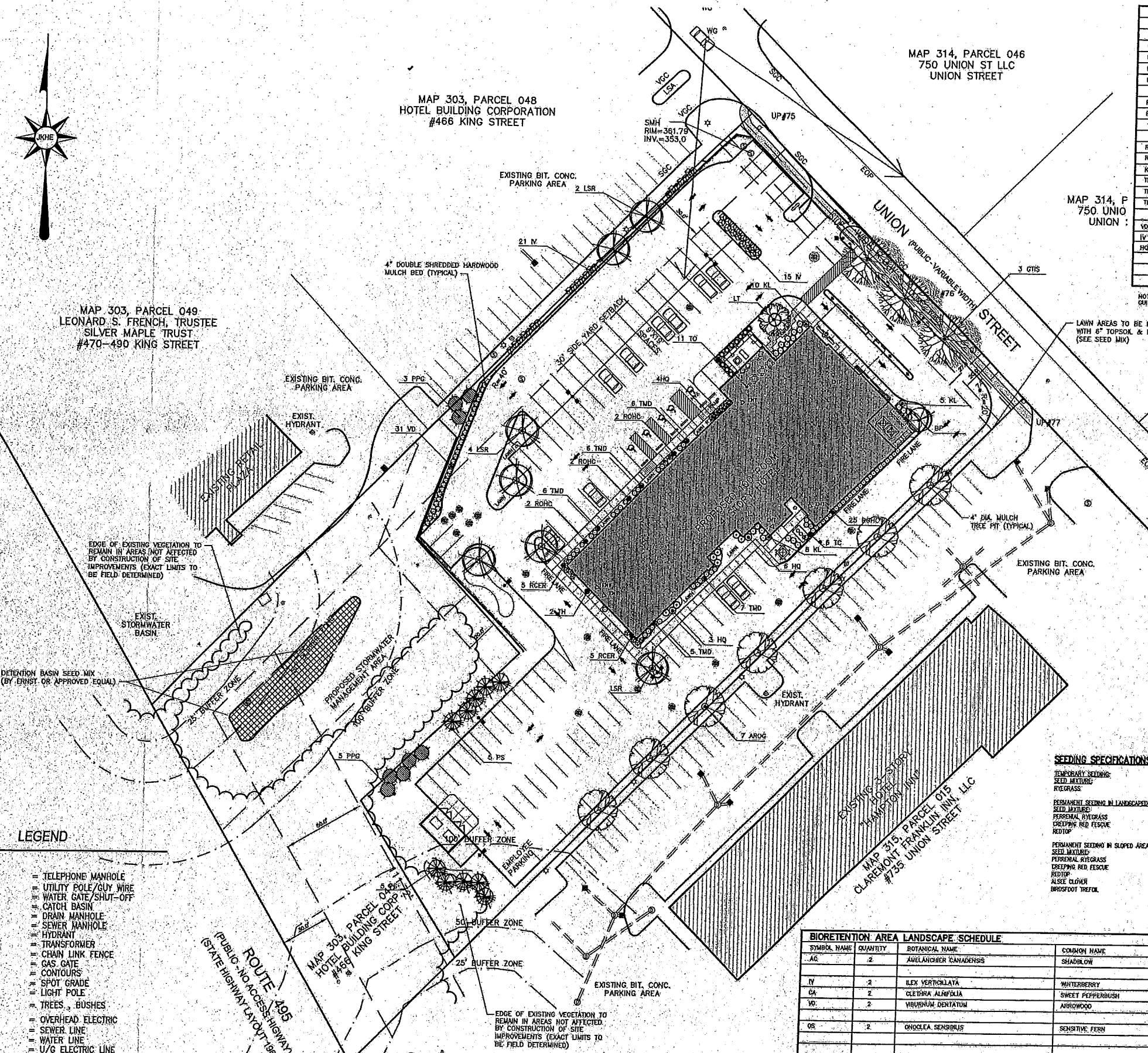
LEGEND

- TELEPHONE MANHOLE
- UTILITY POLE/GUY WIRE
- WATER GATE/SHUT-OFF
- CATCH BASIN
- DRAIN MANHOLE
- SEWER MANHOLE
- HYDRANT
- TRANSFORMER
- CHAIN LINK FENCE
- GAS GATE
- CONTOURS
- SPOT GRADE
- LIGHT POLE
- TREES, BUSHES
- OVERHEAD ELECTRIC
- SEWER LINE
- WATER LINE
- U/G ELECTRIC LINE

ROUTE 495
(PUBLIC-NO ACCESS HIGHWAY)

MAP 303, PARCEL 048
HOTEL BUILDING CORP.
#466 KING STREET

MAP 314, PARCEL 015
CLAREMONT FRANKLIN INN, LLC
#725 UNION STREET



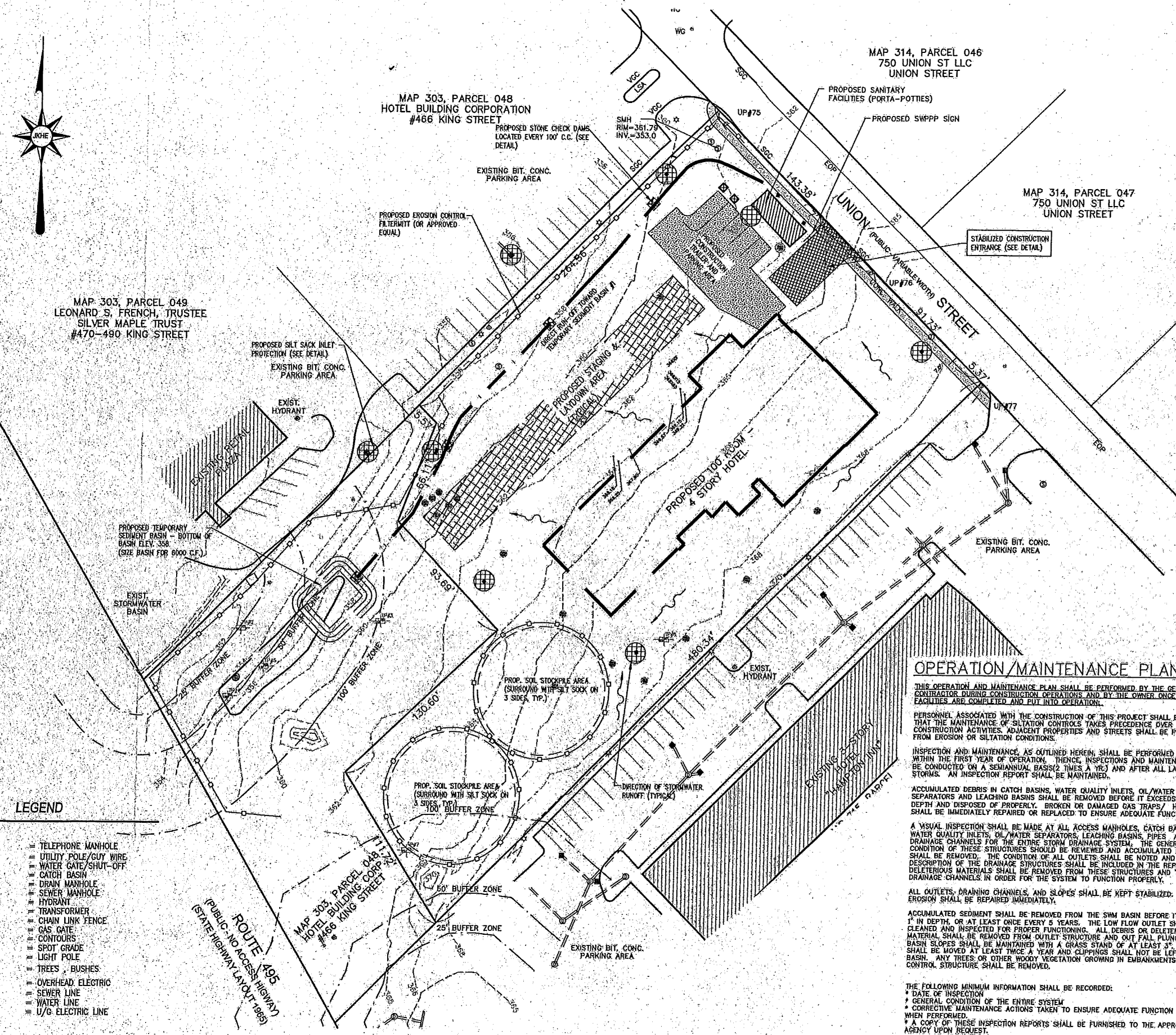


MAP 303, PARCEL 049
LEONARD S. FRENCH, TRUSTEE
SILVER MAPLE TRUST
#470-490 KING STREET

MAP 303, PARCEL 048
HOTEL BUILDING CORPORATION
#466 KING STREET

MAP 314, PARCEL 046
750 UNION ST LLC
UNION STREET

MAP 314, PARCEL 047
750 UNION ST LLC
UNION STREET



LEGEND

- TELEPHONE MANHOLE
- UTILITY POLE/GUY WIRE
- WATER GATE/SHUT-OFF
- CATCH BASIN
- DRAIN MANHOLE
- SEWER MANHOLE
- HYDRANT
- TRANSFORMER
- CHAIN LINK FENCE
- GAS GATE
- CONTOURS
- SPOT GRADE
- LIGHT POLE
- TREES, BUSHES
- OVERHEAD ELECTRIC
- SEWER LINE
- WATER LINE
- U/G ELECTRIC LINE

