

# Site Development Plans

COVER - GENERAL NOTES - LEGEND SHEET

Issued for : Site Plan Review

Date Issued - June 1, 2022

Revised - September 15, 2022

Job Number - 2020-078

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Architectural Plans (By Others)  
Lighting Plan (By Others)

### LEGEND

EXIST	PROP	EXIST	PROP

### GENERAL NOTES

- ALL PROPOSED WALKWAYS WILL BE HANDICAPPED ACCESSIBLE. ALL PROPOSED SLOPES ON WALKWAYS TO BE LESS THAN 5%.
- 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 BACKSANDS.
- 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 ASHLAND UTILITY DIVISION AT LEAST 72 HOURS TO MARK APPROPRIATE UTILITIES BEFORE THE START OF CONSTRUCTION.
- 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.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND. LAWN AREAS SHALL HAVE A MODIFIED LOAM BORROW PLACED AND SEEDS. 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 AS DESIGNED, REVIEWED AND APPROVED BY THE PLANNING BOARD.
- 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 ASHLAND 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 (POST-CONSTRUCTION). THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE DRAINAGE SYSTEM DURING CONSTRUCTION.
- ANY HYDRANT, FIRE PROTECTION WATER SUPPLY LINE AND ASSOCIATED DEVICES ON SUBJECT PROPERTY SHALL BE MAINTAINED TO THE REQUIREMENTS OF NFPA25.
- THE SITE IS NOT LOCATED IN A DEP WELL HEAD PROTECTION DISTRICT.
- THE SITE IS NOT LOCATED IN A NHESP ESTIMATED OR PRIORITY HABITAT OF RARE SPECIES.

# Proposed Coffee Shop

399 Union Street, Ashland,  
Middlesex County, Massachusetts

For :



# STARBUCKS

Applicant :

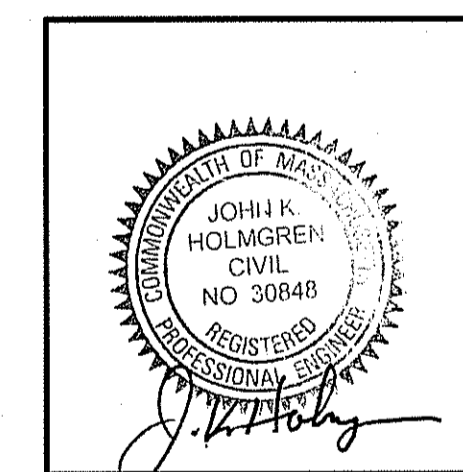
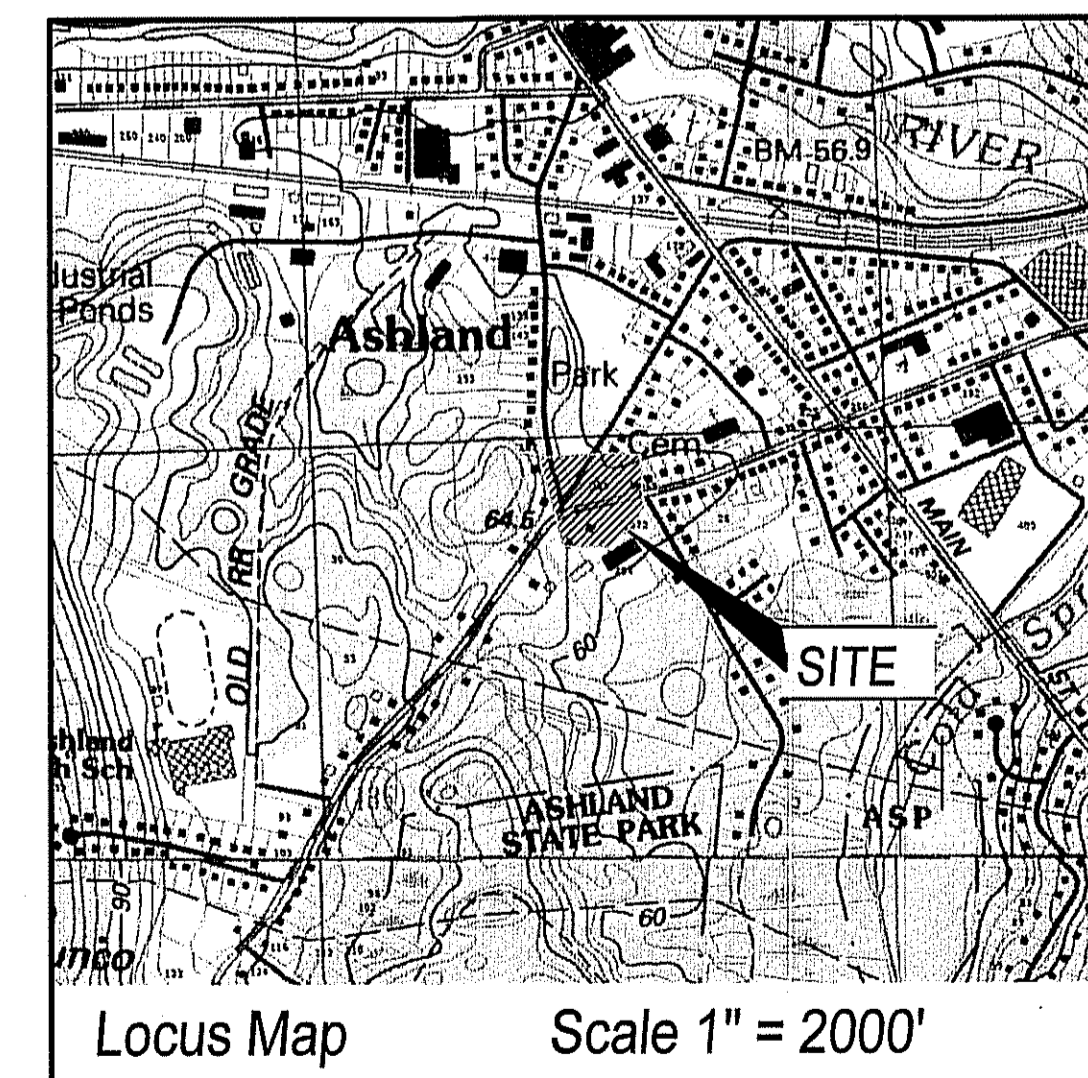
Retail Ashland, LLC  
858 Washington Street  
Dedham, MA 02026  
Phone - (781) 910-5618

Owner :

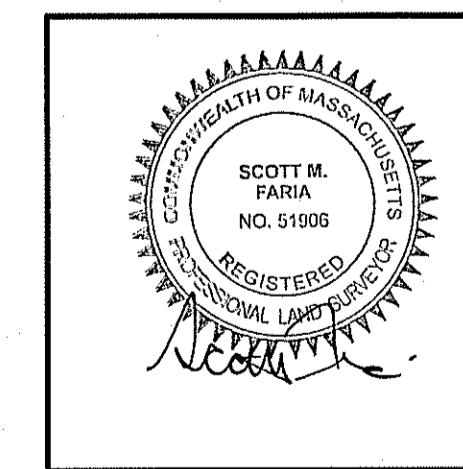
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Phone - (781) 910-5618

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: sfaria@jkholmgren.com



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



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

DATE: 06/01/2022

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

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

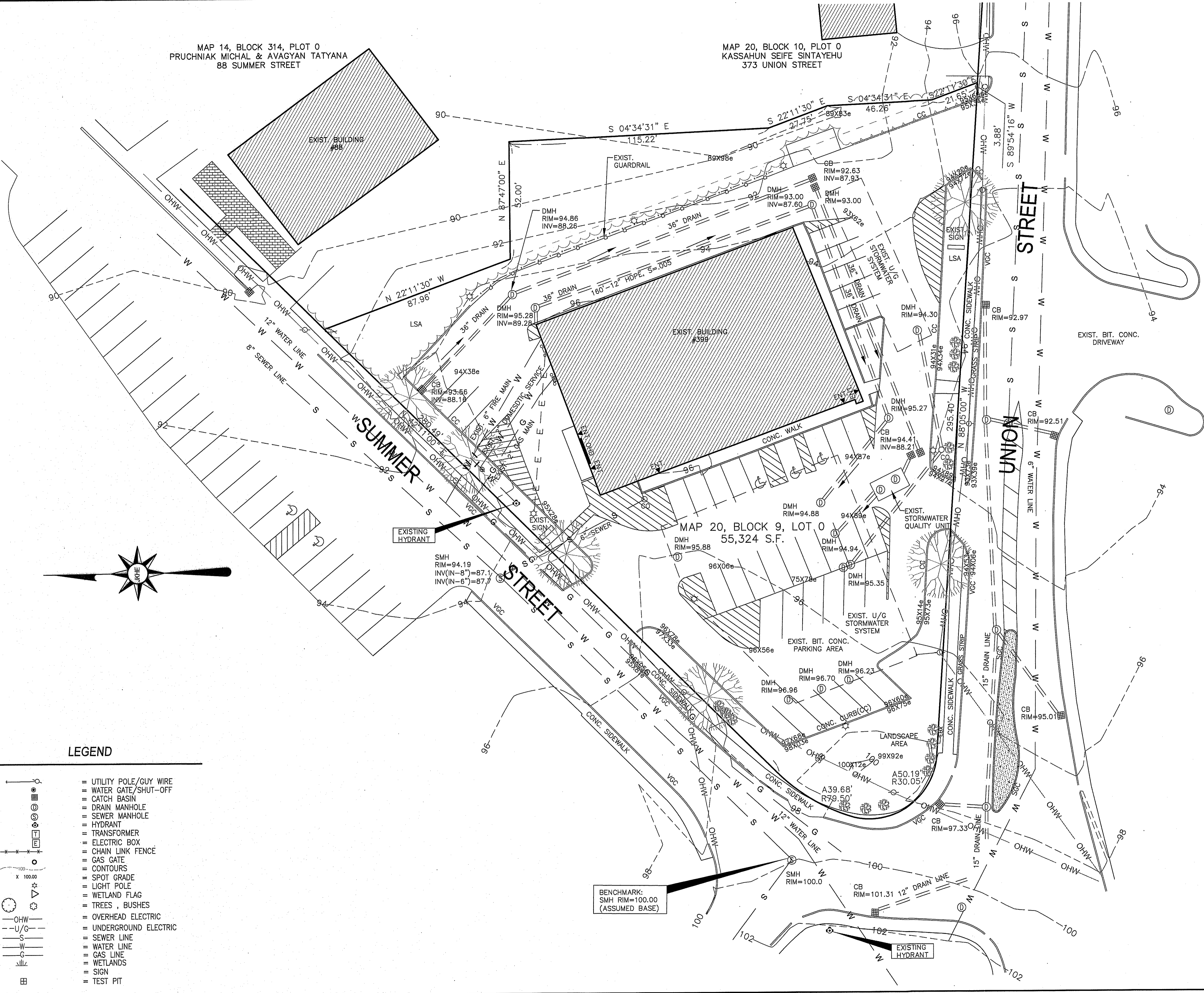
REV.	BY:	DATE:	REMARKS
1	JEG	09.15.22	REDUCE IMPERVIOUS AREA

H:\2020\2020-078\CIVIL\2020-078COV1.DWG  
2020-078

C-1  
DRAWING NUMBER

MAP 14, BLOCK 314, PLOT 0  
PRUCHNIAK MICHAL & AVAGYAN TATYANA  
88 SUMMER STREET

MAP 20, BLOCK 10, PLOT 0  
KASSAHUN SEIFE SINTAYEHU  
373 UNION STREET



**GENERAL NOTES :**

ASSESSORS MAP : 20 BLOCK: 9 LOT : 0  
LOCUS DEED REFERENCE : BOOK 32052, PAGE 0194  
PLAN REFERENCE : PLAN NO 36312003

ZONING : INDUSTRIAL

APPLICANT : RETAIL ASHLAND LLC  
858 WASHINGTON STREET  
DEDHAM, MA. 02026

OWNER : RETAIL ASHLAND LLC  
858 WASHINGTON STREET  
DEDHAM, MA. 02026

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.

THE PROJECT SITE IS LOCATED OUTSIDE OF ANY FLOOD ZONES (ZONE X) AS PER FEMA - FIRM MAP COMMUNITY PANEL 25017C0514F, DATED 7/7/2014.

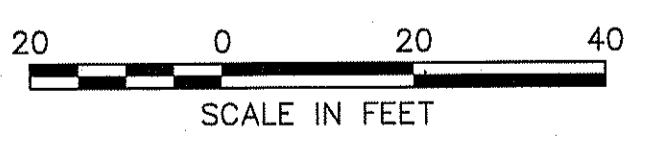
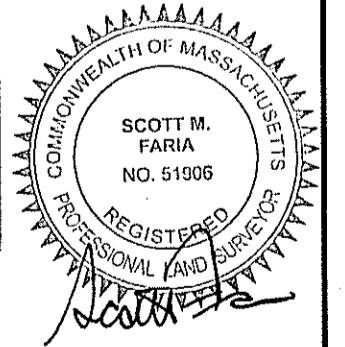
Assessors Map: 20 Block: 9 Lot: 0  
399 Union Street, Ashland, Massachusetts

PREPARED FOR  
**RETAIL ASHLAND, 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 : sfaria@jholmgren.com



SCALE: 1" = 20' DATE: 06/01/2022

NO.	BY	DATE	REMARKS
1	JEG	09.15.22	REDUCE IMPERVIOUS AREA

**C-2**  
DRAWING NUMBER

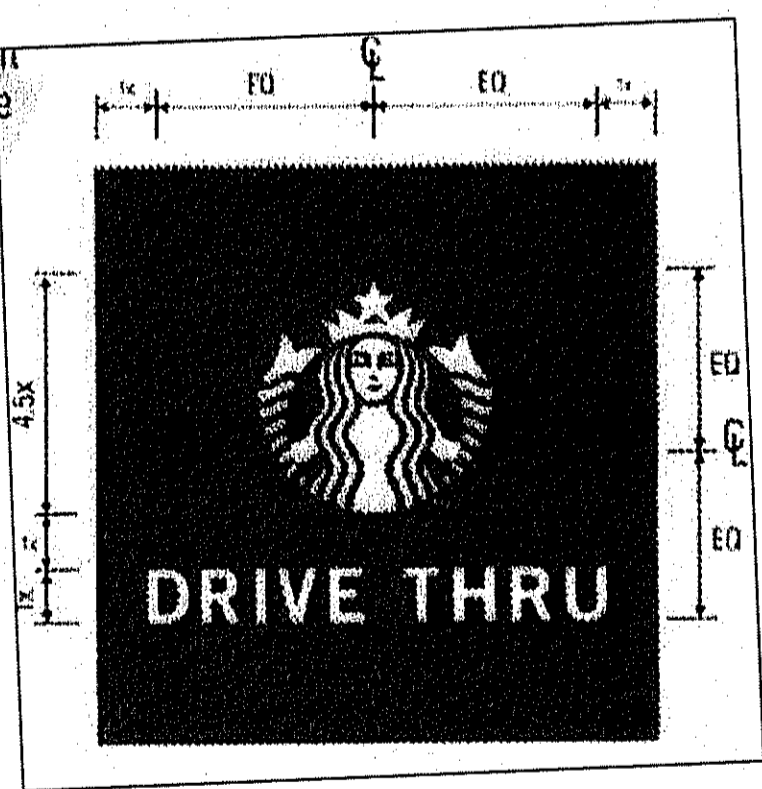
HA\2020\2020-078 Salvatore Capital, 399 Union St., Ashland\SURVEY\WORKSHEET\2020-078EC6.dwg  
2020-078

