

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 PRETREATMENT 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 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 AND HAY BALES AROUND NEW STRUCTURES IN ACCORDANCE WITH DETAIL #607 AND MAINTAIN THEM UNTIL FAVEMENT 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 SWM 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.

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. THEREAFTER, 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 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.

NOTES

1. MAINTAIN A STOCKPILE OF SILT SOCKS, 100FEET 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. MAINTAIN 7 CAR DT STACK (120 FT.) FROM ORDER POINT TO OR APPROVED ALTERNATIVE, TO CONTROL THE DUST.
4. DISTURBED AREAS SHALL BE TREATED WITH WATER DURING EXCAVATION/RIP-UP.

LANDSCAPE SCHEDULE					
SYMBOL NAME	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
ARAF	8	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 BUNALDA 'GOLDFLAME'	GOLD FLAME SPIREA	12-15" HT.	CONTAINER
TH	17	TAXUS MEDIA 'HICKSI'	HICKS YEW	30-36" HT.	CONTAINER
AC	2	AMELANCHIER CANADENSIS	SHADBLOW	8-10' HT.	B & B
PF	10	PIERIS FLORIBUNDA	MOUNTAIN PIERIS	18-24" HT.	CONTAINER
HQ	10	HYDRANGEA QUERCUS	OAKLEAF HYDRANGEA	18-24" HT.	CONTAINER
LF	14	LEUCOTHOE FONTAINESIANA	DROOPING LEUCOTHOE	12-15" 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, 807 CMR 1 - 10.14.10.4, WHICH PROHIBITS THE 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:

TEMPORARY SEEDING:	APPLICATION RATE:
SEED MIXTURE:	1 LB/1000 SF
RYEGRASS	

PERMANENT SEEDING IN LANDSCAPED AREAS:	APPLICATION RATE:
SEED MIXTURE:	85 LBS/1000 SF
PERENNIAL RYEGRASS	52 LBS/1000 SF
CREeping RED FESCUE	7 LBS/1000 SF
REDTOP	

PERMANENT SEEDING IN SLOPED AREAS:	APPLICATION RATE:
SEED MIXTURE:	30 LBS/1000 SF
PERENNIAL RYEGRASS	35 LBS/1000 SF
CREeping RED FESCUE	5 LBS/1000 SF
REDTOP	5 LBS/1000 SF
ALFALFA CLOVER	5 LBS/1000 SF
BIRDFOOT TREFOIL	5 LBS/1000 SF