CONSTRUCTION SEQUENCE

1. INSTALL SILT SOCKS TO ESTABLISH THE LIMIT OF WORK AS SHOWN ON PLAN.
2. CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE AREA AS SHOWN ON DETAIL #610.
3. DISCHARGES FROM DEWATERING OF EXCAVATIONS SHALL NOT BE DIVERTED DIRECTLY INTO ANY WETLANDS OR EXISTING STORM DRAINS WITHOUT PRETREATMENT VIA SETTLING BASINS.
4. INSTALL STONE CHECK DAMS ALONG CENTER OF SWALES AT 100' O.C., AS NECESSARY.
5. CLEAR AND GRUB SITE WITHIN THE LIMIT OF WORK.
6. CONSTRUCT SWM BASIN TO BE USED AS SEDIMENT TRAP. INSTALL LOW FLOW PERFORATED PIPE WITH FILTER FABRIC AND STONE. DO NOT INSTALL LOW FLOW ORIFICE CAP UNTIL SITE IS FULLY STABILIZED.
7. ESTABLISH ROUGH SUB GRADES FOR PARKING LOT AND BUILDING PLATFORM.
8. PERFORM BUILDING AND SITE CONSTRUCTION
9. INSPECT AND MAINTAIN EROSION CONTROL MEASURES AFTER RAINFALL EVENTS AND A MINIMUM OF ONCE PER WEEK.
10. REMOVE SEDIMENT BUILDUP AT EROSION CONTROL DEVICES AS NEEDED. REDISTRIBUTE MATERIAL OVER SITE IN CONFORMANCE WITH EARTHWORK SPECIFICATIONS.
11. AS DRAINAGE STRUCTURES ARE INSTALLED, INSTALL FILTER FABRIC (SILT SOCKS) AROUND NEW STRUCTURES IN ACCORDANCE WITH DETAIL #624 AND MAINTAIN THEM UNTIL PAVEMENT IS IN PLACE AND VEGETATION IS ESTABLISHED. ALL OUTFALLS SHALL BE IMMEDIATELY STABILIZED WITH STONE PROTECTION AS REQUIRED.
12. ALL CUT AND FILL SLOPES SHALL BE TEMPORARILY STABILIZED WITH TOP SOIL, SEED AND MULCH OR CURBLEY AS REQUIRED IF CONSTRUCTION ACTIVITY CEASES ON SAID SLOPES FOR A PERIOD OF SEVEN DAYS OR GREATER. ALL SLOPES SHALL BE PERMANENTLY STABILIZED AS REQUIRED IMMEDIATELY UPON COMPLETION OF FINAL GRADING.
13. COMPLETE FINISH GRADING AND STABILIZATION OF SITE. PLACE FINAL PAVING COURSE.
14. REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES, DRAIN MANHOLES, PIPES AFTER COMPLETION OF CONSTRUCTION. REMOVE AND REGRADE TEMPORARY BERMS, SWALES, CHECK DAMS, ETC. STABILIZE DISTURBED AREAS.
15. CLEAN OUT ALL SEDIMENT FROM SWM BASIN AND OUTLET STRUCTURES. REGRADE TO CONTOURS PER DESIGN. STABILIZE ALL SLOPES AS REQUIRED. REPLACE FILTER FABRIC AND 1" CLEAN STONE AROUND LOW FLOW OUTLET PIPE. INSTALL LOW FLOW ORIFICE CAP PER DETAIL.
16. REMOVE SILT SOCKS UPON ESTABLISHMENT OF PERMANENT GROUND COVER. STABILIZE ALL AREAS WHERE SILT SOCKS WERE REMOVED.

NOTES

1. MAINTAIN A STOCKPILE OF SILT SOCKS AND 3 CUBIC YARDS OF RIP-RAP ON SITE AT ALL TIMES UNTIL A PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
2. STUMPS FROM THE CLEARING OPERATION SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A LEGAL MANNER.
3. DISTURBED AREAS SHALL BE PROTECTED AT ALL TIMES TO CONTROL SEDIMENT TRANSPORT BEYOND THE LIMIT OF WORK.
4. DISTURBED AREAS SHALL BE TREATED WITH WATER DURING EXCAVATION, OR APPROVED ALTERNATIVE, TO CONTROL THE DUST.

OPERATION/MAINTENANCE PLAN

THIS OPERATION AND MAINTENANCE PLAN SHALL BE PERFORMED BY THE GENERAL CONTRACTOR DURING CONSTRUCTION OPERATIONS AND BY THE OWNER ONCE THE FACILITIES ARE COMPLETED AND PUT INTO OPERATION.

PERSONNEL ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT SHALL BE INFORMED THAT THE MAINTENANCE OF SITUATION CONTROLS TAKES PRECEDENCE OVER NORMAL CONSTRUCTION ACTIVITIES. ADJACENT PROPERTIES AND STREETS SHALL BE PROTECTED FROM EROSION OR SILTATION CONDITIONS.

INSPECTION AND MAINTENANCE, AS OUTLINED HEREIN, SHALL BE PERFORMED FOUR TIMES WITHIN THE FIRST YEAR OF OPERATION. THENCE, INSPECTIONS AND MAINTENANCE SHALL BE CONDUCTED ON A SEMIANNUAL BASIS (2 TIMES A YEAR) AND AFTER ALL LARGE STORMS. AN INSPECTION REPORT SHALL BE MAINTAINED.

ACCUMULATED DEBRIS IN CATCH BASINS, WATER QUALITY INLETS, OIL/WATER SEPARATORS AND LEACHING BASINS SHALL BE REMOVED BEFORE IT EXCEEDS 2 FEET IN DEPTH AND DISPOSED OF PROPERLY. BROKEN OR DAMAGED GAS TRAPS/ HOODS SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO ENSURE ADEQUATE FUNCTION.

A VISUAL INSPECTION SHALL BE MADE AT ALL ACCESS MANHOLES, CATCH BASINS, WATER QUALITY INLETS, OIL/WATER SEPARATORS, LEACHING BASINS, PIPES AND DRAINAGE CHANNELS FOR THE ENTIRE STORM DRAINAGE SYSTEM. THE GENERAL CONDITION OF THESE STRUCTURES SHOULD BE REVIEWED AND ACCUMULATED DEBRIS SHALL BE REMOVED. THE CONDITION OF ALL OUTLETS SHALL BE NOTED AND A DESCRIPTION OF THE DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE REPORT. DELETERIOUS MATERIALS SHALL BE REMOVED FROM THESE STRUCTURES AND THE DRAINAGE CHANNELS IN ORDER FOR THE SYSTEM TO FUNCTION PROPERLY.

ALL OUTLETS, DRAINING CHANNELS, AND SLOPES SHALL BE KEPT STABILIZED. ANY EROSION SHALL BE REPAIRED IMMEDIATELY.

ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SWM BASIN BEFORE IT EXCEEDS 1' IN DEPTH, OR AT LEAST ONCE EVERY 5 YEARS. THE LOW FLOW OUTLET SHALL BE CLEANED AND INSPECTED FOR PROPER FUNCTIONING. ALL DEBRIS OR DELETERIOUS MATERIAL SHALL BE REMOVED FROM OUTLET STRUCTURE AND OUT FALL PLUNGE. POOL BASIN SLOPES SHALL BE MAINTAINED WITH A GRASS STAND OF AT LEAST 3". GRASS SHALL BE MOVED AT LEAST THICE A YEAR AND CLIPPINGS SHALL NOT BE LEFT IN BASIN. ANY TREES OR OTHER WOODY VEGETATION GROWING IN EMBANKMENTS OR NEAR CONTROL STRUCTURE SHALL BE REMOVED.