**LEGEND**

- = UTILITY POLE/GUY WIRE
- = WATER GATE/SHUT-OFF
- = CATCH BASIN
- = DRAIN MANHOLE
- = SEWER MANHOLE
- = HYDRANT
- = TRANSFORMER
- = ELECTRIC BOX
- = CHAIN LINK FENCE
- = GAS GATE
- = CONTOURS
- = SPOT GRADE
- = LIGHT POLE
- = WETLAND FLAG
- = TREES, BUSHES
- = OVERHEAD ELECTRIC
- = UNDERGROUND ELECTRIC
- = SEWER LINE
- = WATER LINE
- = GAS LINE
- = WETLANDS
- = SIGN
- = TEST PIT

**SITE LEGEND**

- (A) PRECAST CONCRETE CURB
- (B) TRASH ENCLOSURE AREA (SEE ARCH. PLANS)
- (C) TRAFFIC FLOW ARROWS (SEE DETAILS)
- (D) 6" WIDE LINE STRIPE
- (E) ACCESSIBLE PARKING SYMBOL
- (F) STOP SIGN (RS-8)
- (G) ACCESSIBLE PARKING SIGN
- (H) CONC. WHEEL STOPS (SEE DETAIL)
- (I) 5' WIDE CONCRETE WALK
- (J) DO NOT ENTER SIGN
- (K) MONOLITHIC CONCRETE SIDEWALK & CURB
- (L) LANDSCAPED ISLAND
- (M) 12" STOP BAR
- (N) DECORATIVE FENCE
- (O) VEHICLE DETECTOR LOOP
- (P) IDENTIFICATION SIGN (SEE ARCH. PLANS)
- (Q) RIGHT TURN ONLY SIGN
- (R) ENTRY PAVEMENT ARROW (GREEN)
- (S) CLEARANCE BAR
- (T) NON-ILLUMINATED BOLLARD
- (U) EXIT PAVEMENT ARROW (WHITE)
- (V) DRIVE THRU PRE-MENU BOARD
- (W) SITE LIGHT POLES
- (X) BYPASS LANE (12' WIDE)
- (Y) BIKE RACKS
- (Z) SNOW STORAGE AREA
- (AA) PICK UP WINDOW W/ CANOPY
- (AB) DT 5' PANEL MENU BOARD
- (AC) FREE STANDING
- (AD) SIGN- DT THANK YOU/ EXIT ONLY
- (AE) BUILDING SCENCE (SEE ARCH PLANS)
- (AF) PROPOSED 6" WIDE CROSSWALK (SEE TRAFFIC PLANS)
- (AG) NO LEFT TURN SIGN
- (AH) PEDESTRIAN CROSSING SIGN
- (AI) THANK YOU SIGN
- (AJ) EXIT ONLY SIGN
- (AK) ONE WAY SIGN

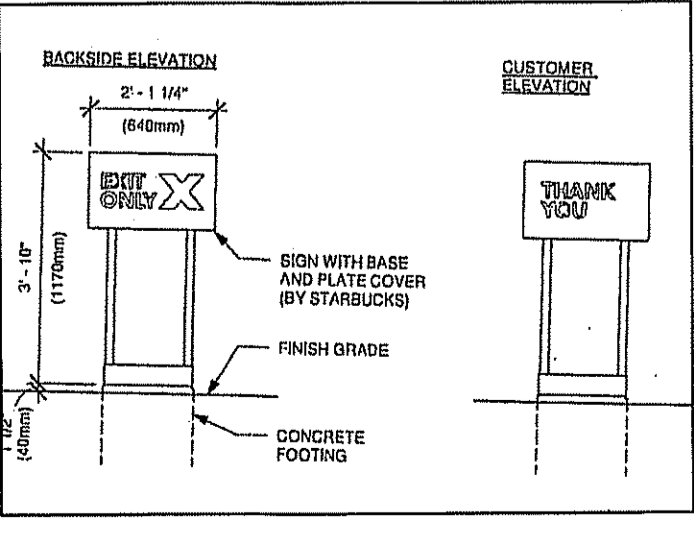


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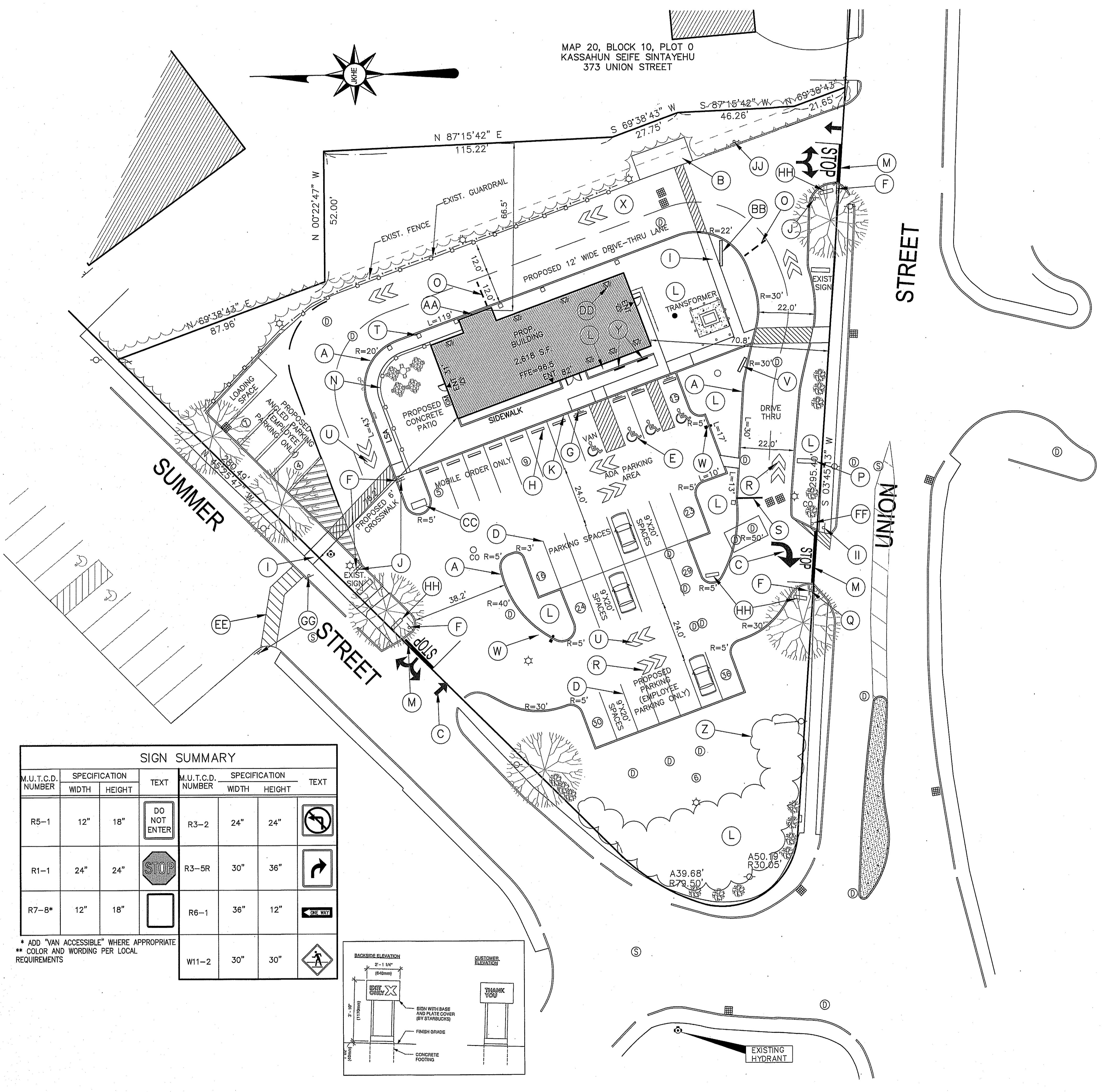
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SIGN SUMMARY						
M.U.T.C.D. NUMBER	SPECIFICATION	TEXT	M.U.T.C.D. NUMBER	SPECIFICATION	TEXT	
	WIDTH	HEIGHT		WIDTH	HEIGHT	
R5-1	12"	18"	R3-2	24"	24"	
R1-1	24"	24"	R3-5R	30"	36"	
R7-B*	12"	18"	R6-1	36"	12"	
			W11-2	30"	30"	

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



MAP 20, BLOCK 10, PLOT 0  
 KASSAHUN SEIFE SINTAYEHU  
 373 UNION STREET



**GENERAL NOTES :**

ASSESSORS MAP : 20 BLOCK: 9 LOT : 0  
 LOCUS DEED REFERENCE : BOOK 32052, PAGE 0194  
 PLAN REFERENCE : PLAN NO 36312003  
 ZONING : INDUSTRIAL  
 APPLICANT : RETAIL ASHLAND LLC  
 858 WASHINGTON STREET  
 DEDHAM, MA. 02026  
 OWNER : RETAIL ASHLAND LLC  
 858 WASHINGTON STREET  
 DEDHAM, MA. 02026  
 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.  
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ZONING TABLE		
ZONE: I (INDUSTRIAL)		
PROPOSED USE: RESTAURANT / DRIVE-THRU		
	REQUIRED	PROVIDED
MIN. LOT AREA	30,000	55,504 S.F.
FRONTAGE	150'	>150'
FRONT SETBACK	40'	70.8'
SIDE SETBACK	30'	78.2'
REAR SETBACK	30'	64.9'
MAX. BLDG. HEIGHT(STORIES)	2 STORIES	1 STORY
MAX. % BLDG. LOT COVERAGE	N/A	39%
MIN. OPEN SPACE(GREEN SPACE)	N/A	22%
PARKING SCHEDULE:		
REST. : 1 SPACE PER 4 SEATS	46/4= 12 SPACES	
PATIO. : 1 SPACE PER 4 SEATS	28/4= 7 SPACES	
TOTAL PARKING	19 SPACES	36 SPACES

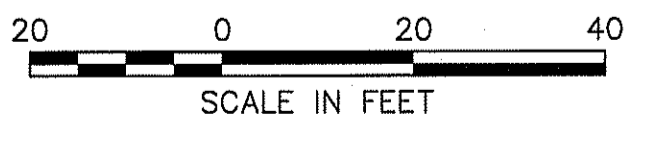
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PREPARED FOR  
**RETAIL ASHLAND, LLC**

**LAYOUT & MATERIALS PLAN**

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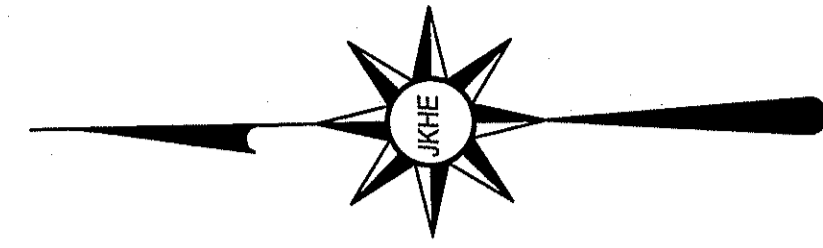
NO.	BY	DATE	REMARKS
1	JEG	09.15.22	REDUCE IMPERVIOUS AREA

**C-3**  
 DRAWING NUMBER



MAP 14, BLOCK 314, PLOT 0  
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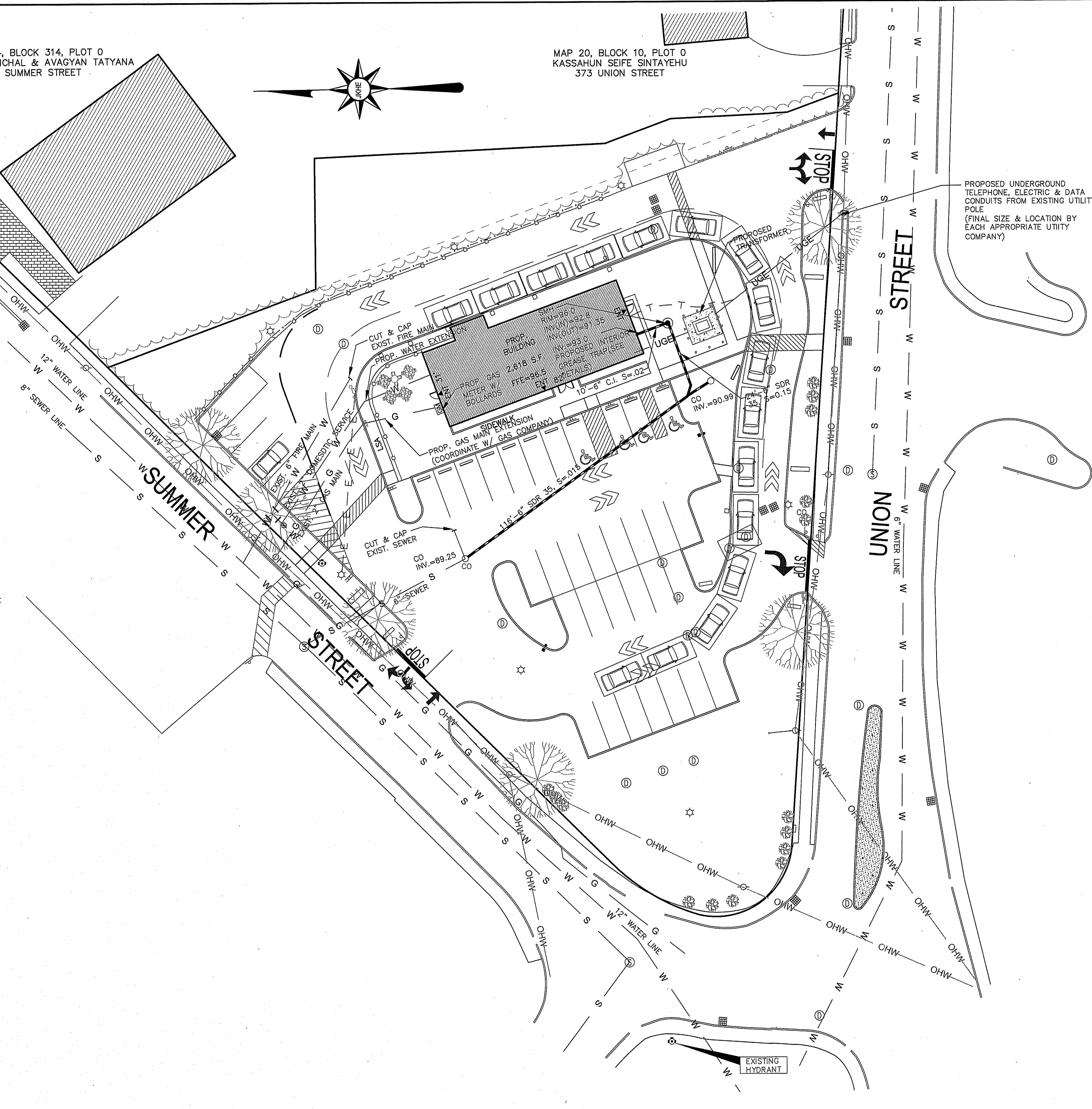


**UTILITY NOTES:**

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 EQUIDISTANT 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 CEMENT-LINED DUCTILE IRON PIPE FOR ONE FULL 20' PIPE LENGTH OR ANOTHER EQUIVALENT THAT IS WATERTIGHT 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 WATERTIGHT.
3. SEWER BUILDING CONNECTIONS SHALL BE 6" MIN. SDR 35 PVC, U.G.N., AT A SLOPE OF 1% MINIMUM FROM MAINLINE 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 5', 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 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.