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

RETAIL ASHLAND, LLC

TITLE
LANDSCAPE DEVELOPMENT & EROSION CONTROL PLAN

J.K. HOLMGREN ENGINEERING, INC.
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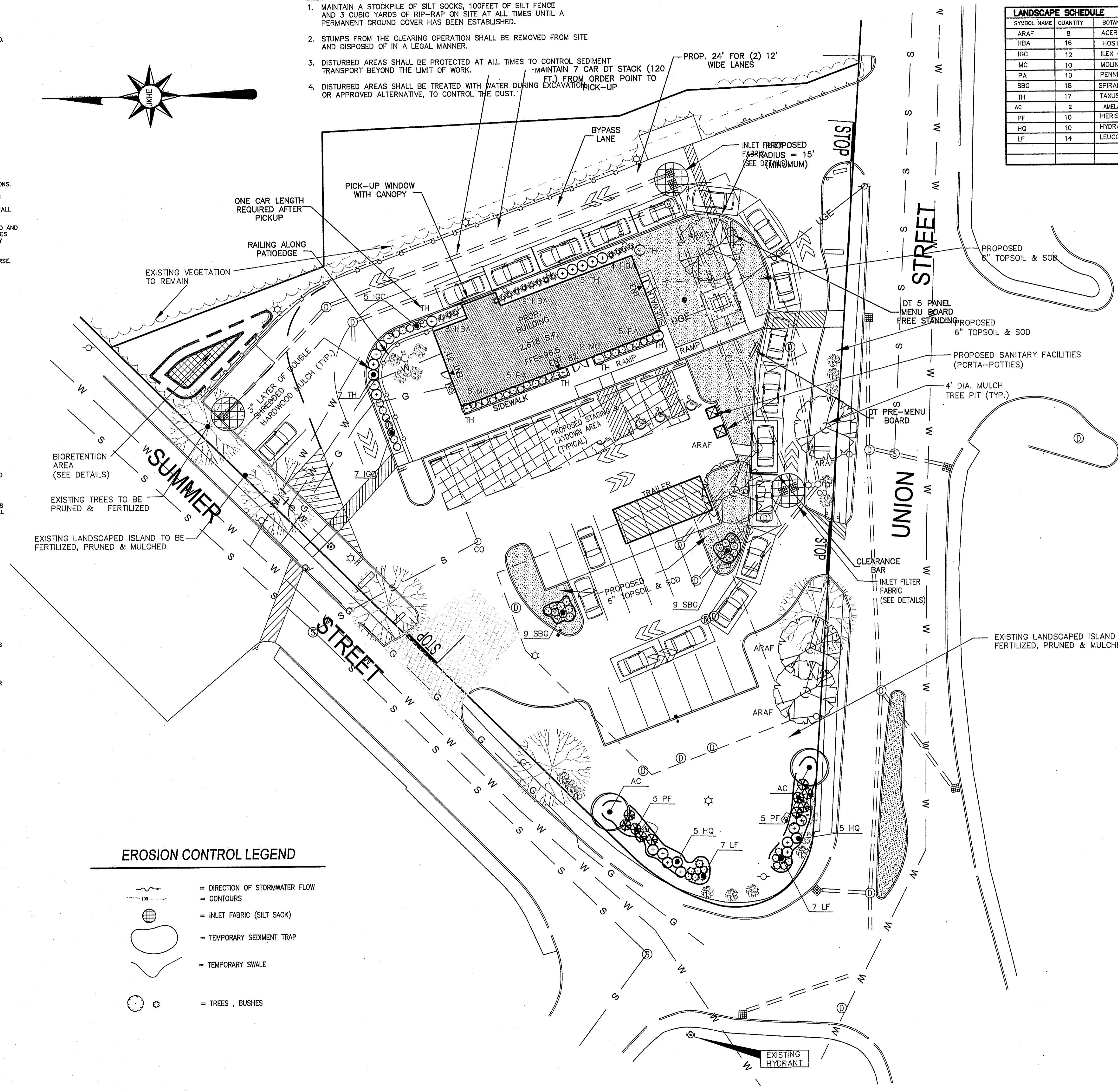
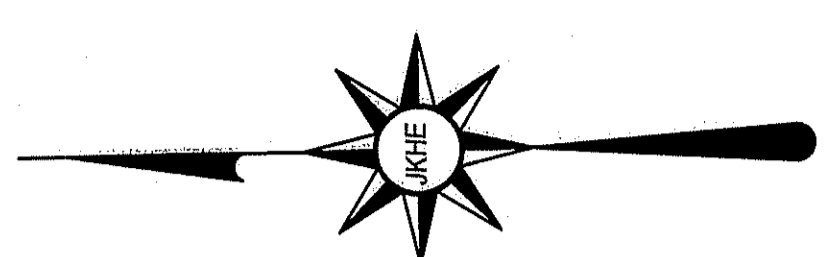