THE FOLLOWING MINIMUM INFORMATION SHALL BE RECORDED:
 * DATE OF INSPECTION
 * GENERAL CONDITION OF THE ENTIRE SYSTEM
 * CORRECTIVE MAINTENANCE ACTIONS TAKEN TO ENSURE ADEQUATE FUNCTION AND WHEN PERFORMED
 * A COPY OF THESE INSPECTION REPORTS SHALL BE FURNISHED TO THE APPROPRIATE AGENCY UPON REQUEST.

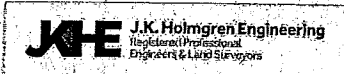
Assessors Map: 314 Parcel: 16
725 Union Street, Franklin, Massachusetts

PREPARED FOR:
4 SQ DEVELOPMENT LLC

SEDIMENT & EROSION CONTROL PLAN

J.K. HOLMGREN ENGINEERING, INC.

Registered Professional Engineers and Land Surveyors
1024 Pearl Street, Brockton, MA, 02301
Phone - (508) 583-2595 Fax - (508) 588-7518
Email: jholmgren@jholmgren.com



SCALE: 1" = 30'

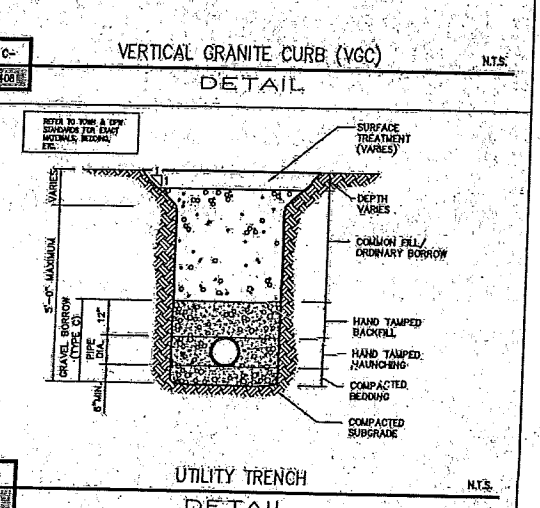
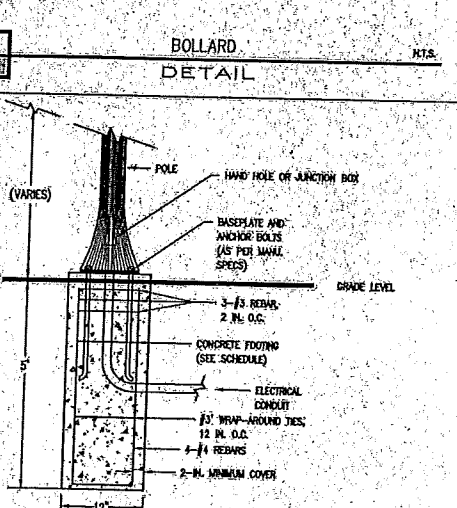
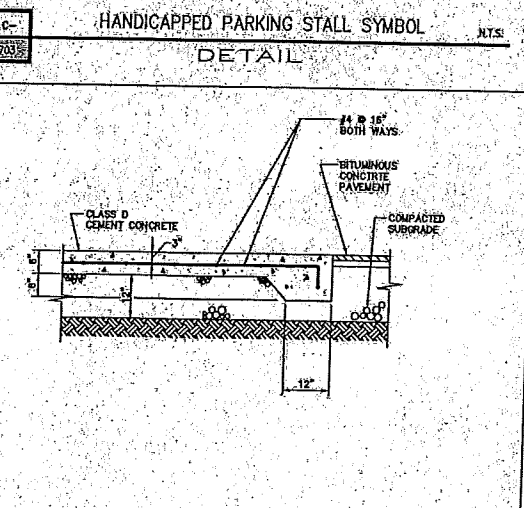
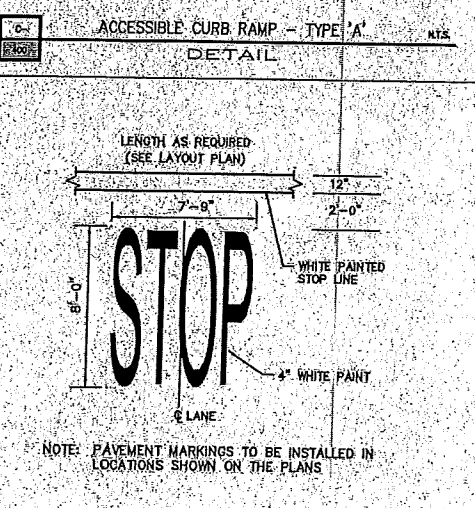
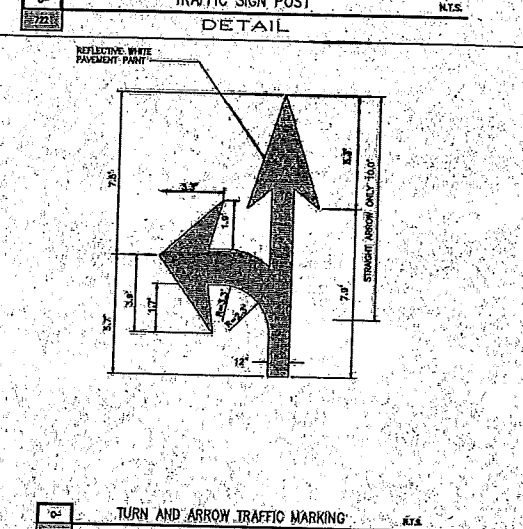
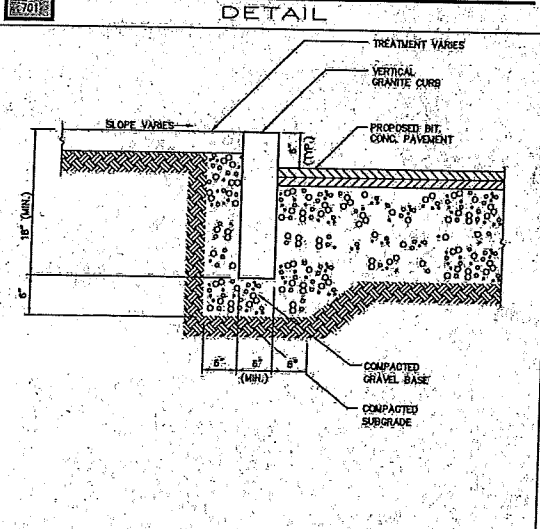
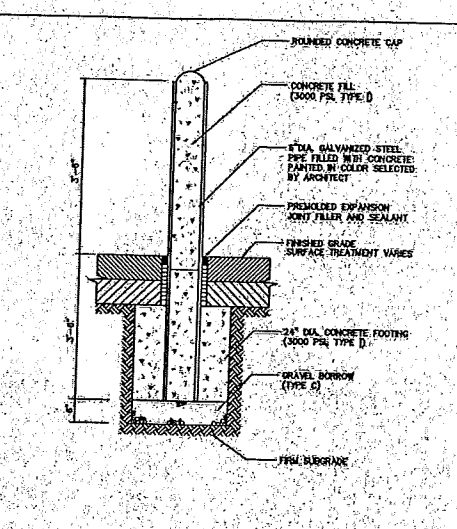
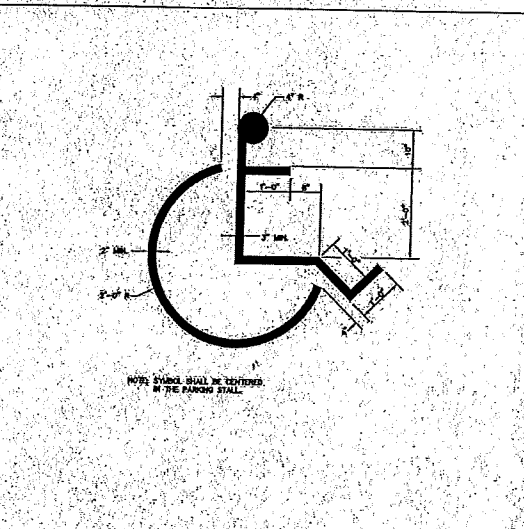
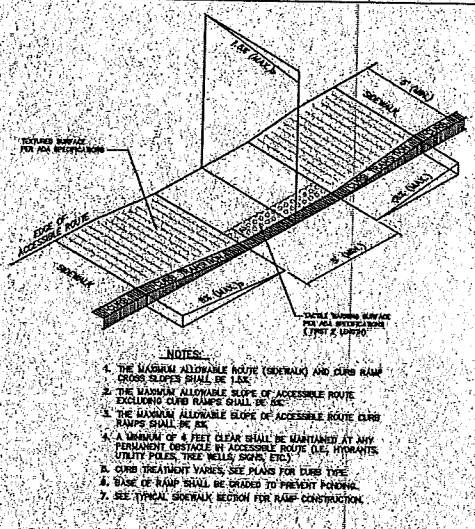
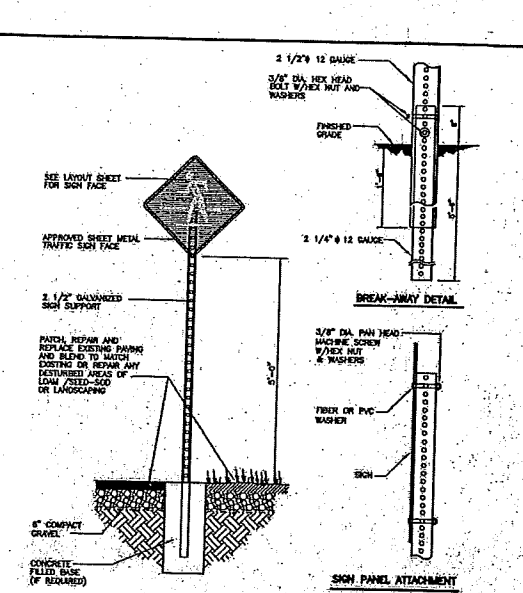
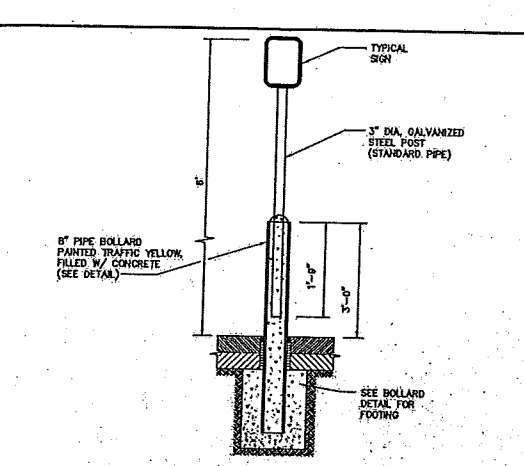
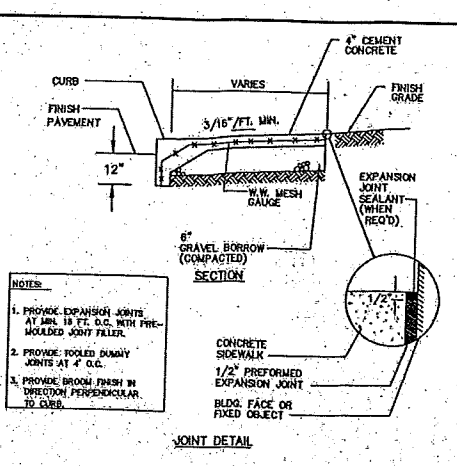
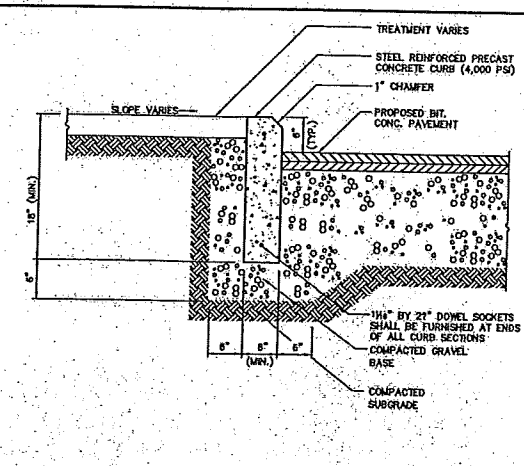
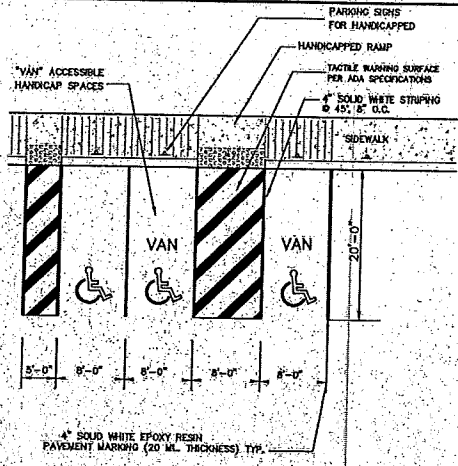
DATE: 2/9/2018