**LEGEND**

- = UTILITY POLE/GUY WIRE
- = WATER GATE/SHUT-OFF
- = CATCH BASIN
- = DRAIN MANHOLE
- = SEWER MANHOLE
- = HYDRANT
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- = SIGN
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PROPOSED UNDERGROUND TELEPHONE, ELECTRIC & DATA CONDUITS FROM EXISTING UTILITY POLE (FINAL SIZE & LOCATION BY EACH APPROPRIATE UTILITY COMPANY)

**GENERAL NOTES :**  
ASSESSORS MAP : 20 BLOCK: 9 LOT : 0  
LOCUS DEED REFERENCE : BOOK 32052, PAGE 0194  
PLAN REFERENCE : PLAN NO 36312003

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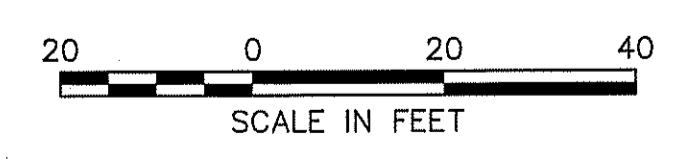
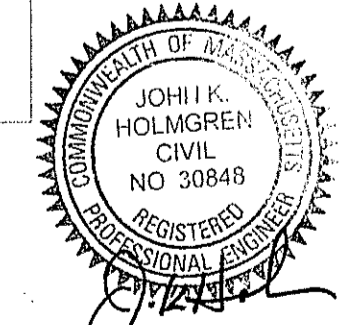
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE THE START OF ANY WORK. THE CONTRACTOR AGREES TO BE FULLY 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 EASTON UTILITY DIVISION AT LEAST 72 HOURS TO MARK APPROPRIATE UTILITIES BEFORE THE START OF CONSTRUCTION.

Assessors Map: 20 Block: 9 Lot: 0  
399 Union Street, Ashland, Massachusetts

PREPARED FOR  
**RETAIL ASHLAND, LLC**

TITLE  
**UTILITY PLAN**

**J.K. HOLMGREN ENGINEERING, INC.**  
Registered Professional Engineers and Land Surveyors  
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Phone - (508) 583-2595 Fax - (508)-588-7518  
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SCALE: 1" = 20' DATE: 06/01/2022

NO.	BY	DATE	REMARKS
1	JEG	09.15.22	REDUCE IMPERVIOUS AREA

**C-5**  
DRAWING NUMBER

H:\2020\2020-078 Salvatore Capital, 399 Union St., Ashland\DWG\DESIGN\2020-078SP3.dwg  
2020-078

**CONSTRUCTION SEQUENCE**

1. INSTALL SILT SOCKS AND SILT FENCING 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 PRE-TREATMENT VIA SETTLING BASINS.
4. INSTALL HAY BALE CHECK DAMS ALONG CENTER OF SWALES AT 100' O.C., AS NECESSARY.
5. CLEAR AND GRUB SITE WITHIN THE LIMIT OF WORK.
6. CONSTRUCT SWIM 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 AND HAY BALES AROUND NEW STRUCTURES IN ACCORDANCE WITH DETAIL #607 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 CURLEX 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 SWIM BASIN AND OUTLET STRUCTURES. REGRADE TO CONTOURS PER DESIGN. STABILIZE ALL SLOPES AS REQUIRED. REPLACE FILTER FABRIC AND CLEAN STONE AROUND LOW FLOW OUTLET PIPE. INSTALL LOW FLOW ORIFICE CAP PER DETAIL.
16. REMOVE SILT SOCKS & SILT FENCE UPON ESTABLISHMENT OF PERMANENT GROUND COVER. STABILIZE ALL AREAS WHERE SILT SOCKS WERE REMOVED.

**NOTES**

1. MAINTAIN A STOCKPILE OF SILT SOCKS, 100 FEET OF SILT FENCE 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.

**LANDSCAPE SCHEDULE**

SYMBOL NAME	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
ARAF	3	ACER RUBRUM 'AUTUMN FLAME'	AUTUMN FLAME RED MAPLE	2-2 1/2" CAL.	B & B
HBA	16	HOSTA 'BOLD RIBBONS'	BOLD RIBBONS HOSTA	-	CONTAINER
IGC	12	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	15-18" HT.	CONTAINER
MC	10	MOLINIA CAERULEA 'VARIEGATA'	VAR. PURPLE MOOR GRASS	-	#2 POT
PA	10	PENNISETUM ALOPECUROIDES	DWARF FOUNTAIN GRASS	-	#2 POT
SBG	18	SPIRAEA X BUMALDA 'GOLDFLAME'	GOLD FLAME SPIREA	12-15" HT.	CONTAINER
TH	17	TAXUS MEDIA 'HICKSI'	HICKS YEW	30-36" HT.	CONTAINER

**LANDSCAPE NOTES:**

1. CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS AND EQUIPMENT IN ORDER TO COMPLETE THE WORK.
2. ALL SEEDED AND / OR SOD AREAS SHALL RECEIVE 6" OF LOAM OR TOPSOIL.
3. ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF DOUBLE SHREDDED HARDWOOD MULCH.
4. PLANTING SOIL MIX SHALL CONSIST OF 1/3 SPHAGNUM PEAT MOSS AND 2/3 FERTILE FIELD LOAM BY VOLUME.
5. ALL PLANTINGS AT DRIVEWAY ENTRANCES WILL BE MAINTAINED TO A HEIGHT OF THREE FEET OR LESS AS TO NOT OBSCURE TRAFFIC VISIBILITY.
6. ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
7. 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.
8. REFERENCE IS MADE TO THE "MULCH LAW", THE REVISED REGULATION, 827 CMR 1 - 10.14.10.4, WHICH 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.

**SEEDING SPECIFICATIONS:**

SEED MIXTURE:	APPLICATION RATE:
TEMPORARY SEEDING: RYEGRASS	1 LB/1000 SF
PERMANENT SEEDING IN LANDSCAPED AREAS: SEED MIXTURE: PERENNIAL RYEGRASS CREeping RED FESCUE REDTOP	APPLICATION RATE: 35 LBS/1000 SF 52 LBS/1000 SF 7 LBS/1000 SF
PERMANENT SEEDING IN SLOPED AREAS: SEED MIXTURE: PERENNIAL RYEGRASS CREeping RED FESCUE REDTOP ALFALFA CLOVER BRODSFOT TREFOLI	APPLICATION RATE: 30 LBS/1000 SF 35 LBS/1000 SF 5 LBS/1000 SF 5 LBS/1000 SF 5 LBS/1000 SF

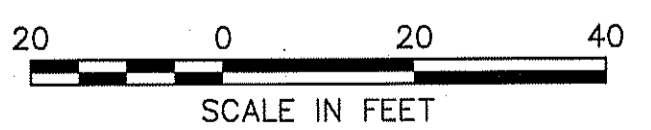
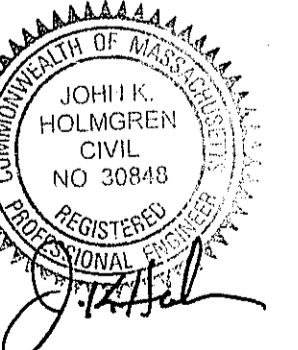
Assessors Map: 20 Block: 9 Lot: 0  
399 Union Street, Ashland, Massachusetts

**RETAIL ASHLAND, LLC**

**LANDSCAPE DEVELOPMENT & 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 : sfaria@jkholmgren.com



SCALE: 1" = 20'

DATE: 06/01/2022

NO.	BY	DATE	REMARKS
1	JEG	09.15.22	REDUCE IMPERVIOUS AREA

**C-6**

DRAWING NUMBER

H:\2020\2020-078 Salvatore Capital, 399 Union St., Ashland\CIVIL\DESIGN\2020-078SF3.dwg  
2020-078

**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 SILTATION 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 SWIM 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 TWICE 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.

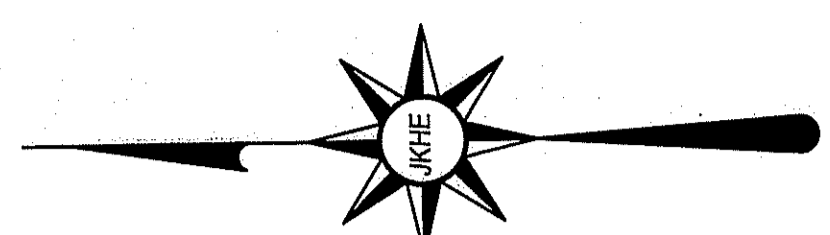
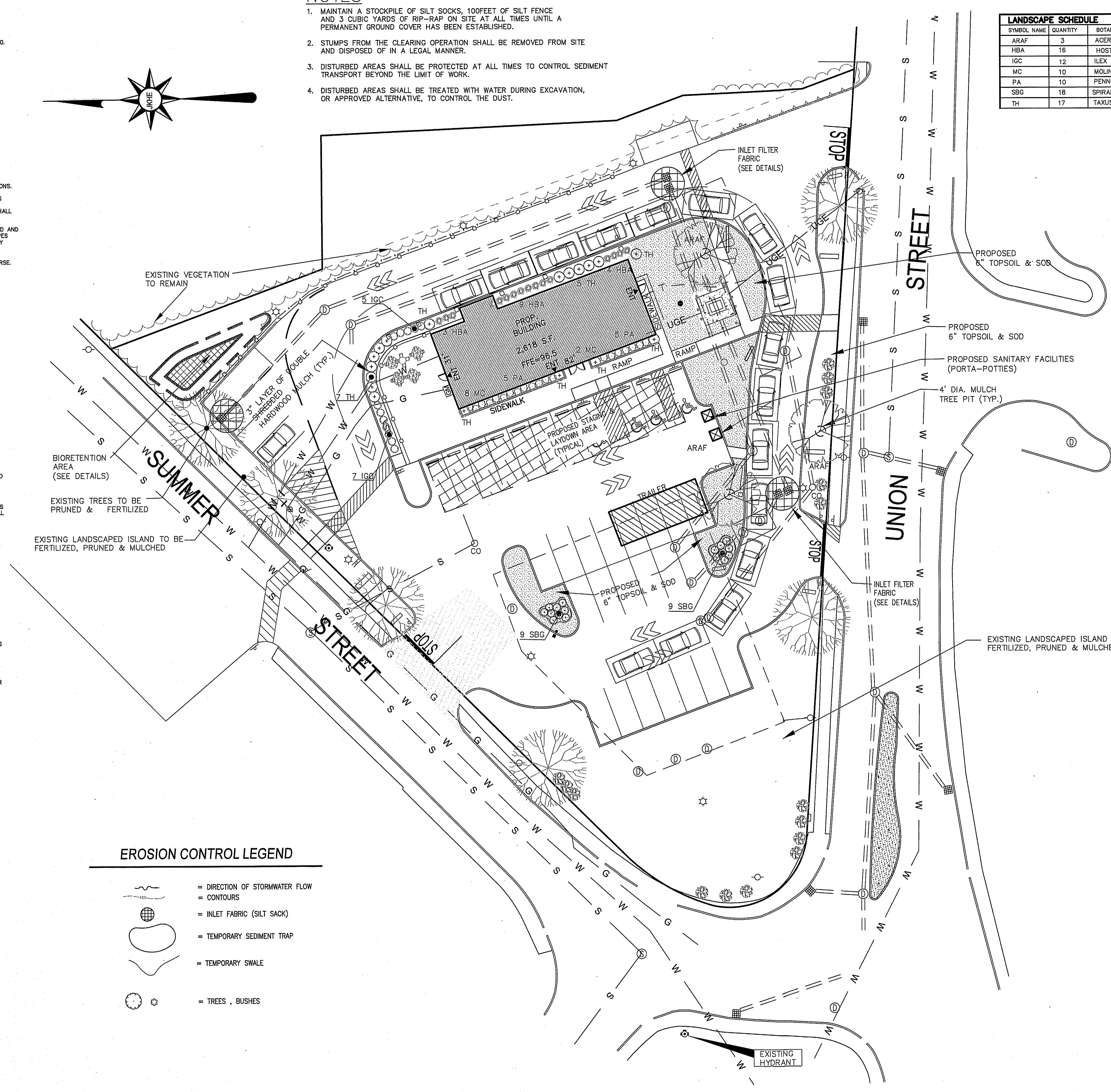
THE FOLLOWING MINIMUM INFORMATION SHALL BE RECORDED:  
 \* DATE OF INSPECTION  
 \* GENERAL CONDITION OF THE ENTIRE SYSTEM  
 \* CORRECTIVE MAINTENANCE ACTIONS TAKEN TO ENSURE ADEQUATE FUNCTION AND WHEN PERFORMED.  
 \* A COPY OF THESE INSPECTION REPORTS SHALL BE FURNISHED TO THE APPROPRIATE AGENCY UPON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

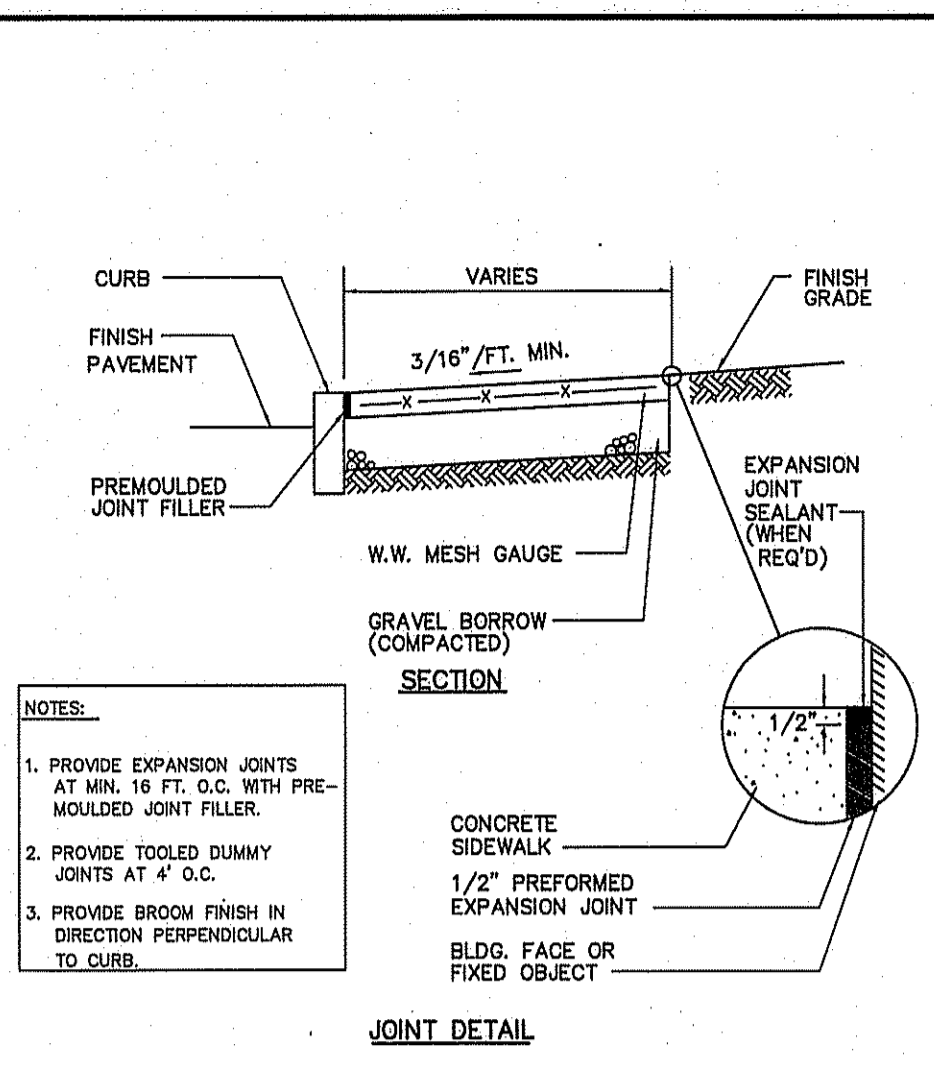
**LEGEND**

- = UTILITY POLE/GUY WIRE
- = WATER GATE/SHUT-OFF
- = CATCH BASIN
- = DRAIN MANHOLE
- = SEWER MANHOLE
- = HYDRANT
- = TRANSFORMER
- = ELECTRIC BOX
- = CHAIN LINK FENCE
- = GAS GATE
- = CONTOURS
- = SPOT GRADE
- = LIGHT POLE
- = WETLAND FLAG
- = TREES, BUSHES
- = OVERHEAD ELECTRIC
- = UNDERGROUND ELECTRIC
- = SEWER LINE
- = WATER LINE
- = GAS LINE
- = WETLANDS
- = SIGN
- = TEST PIT