NO.	BY	DATE	REMARKS
6	SSR	01.10.19	REVS. PER BETA / CD
5	SSR	12.18.18	REVS. PER BETA / CC
4	SSR	12.04.18	REVS. PER BETA, DPW & PB
3	SSR	10.24.18	REVS. FOR PB SUBM.
2	SSR	16.13.18	REVS. PER REVIEW ENG.

C-7

DRAWING NUMBER

H:\2017\2017-100\CIVIL\DESIGN\2017-100SP6.DWG
2017-100



Assessors Map: 314 Parcel: 16
725 Union Street, Franklin, Massachusetts
PREPARED FOR
4 SQ DEVELOPMENT LLC

TITLE
DETAIL SHEET

J.K. HOLMGREN ENGINEERING, INC.
Registered Professional Engineers and Land Surveyors
1024 Pearl Street, Brockton, MA 02301
Phone - (608) 588-2595 Fax - (608) 588-7518
Email : jholmgren@jkhengineering.com

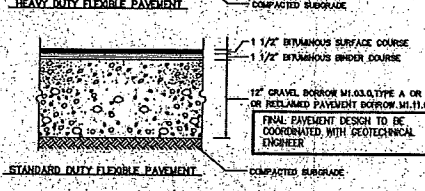
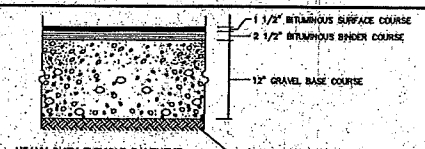
JKE J.K. Holmgren Engineering
Registered Professional Engineers & Land Surveyors

DATE: 2/9/2018

6	SSR 01.10.19	REVS. PER BETA / CC	
5	SSR 12.18.18	REVS. PER BETA / CC	
4	SSR 12.04.18	REVS. PER BETA, DPW & PB	
3	SSR 10.24.18	REVS. FOR PB SUBM.	
1	SSR 3.1.18	REVS. PER CONS. COMM.	
NO.	BY	DATE	REMARKS

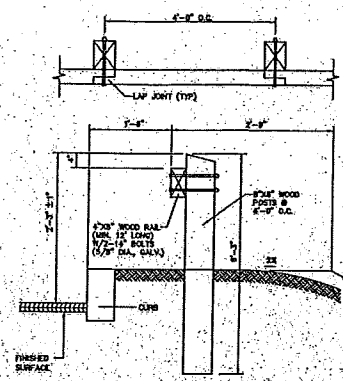
HA2017\2017-100\CDM\DESIGN\2017-100CDSS.DWG
2017-100

C-8
DRAWING NUMBER

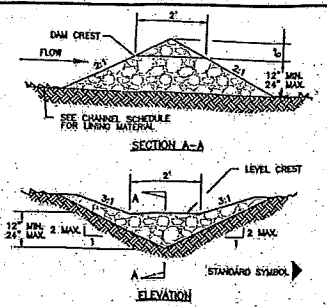


- COMPOSITION AND COMPACTION ACCEPTANCE TESTS**
1. OBTAIN SAMPLES FROM PAVEMENT TO PREPARE COMPACTION WITH MS1110.
 2. PAVEMENT DENSITY AS OBTAINED IN MS1110.
 3. ALL SAMPLES TO BE TAKEN IN ACCORDANCE WITH MS1110.
 4. MATERIALS SHALL MEET OR EXCEED THE REQUIREMENTS SPECIFIED IN SECTION MS1110 DESIGN IN MATERIALS AND THE FOLLOWING SUBSECTIONS:
 - MINERAL AGGREGATE (MS1104) - BITUMINOUS MATERIALS (MS1105)
 - MINERAL FILLER (MS1109) - COMPOSITION OF BASE COURSE (MS1110)
 5. THE BITUMINOUS BINDER COURSE SHALL BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT SECTIONS/PROVISIONS OF SECTION AND FOR CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE 1-1.
 6. CLASS I BITUMINOUS PAVEMENT TYPE 1-1 REQUIRES THE SAME TESTING AS BASE COURSE AND SHALL HAVE A MINIMUM OF 95% COMPACTION TESTING TO BE COMPLETED BY METHODS OUTLINED IN MS1110.