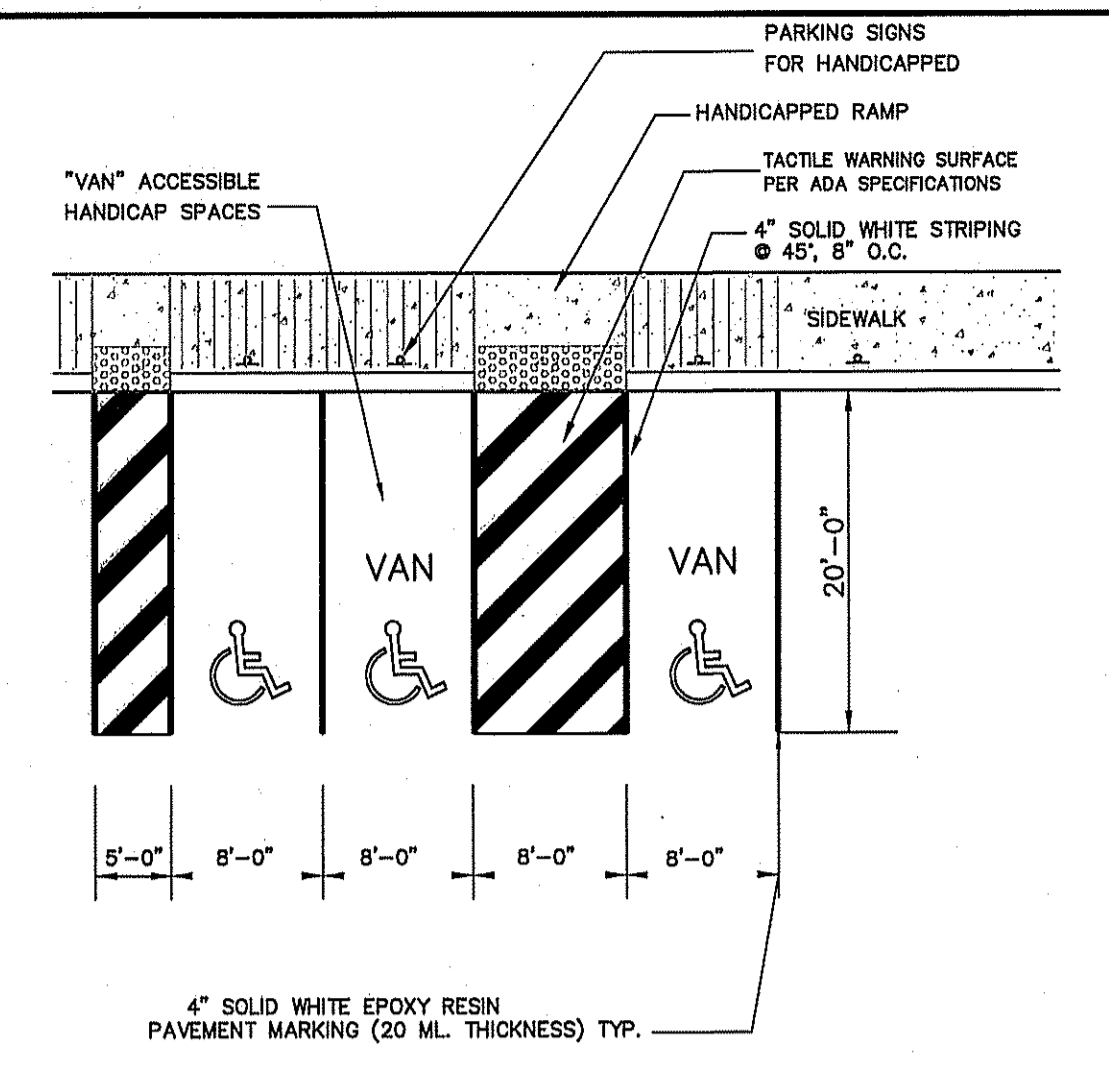
**EROSION CONTROL LEGEND**

- = DIRECTION OF STORMWATER FLOW
- = CONTOURS
- = INLET FABRIC (SILT SACK)
- = TEMPORARY SEDIMENT TRAP
- = TEMPORARY SWALE
- = TREES, BUSHES

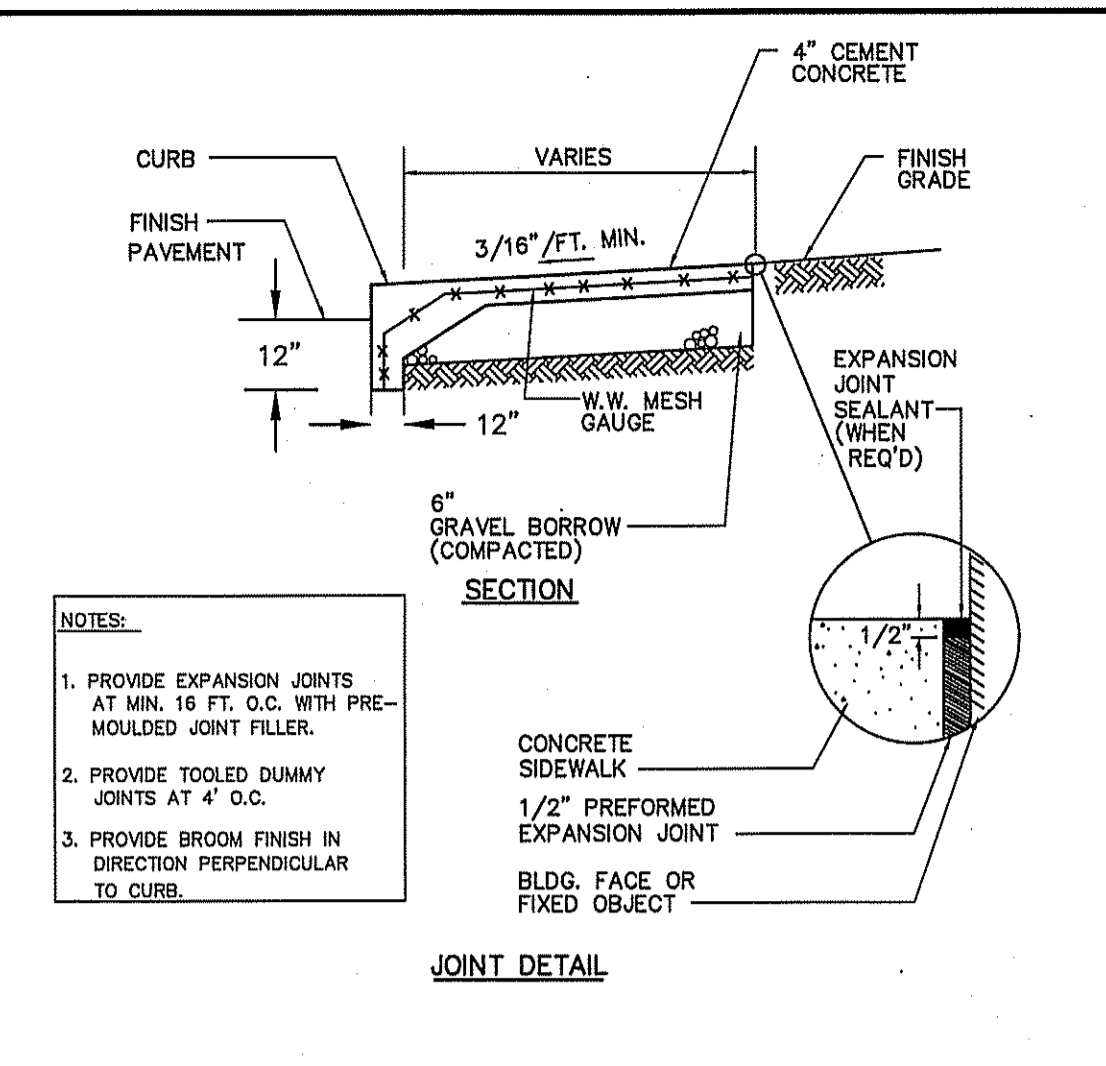




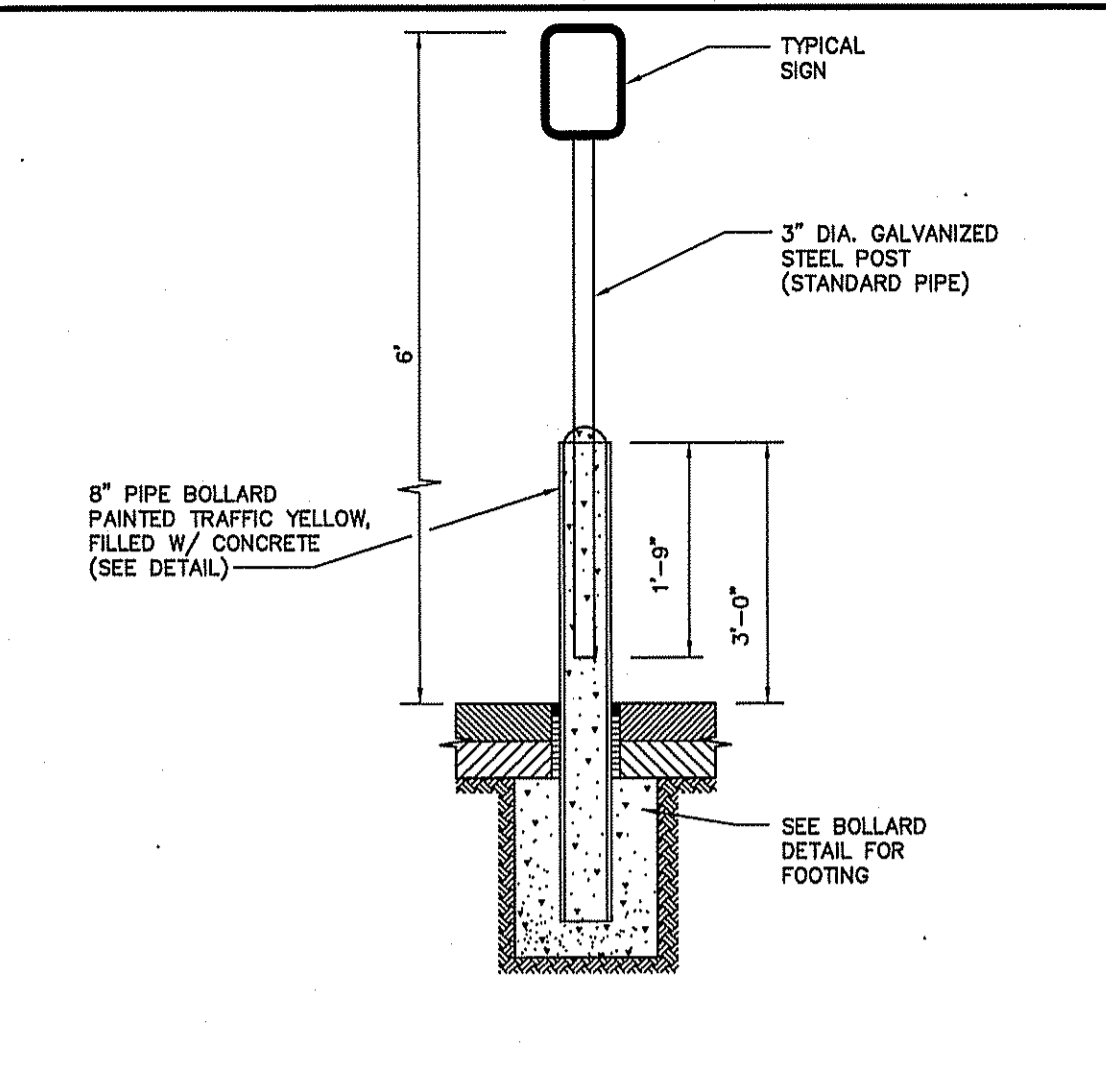
C-420 CONCRETE SIDEWALK DETAIL N.T.S.



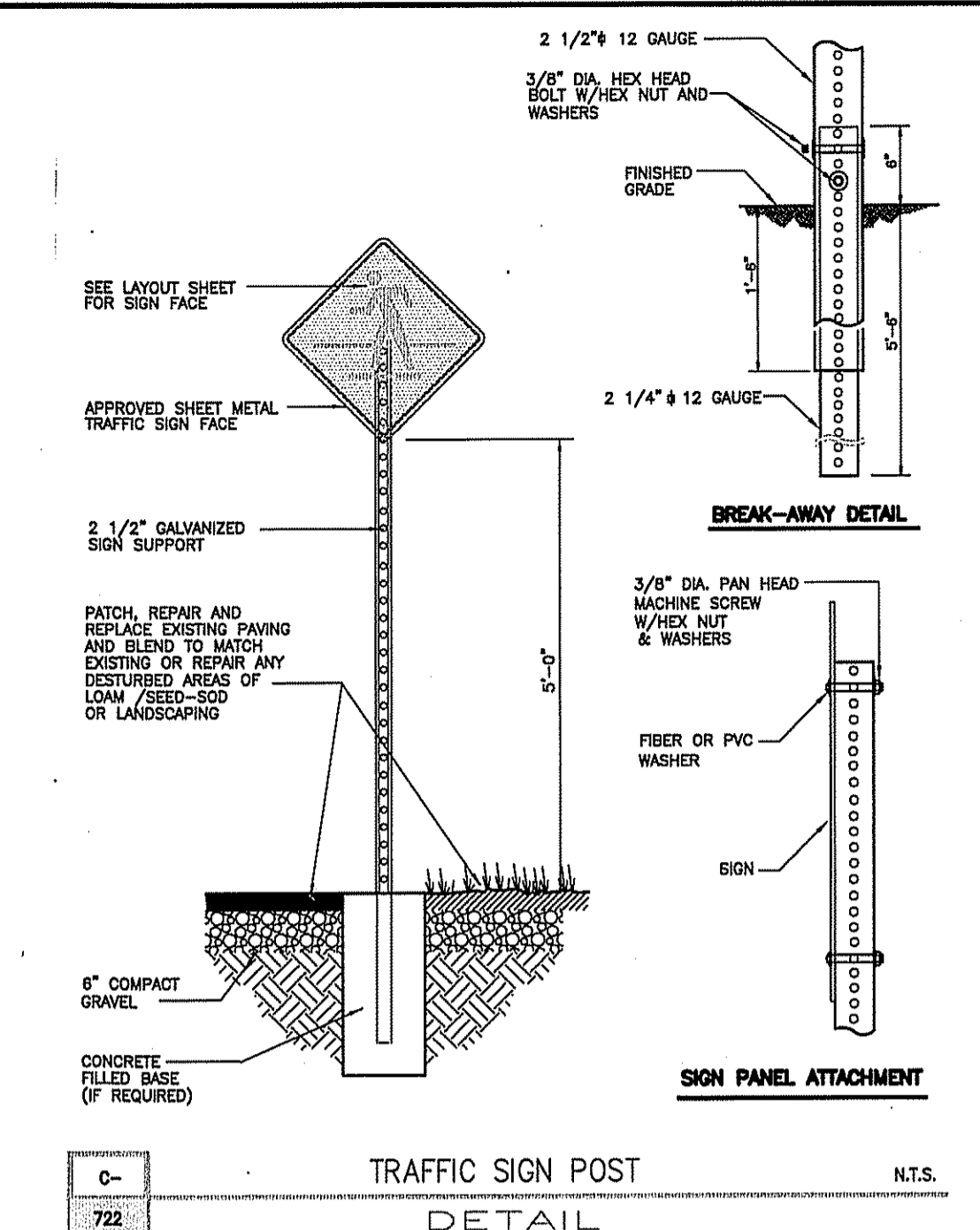
C-442 HANDICAP PARKING STALL LAYOUT DETAIL N.T.S.



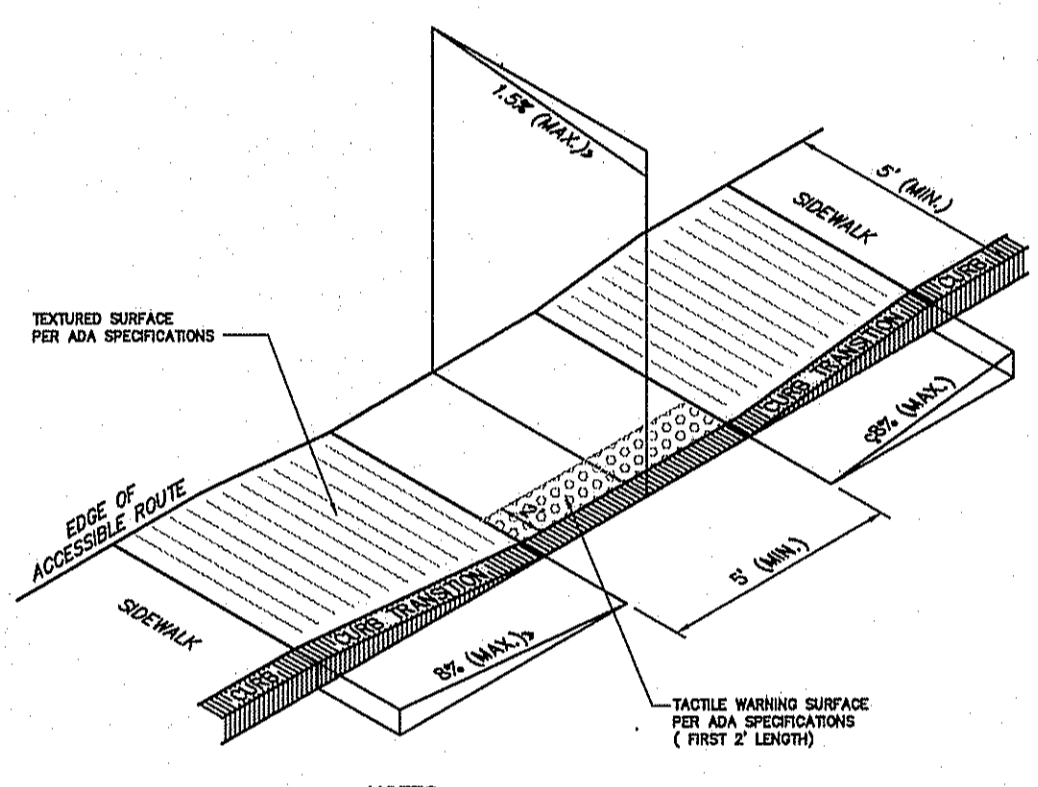
C-421 MONOLITHIC CONCRETE SIDEWALK AND CURB DETAIL N.T.S.



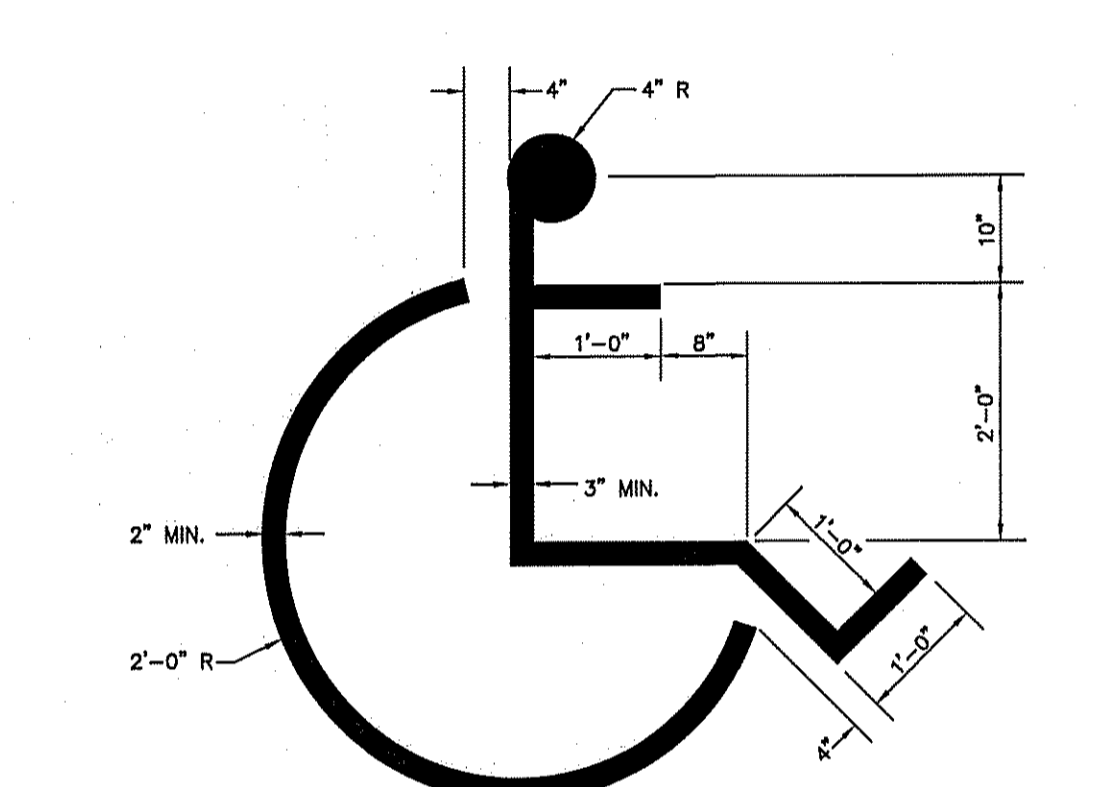
C-701 HANDICAP PARKING SIGN BASE (in paved area) DETAIL N.T.S.



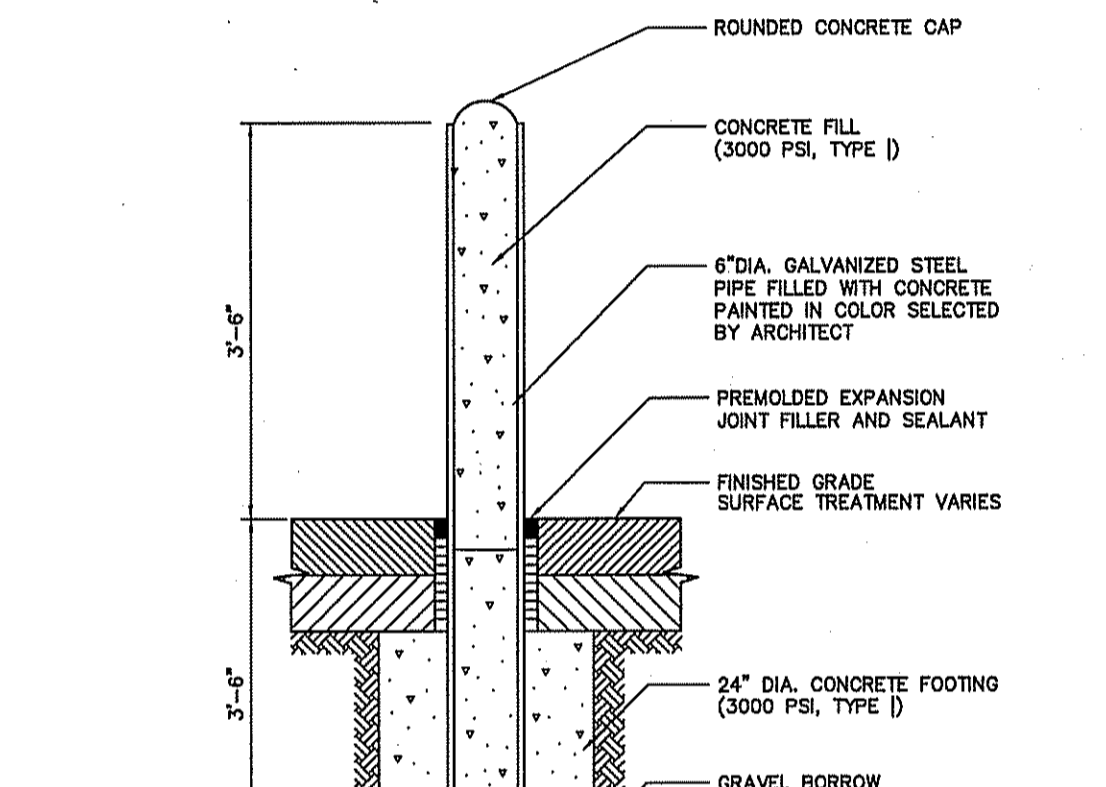
C-722 TRAFFIC SIGN POST DETAIL N.T.S.



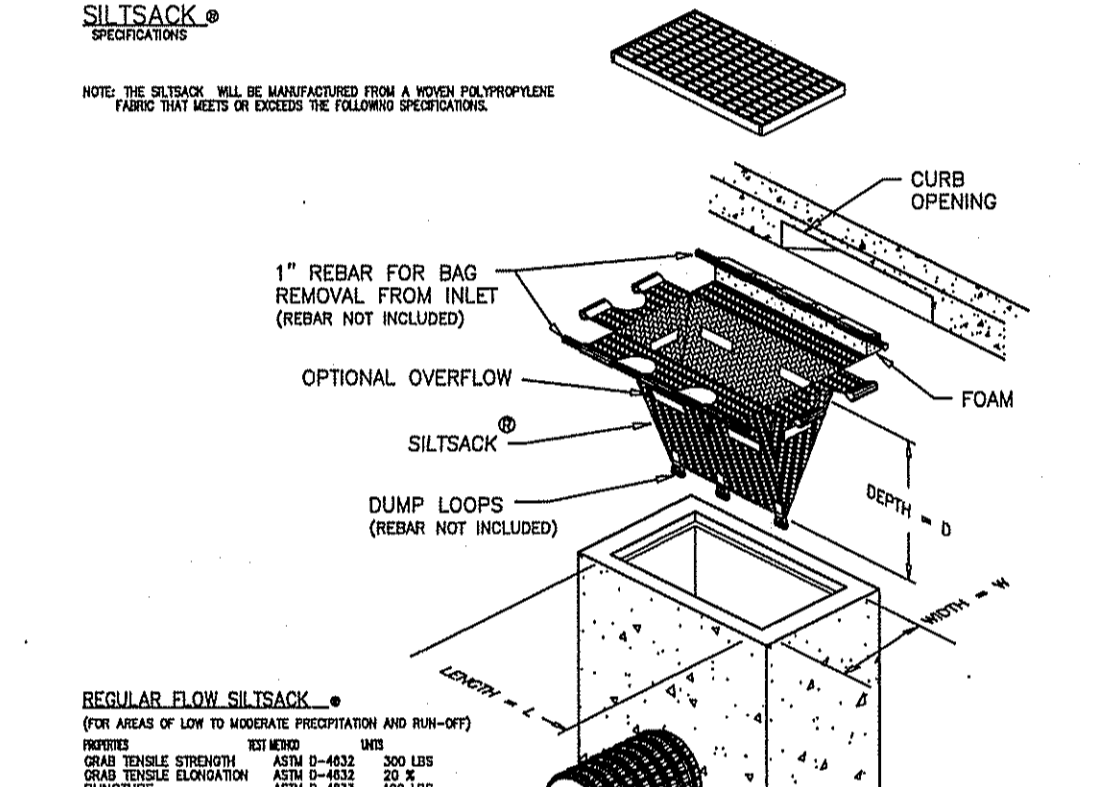
C-400 ACCESSIBLE CURB RAMP - TYPE 'A' DETAIL N.T.S.



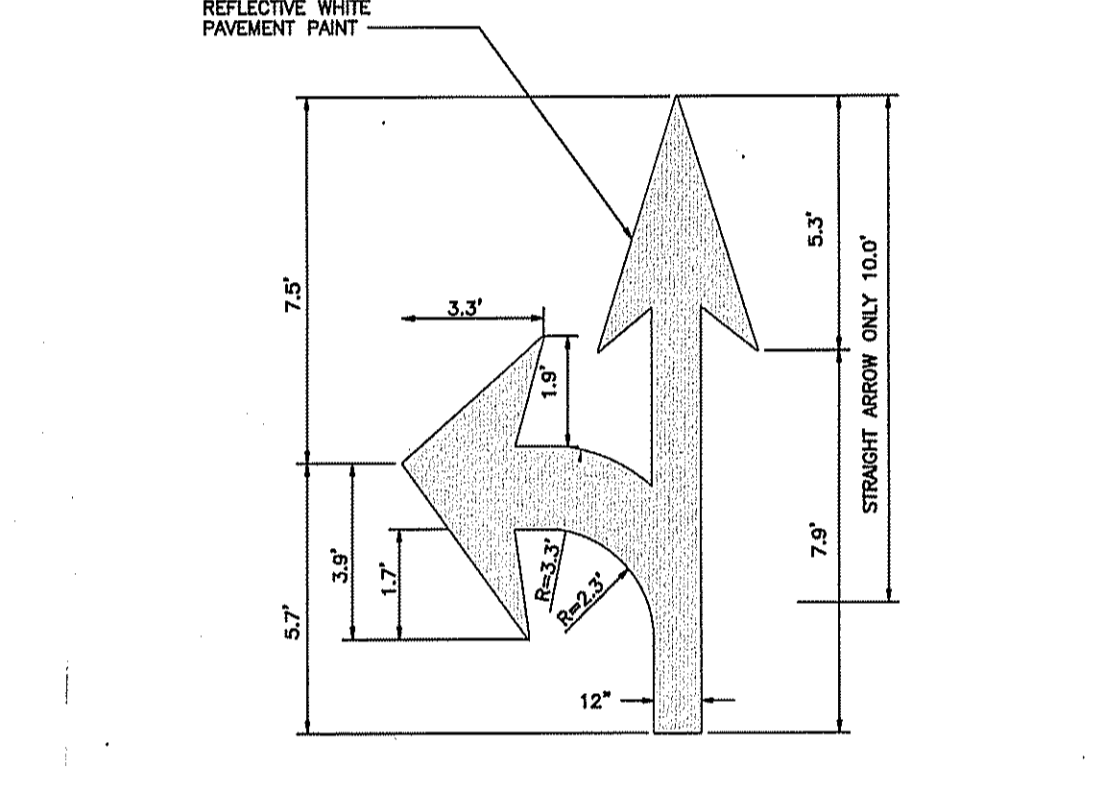
C-703 HANDICAPPED PARKING STALL SYMBOL DETAIL N.T.S.