BITUMINOUS CONCRETE PAVEMENT SECTIONS N.T.S.
DETAIL

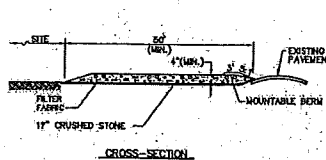
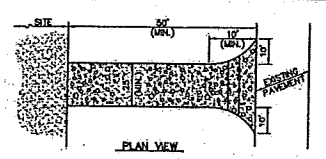


WOOD GUARD RAIL N.T.S.
DETAIL



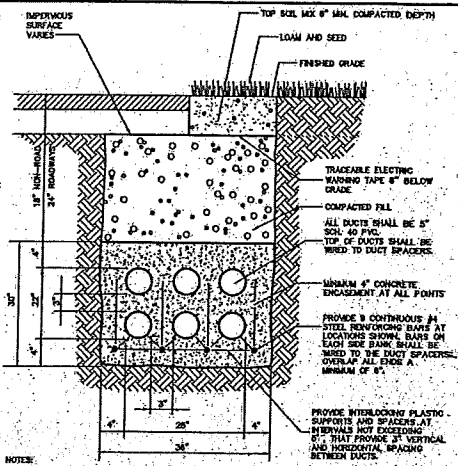
- SPECIFICATIONS**
1. THE STONE SHALL BE CRUSHED STONE (GRAVEL MAY BE USED IF CRUSHED STONE IS NOT AVAILABLE) WHICH MEETS AREA SIZE NO. 2 OR 3A.
 2. THE CREST OF THE CHECK DAM SHALL BE SIX INCHES LOWER THAN THE OUTER EDGES, WITH A MAXIMUM CREST HEIGHT OF 24 INCHES AND A MINIMUM OF 12 INCHES.
 3. THE MINIMUM STRUCTURE LENGTH SHALL BE SIX FEET.
 4. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY SO AS TO ENSURE PROPER FUNCTIONING OF STRUCTURE.
 5. ALL ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN ITS DEPTH EQUALS ONE-HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.
 6. CHECK DAMS SHALL BE REMOVED UPON APPROVAL BY INSPECTING AUTHORITY, UNLESS OTHERWISE NOTED THAT DAM IS TO REMAIN IN PLACE.
 7. UPON REMOVAL, DISTURBED AREAS SHALL BE PROPERLY STABILIZED.

STONE CHECK DAM N.T.S.
DETAIL



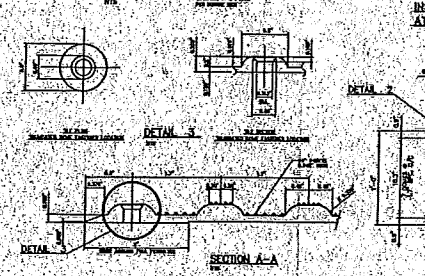
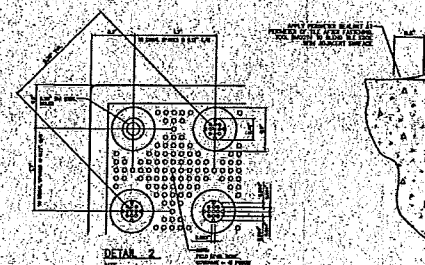
- NOTES**
1. ENTRANCE WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE PAVEMENT WIDTH AT POINTS WHERE PROGRESS OR EGRESS OCCURS.
 2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT, SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. REPAIR SHALL BE FORTHWITH.

STABILIZED CONSTRUCTION EXIT N.T.S.
DETAIL

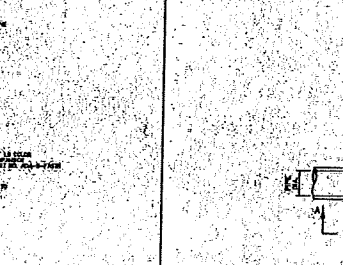


- NOTES**
1. 4000 PSI CONCRETE FILL AROUND DUCTS.
 2. CONCRETE MAY BE POURED DIRECTLY INTO OPEN TRENCH WITHOUT FORMWORK.
 3. DUCT SPACERS TO BE USED AT 8" ON CENTERS BETWEEN DUCTS.

UTILITY DUCT BANK N.T.S.
DETAIL



HANDICAPPED TACTILE WARNING TILE SURFACE N.T.S.
DETAIL

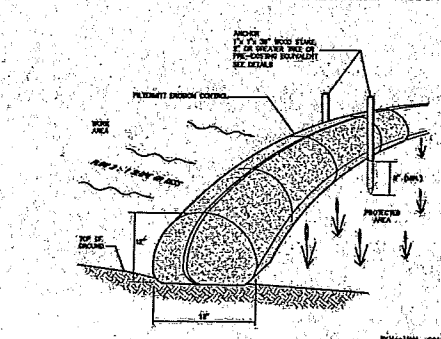


FLARED END SECTION W/STONE PROTECTION N.T.S.
DETAIL

DIMENSIONAL TABLE

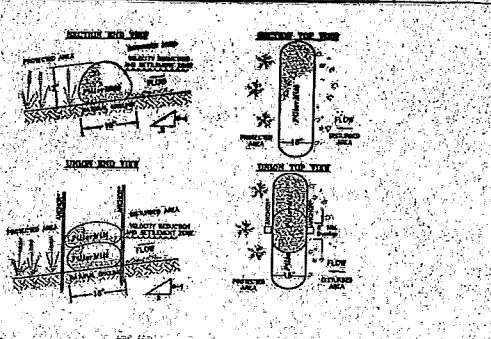
ROW	A	B	C	D	E	F	G	H
1	12"	12"	12"	12"	12"	12"	12"	12"
2	12"	12"	12"	12"	12"	12"	12"	12"
3	12"	12"	12"	12"	12"	12"	12"	12"
4	12"	12"	12"	12"	12"	12"	12"	12"
5	12"	12"	12"	12"	12"	12"	12"	12"
6	12"	12"	12"	12"	12"	12"	12"	12"
7	12"	12"	12"	12"	12"	12"	12"	12"
8	12"	12"	12"	12"	12"	12"	12"	12"
9	12"	12"	12"	12"	12"	12"	12"	12"
10	12"	12"	12"	12"	12"	12"	12"	12"
11	12"	12"	12"	12"	12"	12"	12"	12"
12	12"	12"	12"	12"	12"	12"	12"	12"
13	12"	12"	12"	12"	12"	12"	12"	12"
14	12"	12"	12"	12"	12"	12"	12"	12"
15	12"	12"	12"	12"	12"	12"	12"	12"
16	12"	12"	12"	12"	12"	12"	12"	12"
17	12"	12"	12"	12"	12"	12"	12"	12"
18	12"	12"	12"	12"	12"	12"	12"	12"
19	12"	12"	12"	12"	12"	12"	12"	12"
20	12"	12"	12"	12"	12"	12"	12"	12"

FLARED END SECTION W/STONE PROTECTION N.T.S.
DETAIL



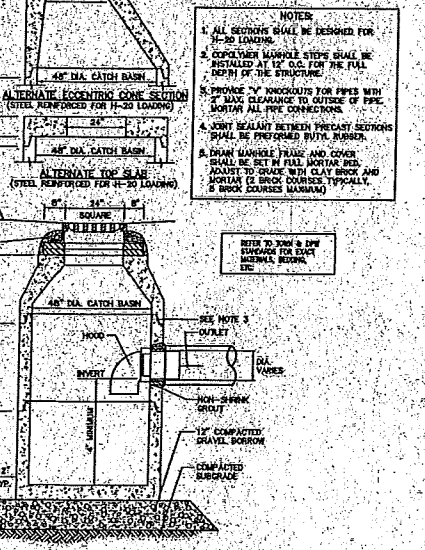
- NOTES**
1. ALL SECTIONS SHALL BE DESIGNED FOR H-20 LOADING.
 2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" ON CENTER FOR THE FULL DEPTH OF THE STRUCTURE.
 3. PROVIDE 1/2" HOLOGRAPHIC FOR PIPES WITH 2" MAX CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREPARED BUTYL RUBBER.
 5. BRICK MANHOLE FRAMES AND COVERS SHALL BE SET IN FULL MORTAR BED. JOINTS TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

FLARED END SECTION W/STONE PROTECTION N.T.S.
DETAIL

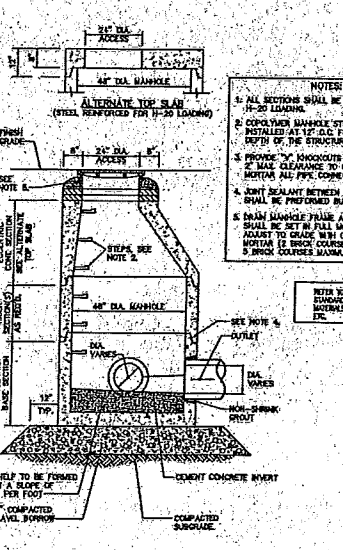


- NOTES**
1. PROVIDE 1/2" HOLOGRAPHIC FOR PIPES WITH 2" MAX CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 2. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREPARED BUTYL RUBBER.
 3. AREA DRAIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. JOINTS TO GRADE WITH CLAY BRICK AND MORTAR.
 4. IN HIGH-WIND LOADING AREAS 'BLAW TOP' CAN BE REDUCED PER MANUFACTURER.