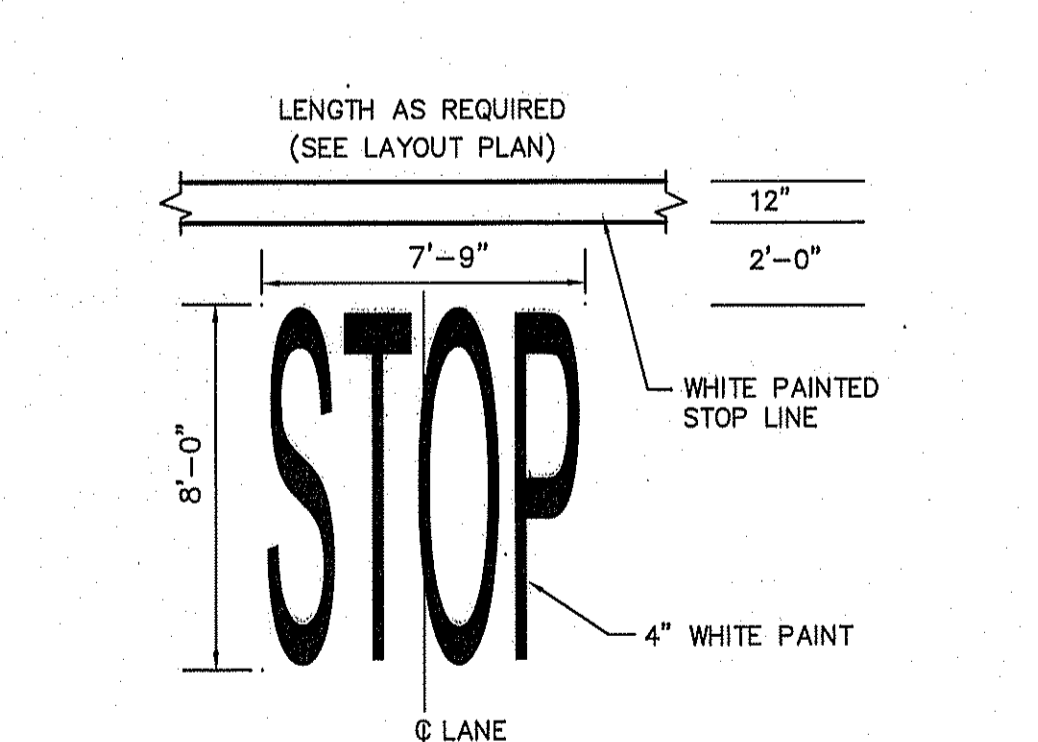
C-446 BOLLARD DETAIL N.T.S.



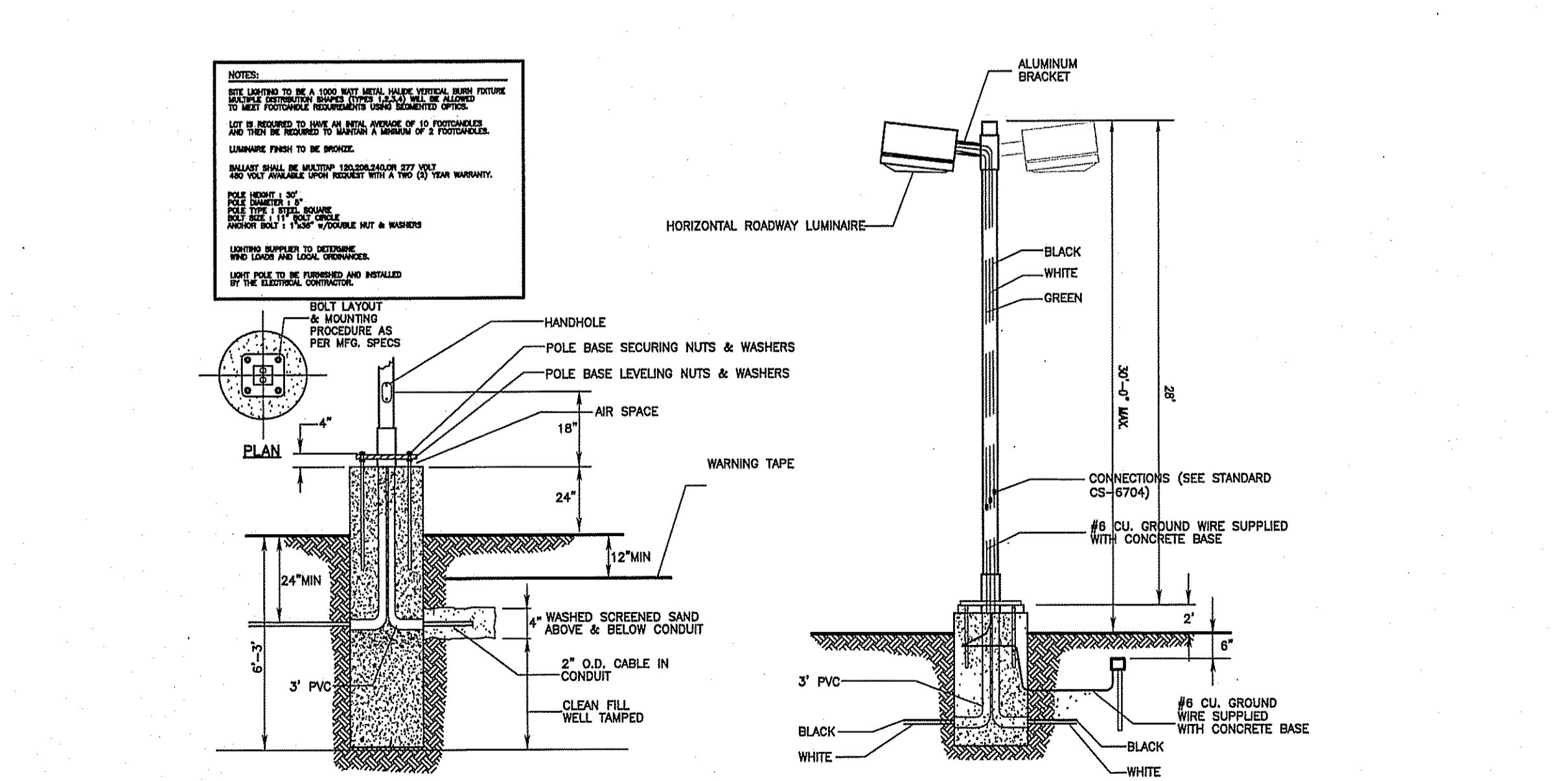
C-824 INLET PROTECTION SILT SACK DETAIL N.T.S.



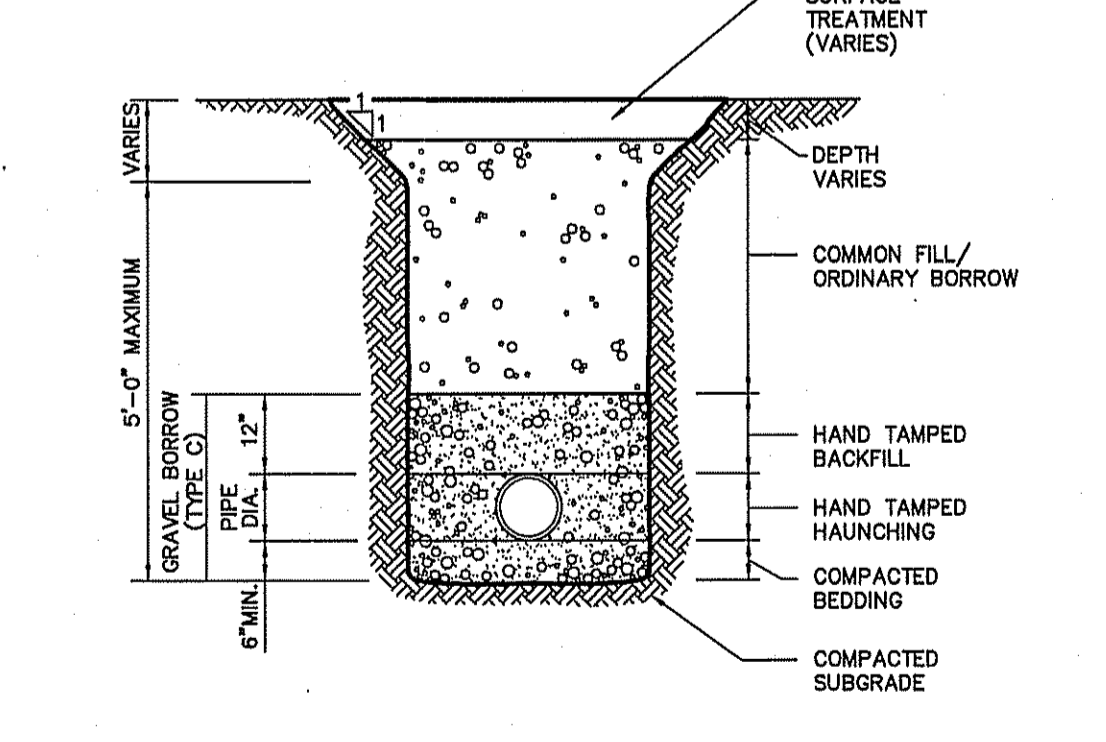
C-729 TURN AND ARROW TRAFFIC MARKING DETAIL N.T.S.



C-702 PAINTED PAVEMENT MARKING DETAIL N.T.S.



C-827 FOOT BASE MOUNTED LIGHT POLE DETAIL N.T.S.



C-118 UTILITY TRENCH DETAIL N.T.S.

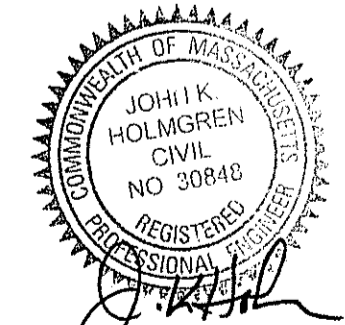
**JHE J.K. Holmgren Engineering**  
Registered Professional Engineers & Land Surveyors