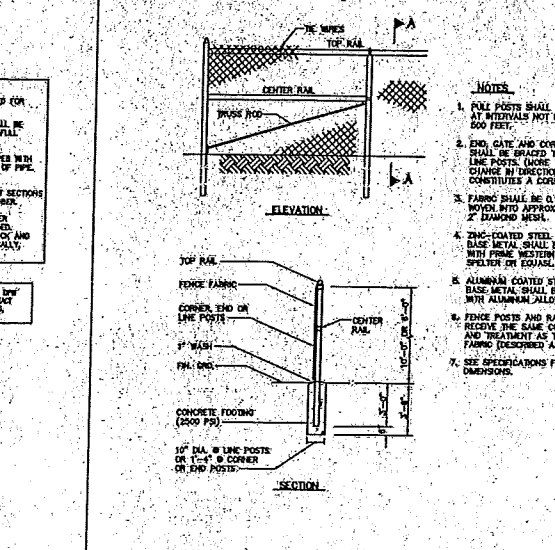
FLARED END SECTION W/STONE PROTECTION N.T.S.
DETAIL



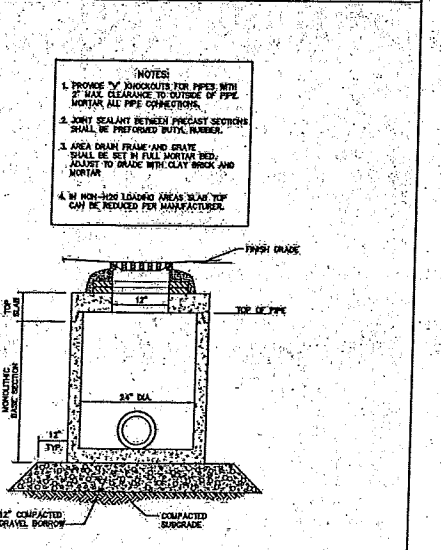
CATCH BASIN (CB) WITH GAS TRAP N.T.S.
DETAIL



DRAIN MANHOLE (DMH) N.T.S.
DETAIL



CHAIN LINK FENCE N.T.S.
DETAIL



AREA DRAIN SHALLOW COVER N.T.S.
DETAIL

Assessors Map: 314 Parcel: 16
 725 Union Street, Franklin, Massachusetts

PREPARED FOR:
4 SQ DEVELOPMENT LLC

TITLE:
DETAIL SHEET

J.K. HOLMGREN ENGINEERING, INC.
 Registered Professional Engineers and Land Surveyors
 1024 Pearl Street, Brockton, MA, 02301
 Phone - (508) 683-2595 Fax - (508) 688-7618
 Email - jholm@jholm.com

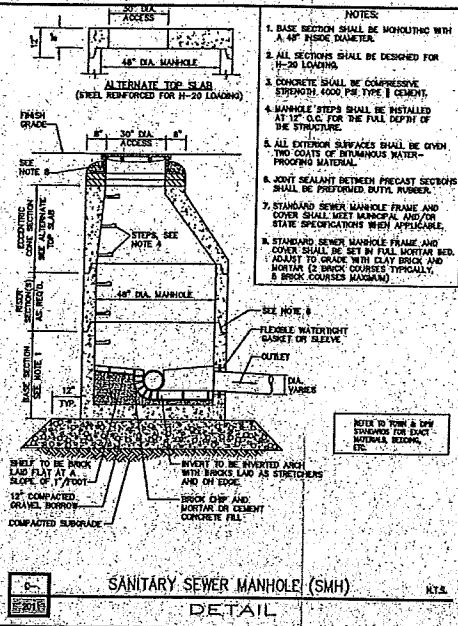
J.K. Holmgren Engineering
 Registered Professional Engineers & Land Surveyors

DATE: 2/9/2018

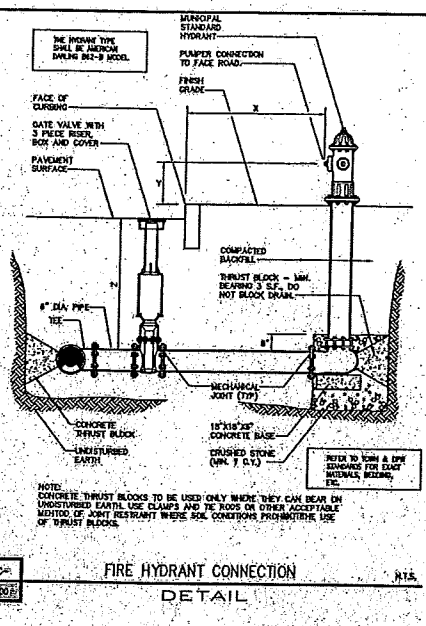
6	SSR 01.10.19	REVS. PER BETA / CO	
5	SSR 12.18.18	REVS. PER BETA / CC	
4	SSR 12.04.18	REVS. PER BETA, DPW & PB	
3	SSR 10.24.18	REVS. FOR PB SUBM.	
1	SSR 3.1.18	REVS. PER CONST. COMM.	
NO.	BY	DATE	REMARKS

C-9
 DRAWING NUMBER

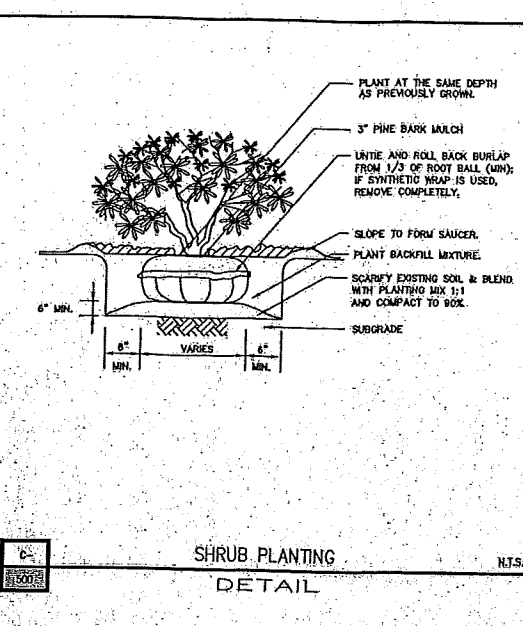
H:\2017\2017-100\CML\DESIGN\2017-100CDSS.DWG
 2017-100