Assessors Map: 20 Block: 9 Plot: 0  
399 Union Street, Ashland, Massachusetts

PREPARED FOR  
**RETAIL ASHLAND, LLC**

TITLE  
**DETAIL SHEET**

**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 : sfaria@jholmengren.com

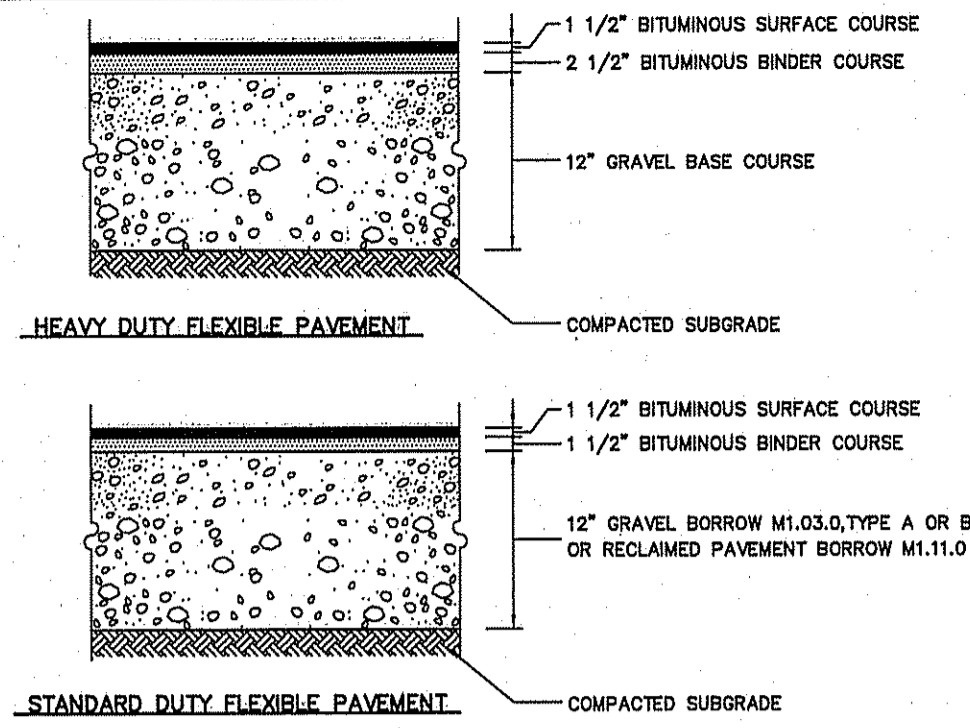


DATE: 06/01/2022

NO.	BY	DATE	REMARKS
1	JEG	09.15.22	REDUCE IMPERVIOUS AREA

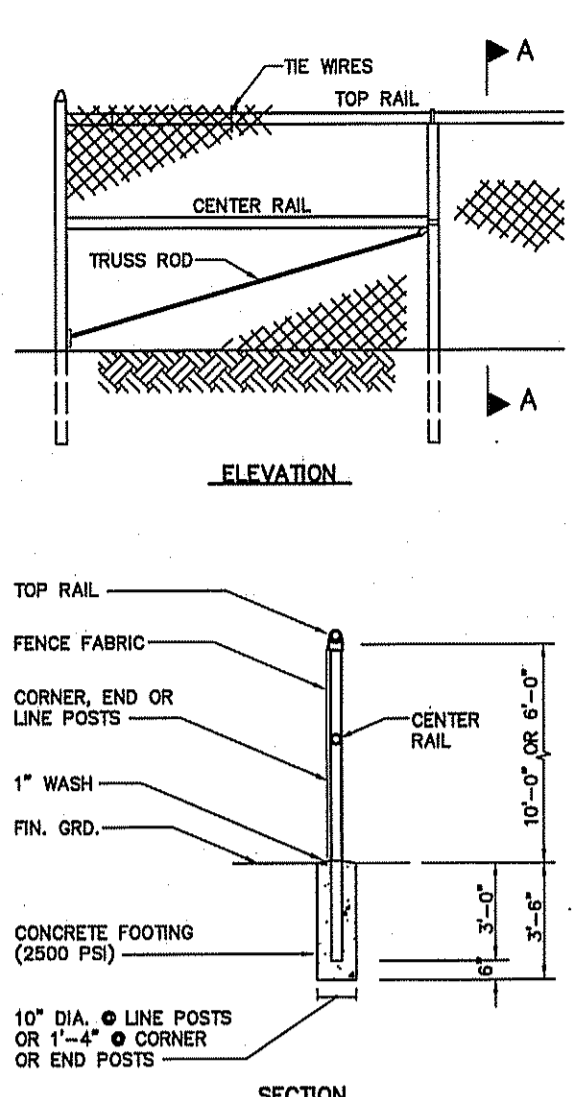
**C-7**  
DRAWING NUMBER

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2020-078



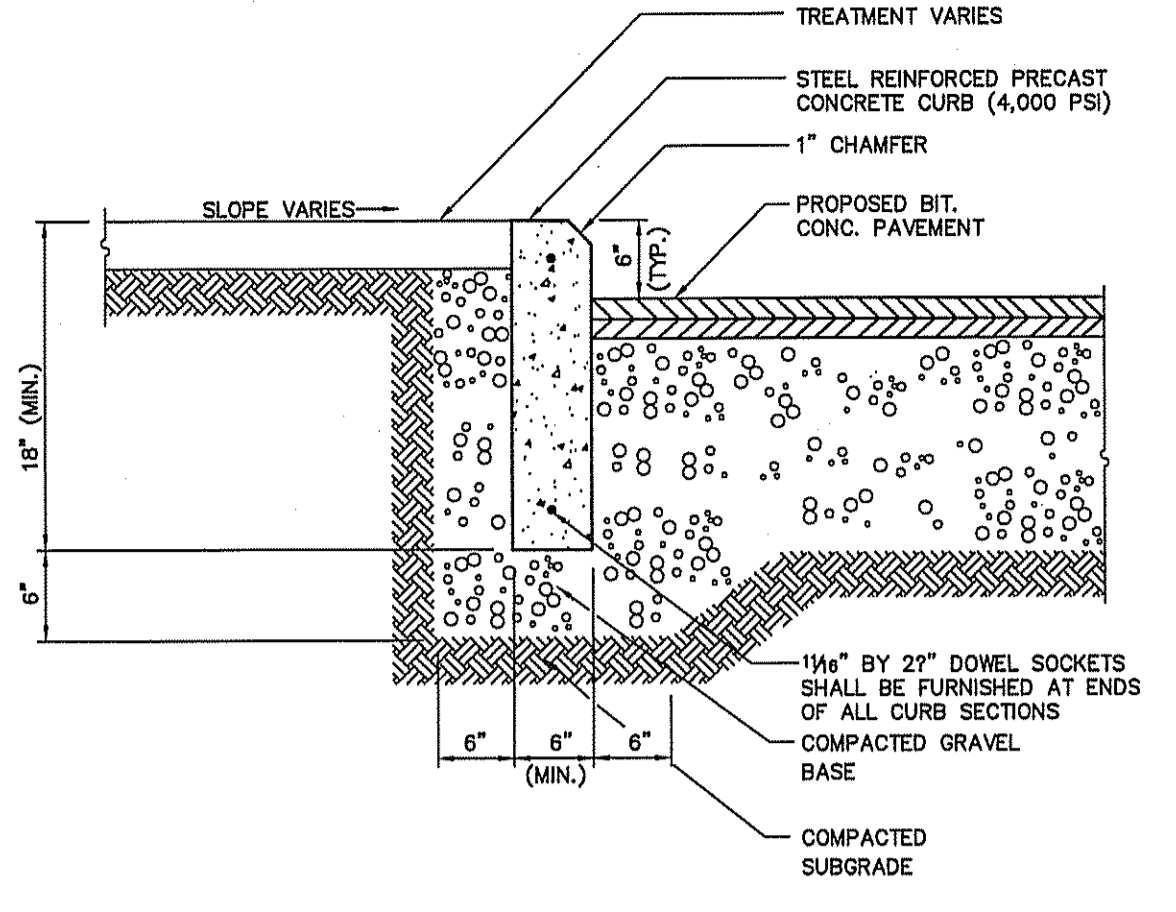
- COMPOSITION AND COMPACTION ACCEPTANCE TESTS**
- OBTAIN SAMPLES FROM PLANT TO INDICATE CONFORMANCE WITH M3.11.09
  - PAVEMENT DENSITY AS OUTLINED IN M3.11.09
  - ALL SAMPLES TO BE TAKEN IN ACCORDANCE WITH AASHTO T230
  - MATERIALS SHALL MEET OR EXCEED THE REQUIREMENTS SPECIFIED IN SECTION M3.11.00 DIVISION III, MATERIALS AND THE FOLLOWING SUBSECTION:
    - MINERAL AGGREGATE : M3.11.04
    - BITUMINOUS MATERIALS : M3.11.05
    - MINERAL FILLER : M3.11.05
    - COMPOSITION OF BASE COURSE : M3.11.02
  - THE BITUMINOUS CONCRETE BASE COURSE SHALL BE CONSTRUCTED IN ACCORDANCE WITH RELEVANT SECTIONS/PROVISIONS OF SECTION 460 FOR CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I-1
  - CLASS I BITUMINOUS PAVEMENT TYPE I-1 REQUIRED THE SAME TESTING AS BASE COURSE AND SHALL HAVE A MINIMUM OF 95% COMPACTION. TESTING TO BE COMPLETED BY METHODS OUTLINED IN M3.11.00

C-418 BITUMINOUS CONCRETE PAVEMENT SECTIONS N.T.S. DETAIL

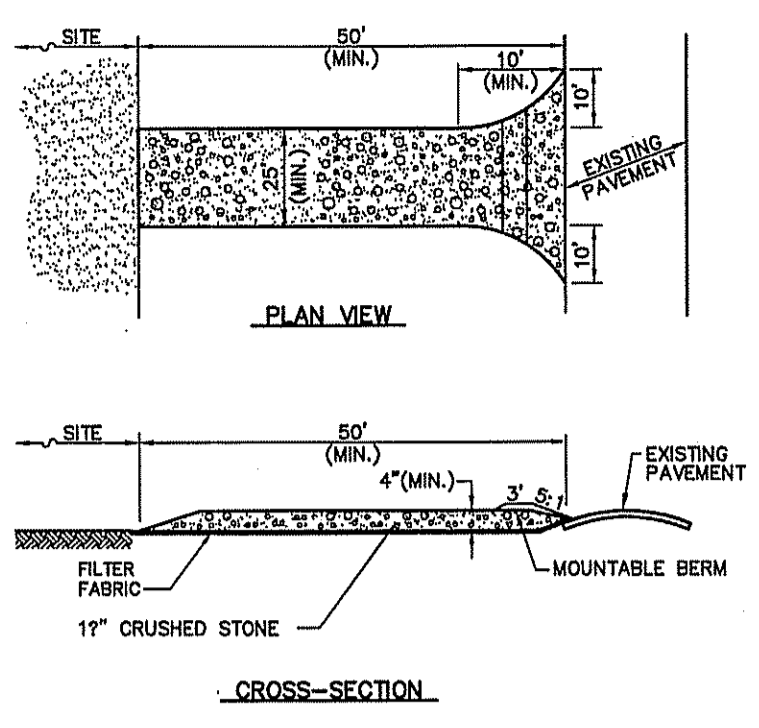


- NOTES**
- PULL POSTS SHALL BE SPACED AT INTERVALS NOT EXCEEDING 500 FEET.
  - END, GATE AND CORNER POSTS SHALL BE BRACED TO ADJACENT LINE POSTS (MORE THAN 90° CHANGE IN DIRECTION CONSTITUTES A CORNER).
  - FABRIC SHALL BE 0.145" WIRE, WOVEN INTO APPROXIMATELY 2" DIAMOND MESH.
  - ZINC-COATED STEEL FABRIC BASE METAL SHALL BE COATED WITH PRIME WESTERN SPECTER OR EQUALS.
  - ALUMINUM COATED STEEL FABRIC SHALL BE COATED WITH ALUMINUM ALLOY.
  - FENCE POSTS AND RAILS SHALL RECEIVE THE SAME COATING AND TREATMENT AS THE FENCE FABRIC (DESCRIBED ABOVE).
  - SEE SPECIFICATIONS FOR POST DIMENSIONS.

C-905 CHAIN LINK FENCE N.T.S. DETAIL

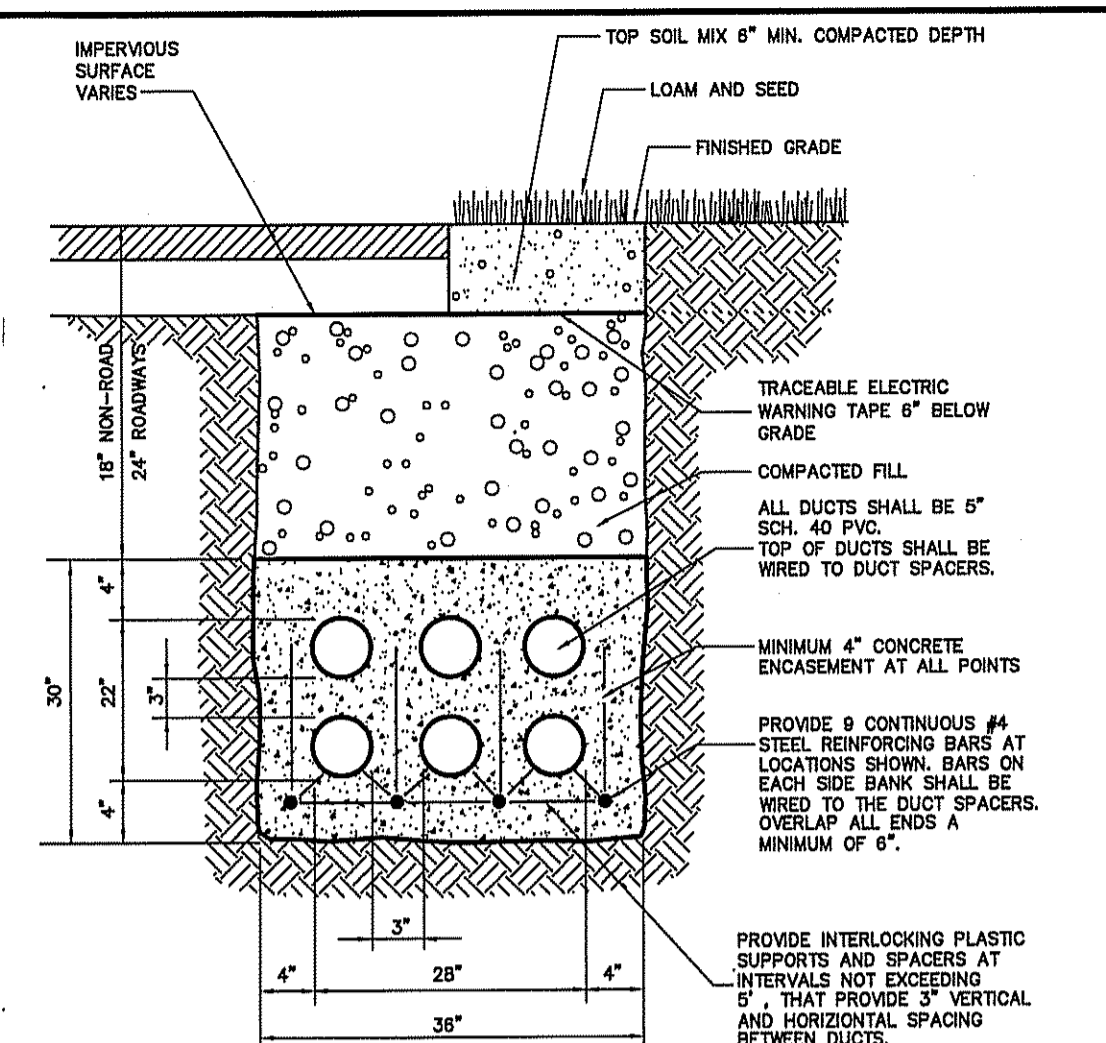


C-412 PRECAST CONCRETE CURB (PCC) N.T.S. DETAIL



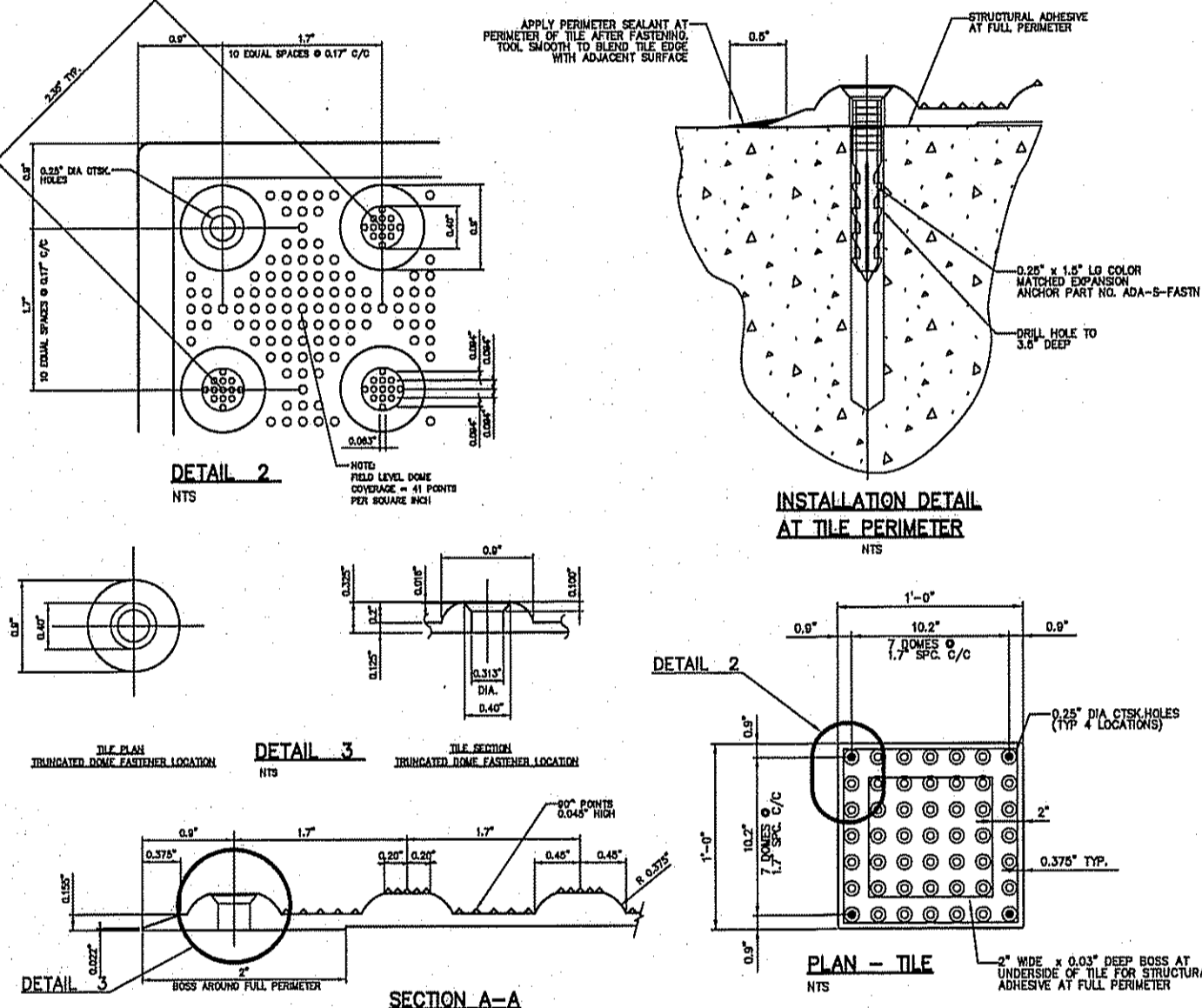
- NOTES**
- ENTRANCE WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
  - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC 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. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.

C-606 STABILIZED CONSTRUCTION EXIT N.T.S. DETAIL



- NOTES**
- 4000 PSI CONCRETE FILL AROUND DUCTS.
  - CONCRETE MAY BE POURED DIRECTLY INTO OPEN TRENCH WITHOUT FORMWORK.
  - DUCT SPACERS TO BE USED AT 5'-0" CENTERS BETWEEN DUCTS.