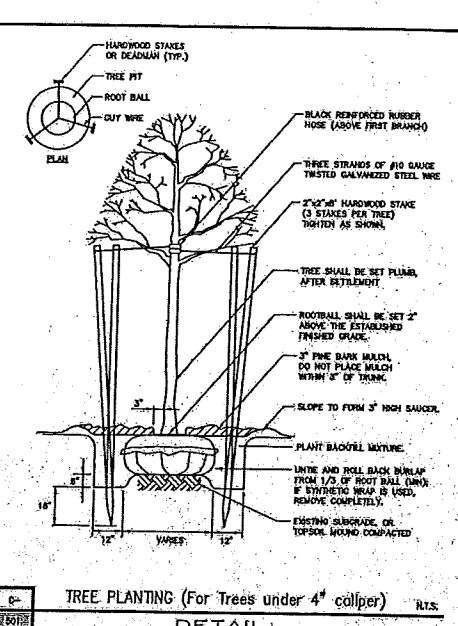
SANITARY SEWER MANHOLE (SMH) DETAIL



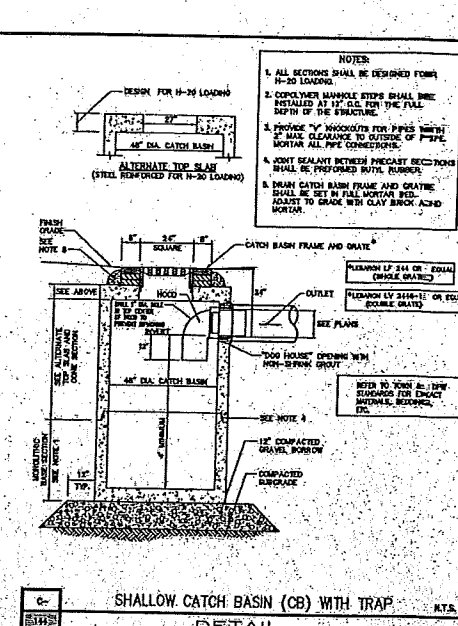
FIRE HYDRANT CONNECTION DETAIL



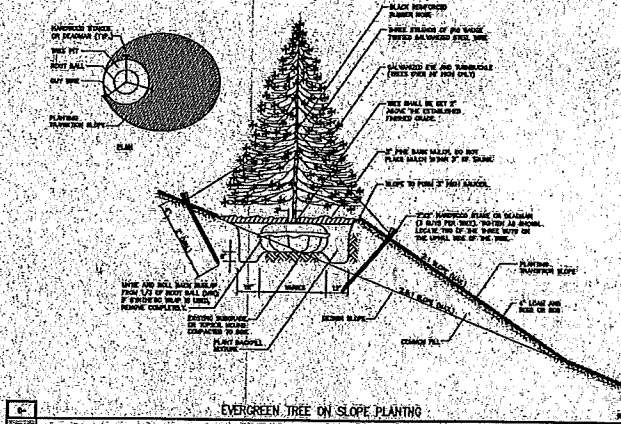
SHRUB PLANTING DETAIL



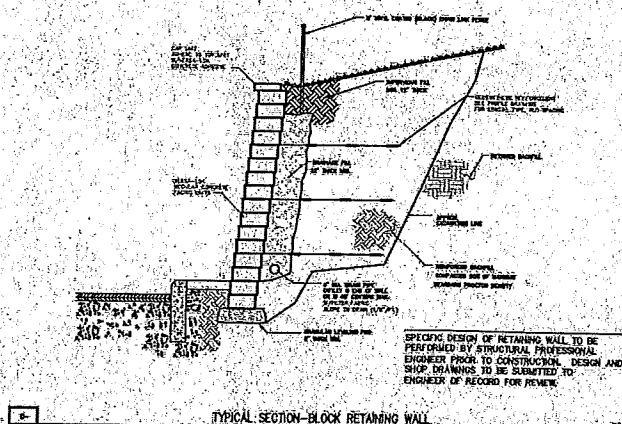
TREE PLANTING (For Trees under 4" caliper) DETAIL



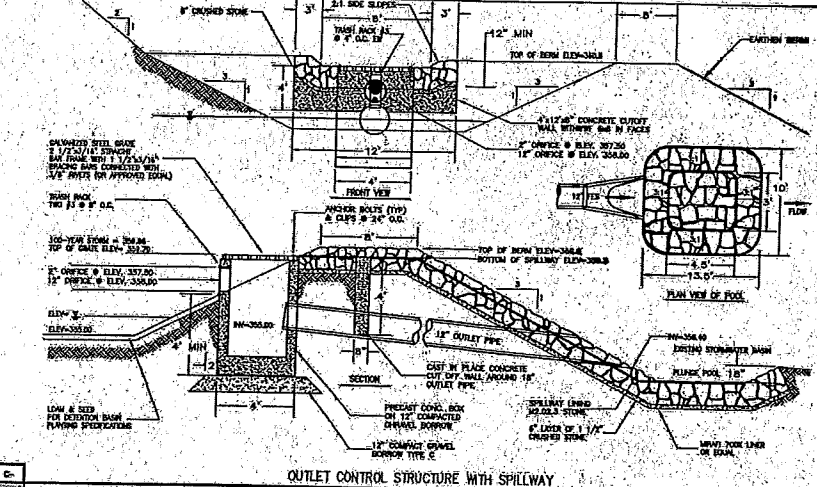
SHALLOW CATCH BASIN (CB) WITH TRAP DETAIL



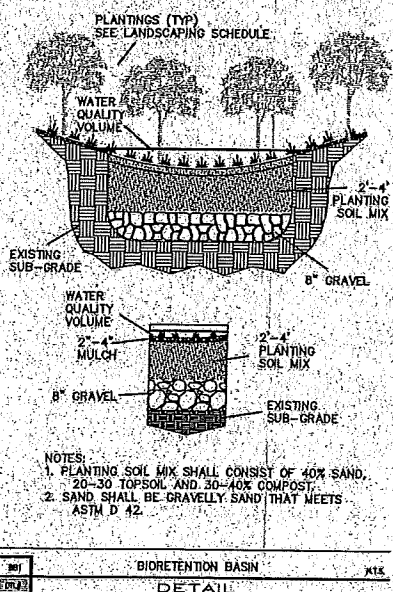
EVERGREEN TREE ON SLOPE PLANTING DETAIL



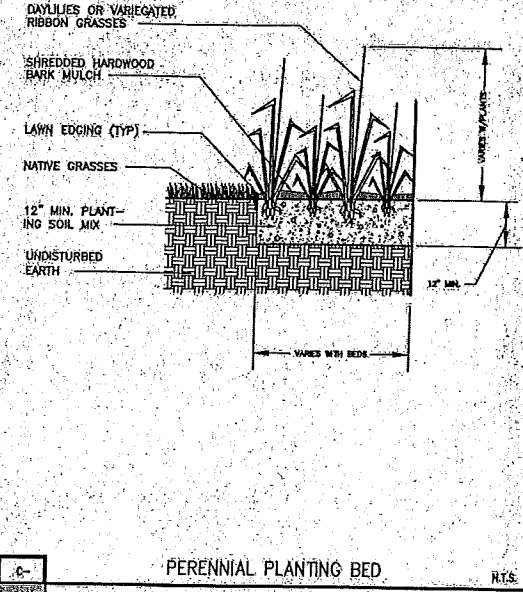
TYPICAL SECTION - BLOCK RETAINING WALL DETAIL



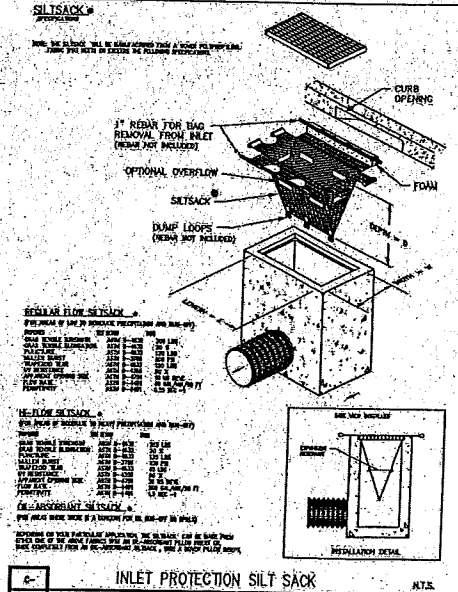
OUTLET CONTROL STRUCTURE WITH SPILLWAY DETAIL



BIORETENTION BASIN DETAIL

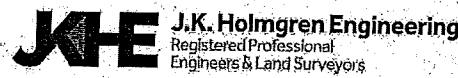
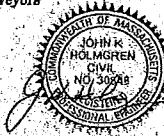


PERENNIAL PLANTING BED DETAIL

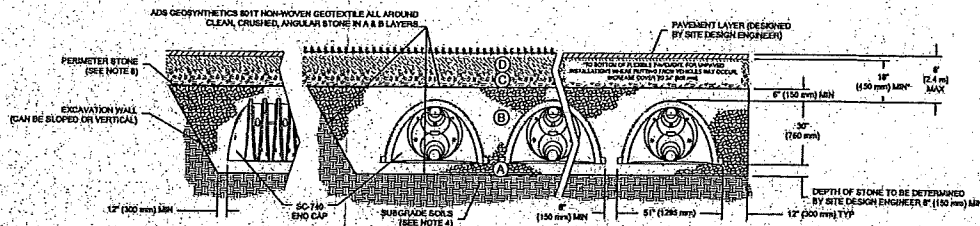


INLET PROTECTION SILT SACK DETAIL

Assessors Map: 314 Parcel: 16
 725 Union Street, Franklin, Massachusetts
 PREPARED FOR:
4 SQ DEVELOPMENT LLC
 TITLE:
DETAIL SHEET
J.K. HOLMGREN ENGINEERING, INC.
 Registered Professional Engineers and Land Surveyors
 1024 Pearl Street, Brockton, MA, 02301
 Phone: (508) 683-2595 Fax: (508) 688-7518
 Email: jholm@jkhengineering.com

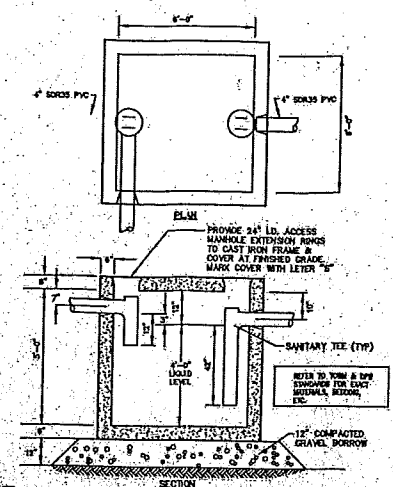


6	SSR 10.10.19	REVS. PER BETA / CC	C-10 DRAWING NUMBER
5	SSR 12.18.18	REVS. PER BETA / CC	
4	SSR 12.04.18	REVS. PER BETA, DPW & PB	
3	SSR 10.24.18	REVS. FOR PB SUBM.	
1	SSR 3.1.18	REVS. PER CONS. COMM.	
NO. BY DATE REMARKS			DATE: 2/9/2018
H:\2017\2017-100\CIVIL\DESIGN\2017-100CDS5.DWG			
2017-100			



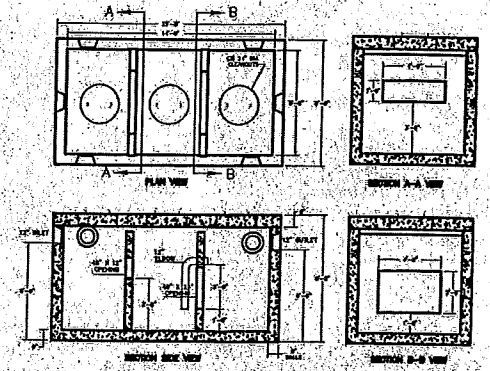
NOTES:

1. DC-746 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2118 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2282 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. DC-746 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2187 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRAVITATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBANKMENT, AND FILL MATERIALS.
4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SURGRADE SOILS AND THE DEPTH OF FOUNDATION STONE, WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
6. ONCE LAYER IS PLACED, ANY SOIL MATERIAL CAN BE PLACED IN LAYER UP TO THE FINISHED GRADE. MOST PAVEMENT SURGRADE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 10 OR 11 AT THE SITE DESIGN ENGINEER'S DISCRETION.



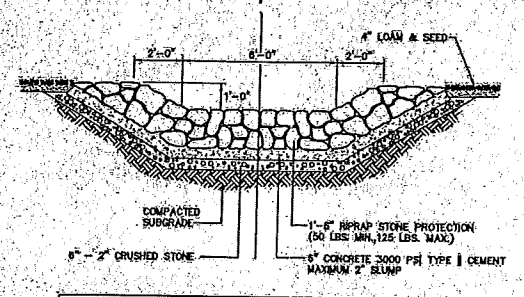
1,000 GAL GREASE TRAP DETAIL N.T.S.

REV. DATE	REV. BY (CALLS)	REV. DESCRIPTION	DATE TO BE SHOWN	CHANGES LISTED	CHANGES SHOWN



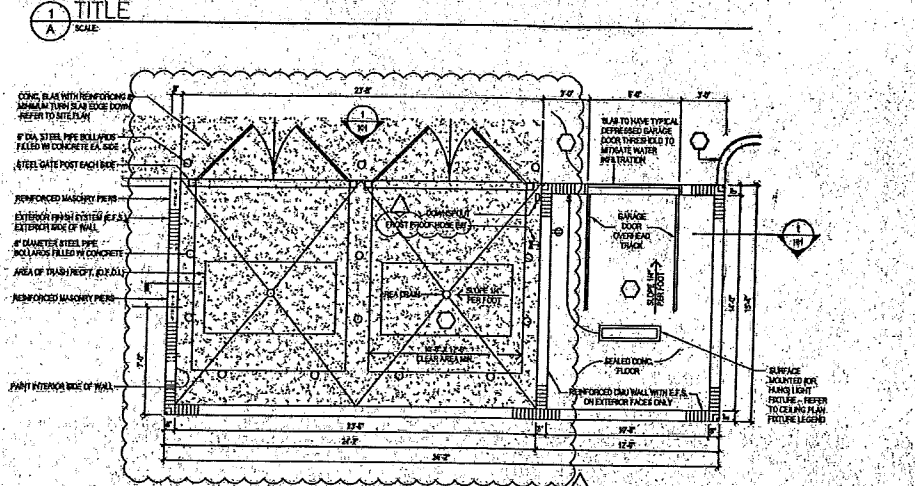
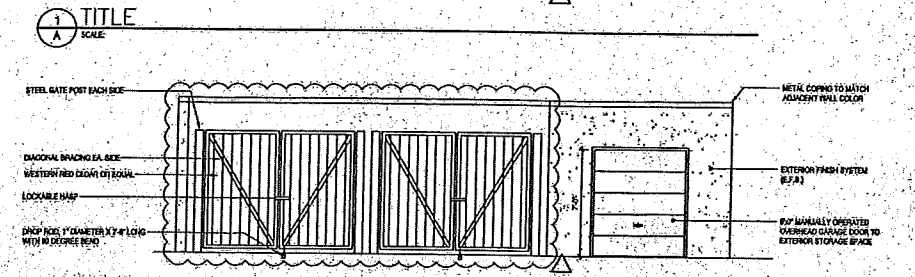
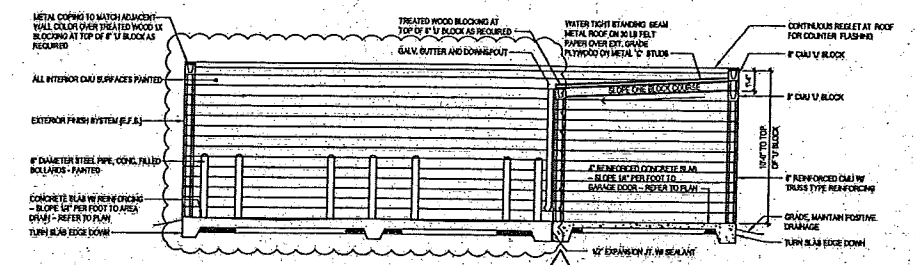
- NOTES:**
1. CONCRETE SLABS PER APPROVAL AFTER 28 DAYS.
 2. DESIGN FOR 10-100 LBS/FT².
 3. TORQUE & REMOVE JOINT SEALED WITH BUTYL RESIN.
 4. ALL REINFORCEMENT PER ASTM C1277.
 5. TEES AND SPLITTER SOLD SEPARATELY.

5,000 GALLON SEDIMENT AND OIL SEPARATOR DETAIL N.T.S.

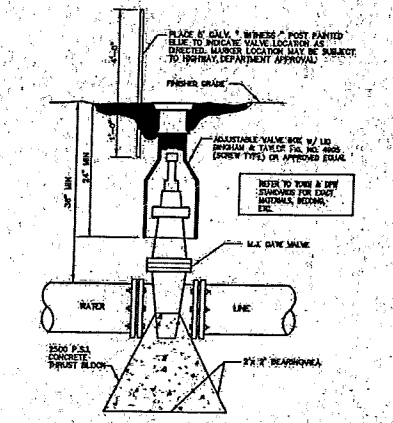


- NOTES:**
1. HAND SET FIRST LAYER OF RIPRAP INTO CONCRETE.
 2. HAND PLACE REMAINING RIPRAP AFTER CONCRETE HAS SET AND CHISEL WITH SMALLER STONES.

OVERFLOW RIPRAP SWALE SECTION DETAIL N.T.S.



WINDOW/DOOR DETAIL N.T.S.



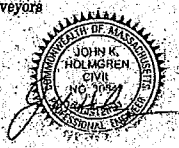
GATE VALVE DETAIL N.T.S.

Assessors Map: 314 Parcel: 16
725 Union Street, Franklin, Massachusetts

PREPARED FOR
4 SQ DEVELOPMENT LLC

TITLE
DETAIL SHEET

J.K. HOLMGREN ENGINEERING, INC.
Registered Professional Engineers and Land Surveyors
1024 Pearl Street, Brockton, MA, 02301
Phone: (508) 683-2595 Fax: (508) 688-7518
Email: jholmgr@jholmgr.com



NO.	BY	DATE	REMARKS
6	SSR	01.10.19	REVS. PER BETA / CC
5	SSR	12.18.18	REVS. PER BETA / CC
4	SSR	12.04.18	REVS. PER BETA, DPW & PB
3	SSR	10.24.18	REVS. FOR PB SUBM.
1	SSR	3.1.18	REVS. PER CONS. COMM.

DATE: 2/9/2018

C-11
DRAWING NUMBER

H:\2017\2017-100\CIVIL\DESIGN\2017-1000DS5.DWG
2017-100