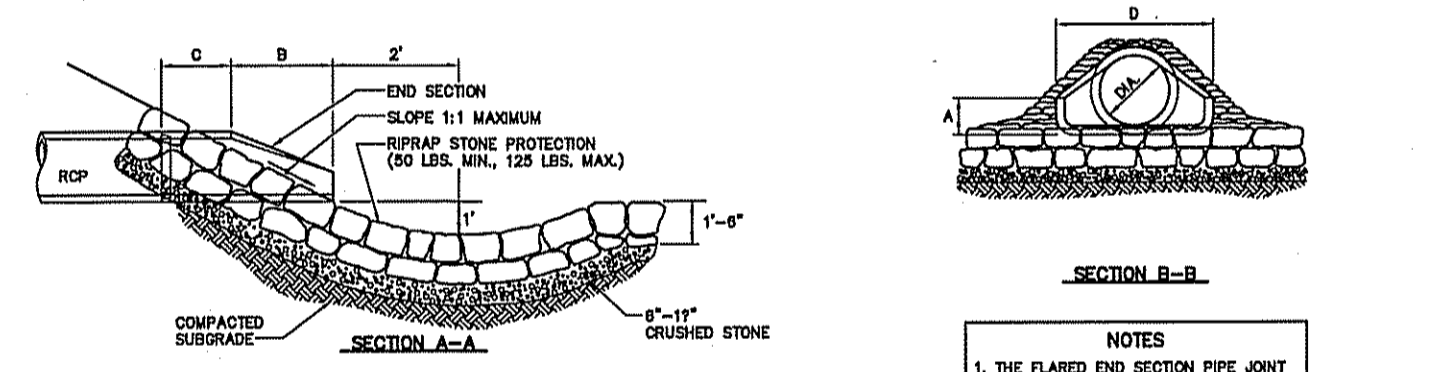
C-447 UTILITY DUCT BANK N.T.S. DETAIL



C-449 HANDICAPPED TACTILE WARNING TILE SURFACE N.T.S. DETAIL

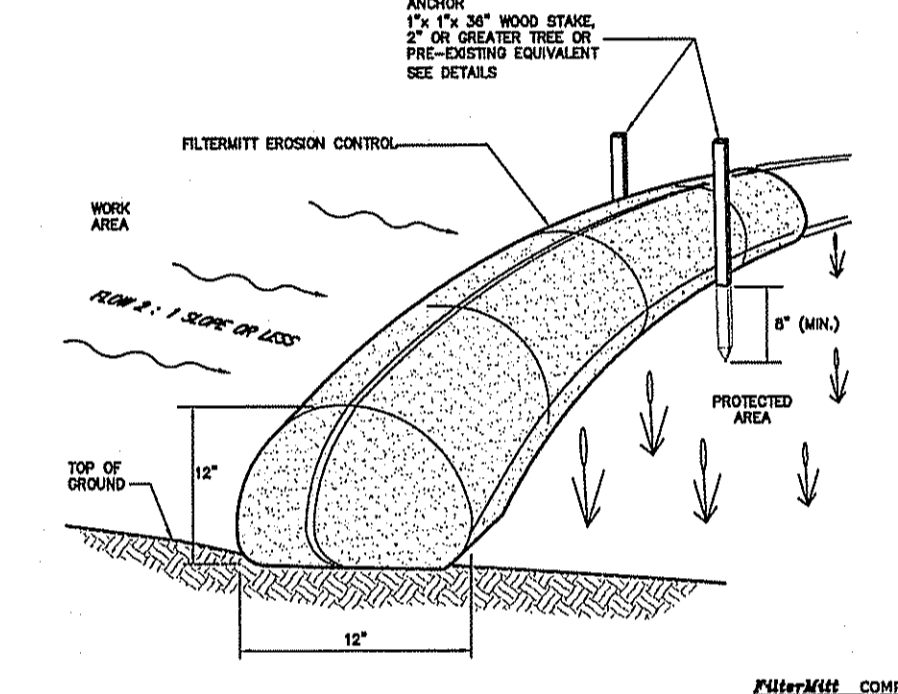
**DIMENSIONAL TABLE**

PIPE SIZE	A	B	C	D	E	R
12"	4"	2'-0"	4'-0"	2'-0"	2"	9"
15"	6"	2'-3"	3'-10"	2'-8"	2 1/2"	11"
18"	8"	2'-3"	3'-10"	3'-0"	3"	12"
24"	8 1/2"	3'-7 1/2"	2'-8"	4'-0"	3"	14"
30"	12"	4'-8"	1'-0"	5'-0"	3 1/2"	16"
36"	15"	5'-3"	2'-10"	6'-0"	4"	20"
42"	21"	5'-3"	2'-11"	6'-4"	4 1/2"	22"
48"	24"	6'-0"	2'-4"	7'-0"	5"	22"
54"	27"	5'-0"	2'-11"	7'-8"	5 1/2"	24"
60"	30"	5'-0"	3'-3"	8'-0"	6"	24"

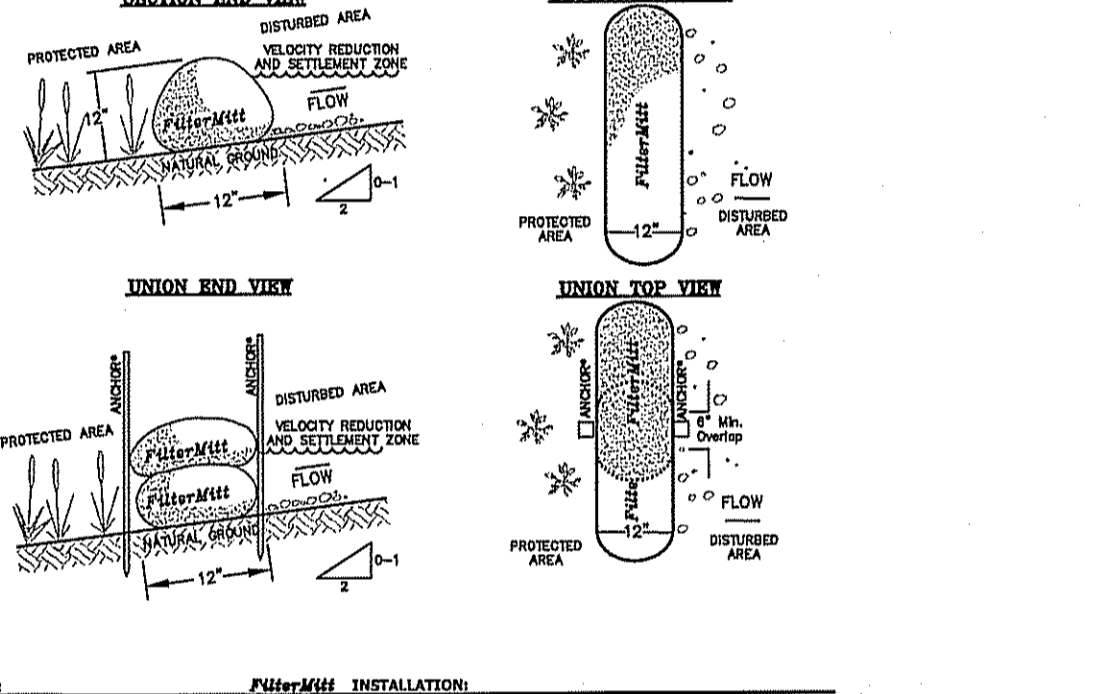


- NOTES**
- THE FLARED END SECTION PIPE JOINT SHALL BE SIMILAR TO THE MAIN RUN OF PIPE JOINTS.
  - FLARED END SECTIONS SHALL CONFORM AS SHOWN IN THE TABLE OR AS APPROVED BY THE ENGINEER.

C-114 FLARED END SECTION W/STONE PROTECTION N.T.S. DETAIL



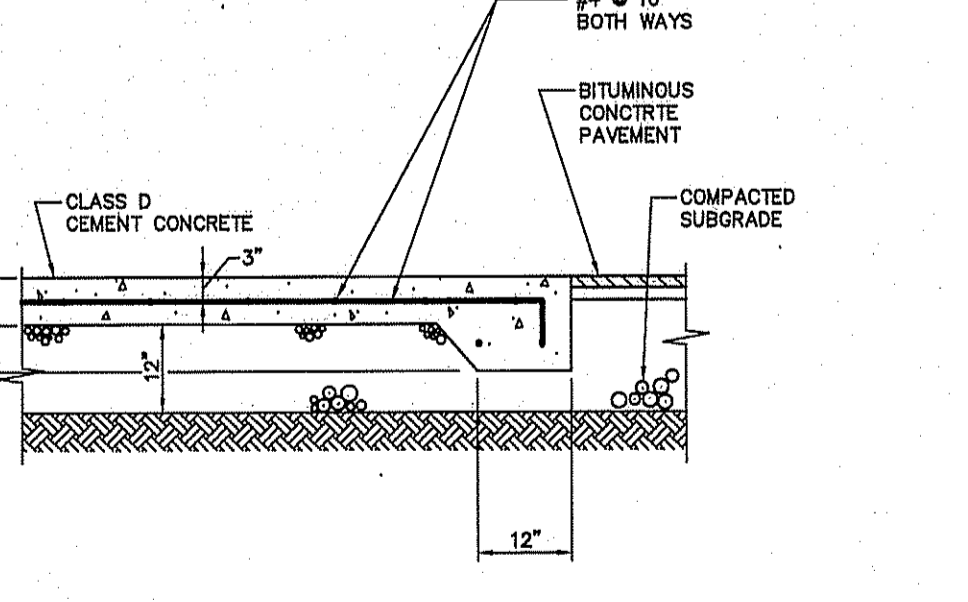
For more information visit [www.filtermitt.com](http://www.filtermitt.com) or call 800-368-7140. P.O. Box 217, Westford, MA 02145 (508) 264-7140



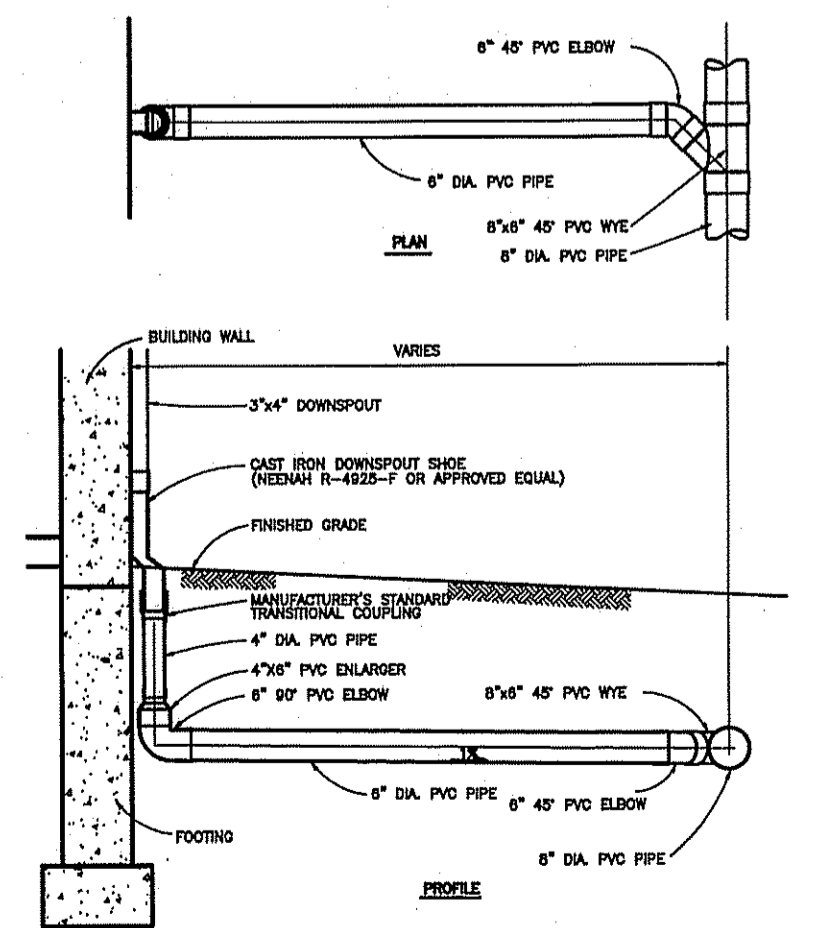
**Filtermitt COMPONENTS:** OUTSIDE CASING: 100% organic heaving. FILTER: 100% organic heaving. A blend of coarse and fine compost and substrate wood. Particle size: 100% passing a 3" screen; 50% passing a 1" screen; 20% passing a 3/8" screen; 10% passing a 1/4" screen. Weight: Approx. 600 lbs./cu. yd. (Var. 30 lbs./cu. yd.)

**Filtermitt INSTALLATION:** With the newest technology and equipment, sections can be constructed on site in lengths from 1' to 100'. Sections can also be delivered to the site in lengths from 1' to 8'. The flexibility of Filtermitt allows it to conform to any contour or terrain while holding a slightly undulating slope at 12" high by 18" wide. Where sections meet, there shall be an overlap of 4" or greater. Both sides shall be embedded (see notes, trees, etc.) to stabilize the union.

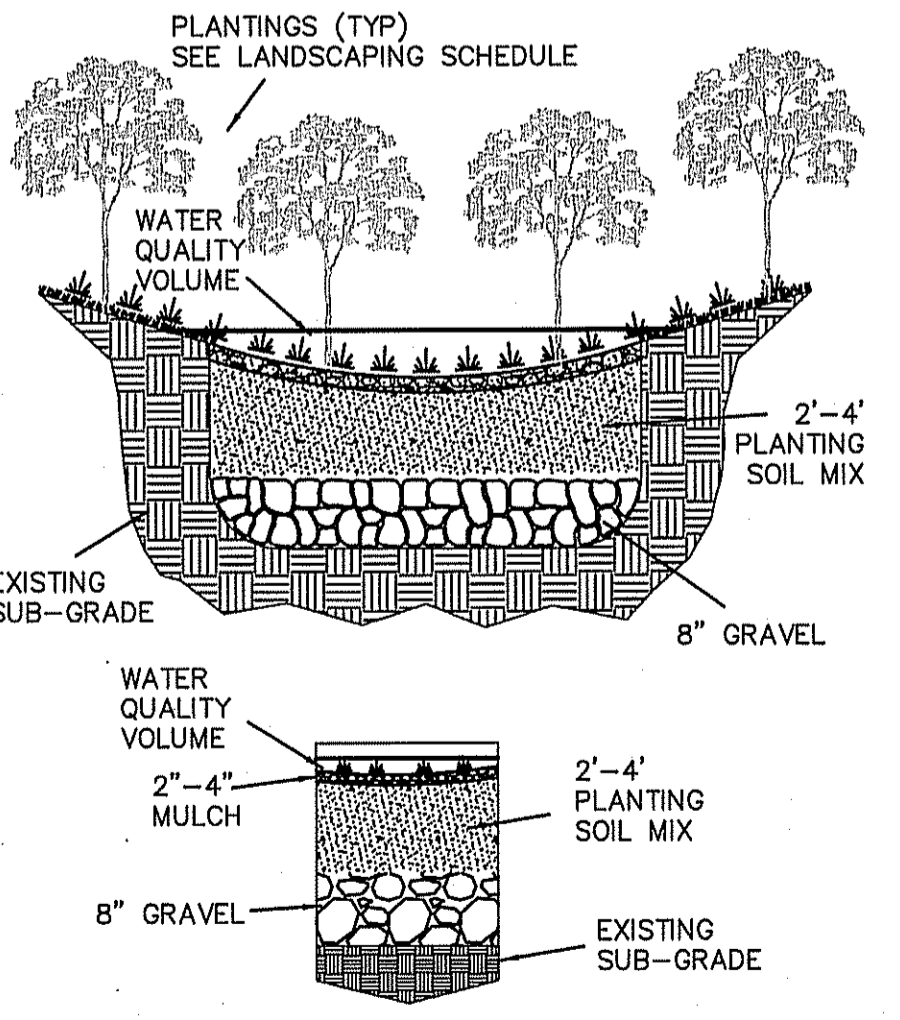
C-209 FILTERMITT EROSION CONTROL N.T.S. DETAIL



C-444 DUMPSTER PAD N.T.S. DETAIL



C-132 ROOF DRAIN N.T.S. DETAIL



- NOTES**
- PLANTING SOIL MIX SHALL CONSIST OF 40% SAND, 20-30% TOPSOIL AND 30-40% COMPOST.
  - SAND SHALL BE GRAVELLY SAND THAT MEETS ASTM D 42.

C-20 BIORETENTION BASIN N.T.S. DETAIL

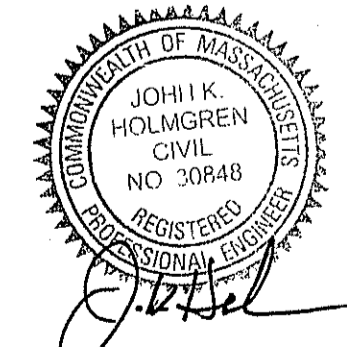
**JKE** J.K. Holmgren Engineering  
Registered Professional Engineers & Land Surveyors

Assessors Map: 20 Block: 9 Plot: 0  
399 Union Street, Ashland, Massachusetts

PREPARED FOR  
**RETAIL ASHLAND, LLC**

TITLE  
**DETAIL SHEET**

**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 - sfaria@jkholmgren.com



DATE: 06/01/2022

NO.	BY	DATE	REMARKS
1	JEG	09.15.22	REDUCE IMPERVIOUS AREA

**C-8**  
DRAWING NUMBER

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