SCALE: 1" = 20' DATE: 06/01/2022

NO.	BY	DATE	REMARKS
2	SSR	09.29.22	ADDITIONAL LANDSCAPE
1	JEG	09.15.22	REDUCE IMPERVIOUS AREA

DRAWING NUMBER: **C-6**

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2020-078

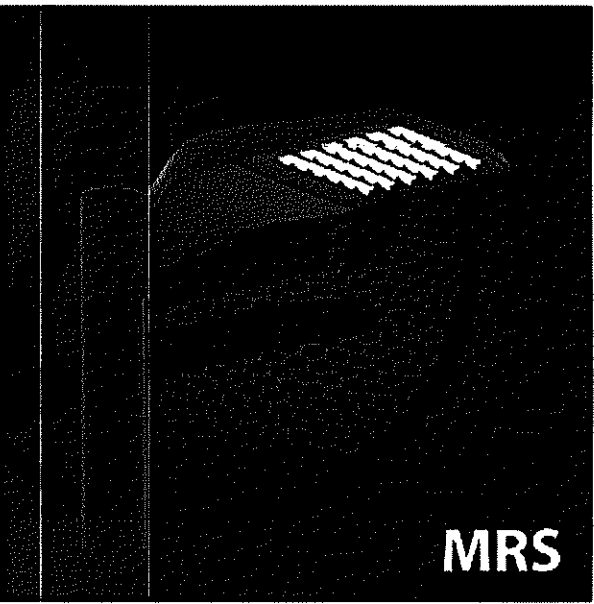
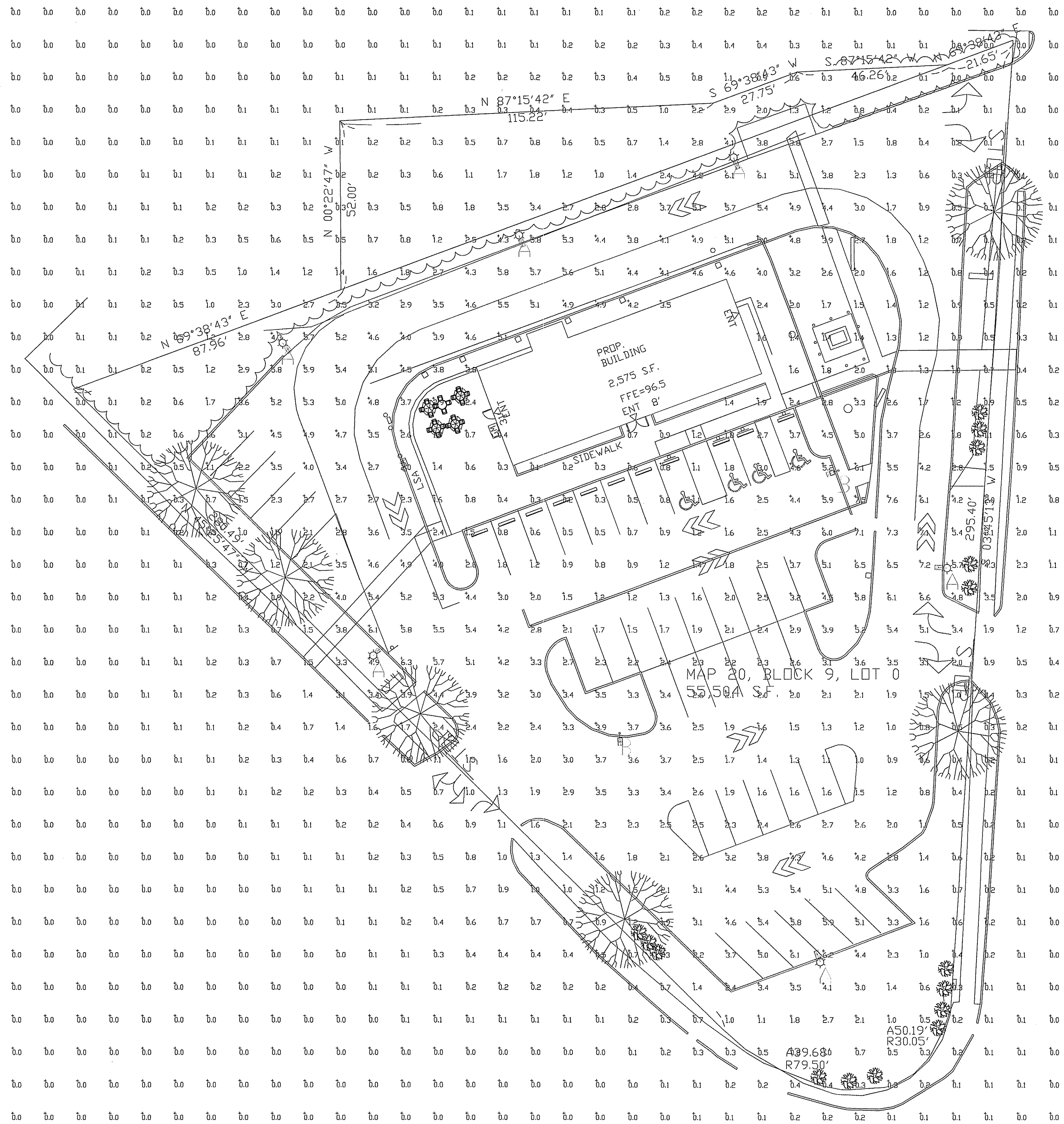


LEGEND

- = 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

EROSION CONTROL LEGEND

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



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CALCULATION POINTS @ GRADE	Illuminance	Fc	1.33	7.6	0.0	N.A.	N.A.
PARKING & DRIVING SUMMARY	Illuminance	Fc	3.04	7.6	0.1	30.40	76.00

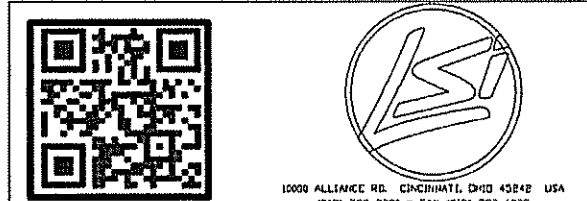
Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Description	LLD	LDD	LLF	Arr. Lum. Lumens	Arr. Watts
	6	A	SINGLE	MRS-LED-2IL-SIL-FT-50-70CRI-SINGLE-20' POLE+2' BASE	1.000	1.000	1.000	20025	165
	2	B	SINGLE	MRS-LED-2IL-SIL-5W-50-70CRI-SINGLE-20' POLE+2' BASE	1.000	1.000	1.000	19973	165

**PHOTOMETRIC EVALUATION
NOT FOR CONSTRUCTION**

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with the Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted. Fixture nomenclature noted does not include mounting hardware or poles. This drawing is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

Total Project Watts
Total Watts = 1320



LIGHTING PROPOSAL LD-156172

STARBUCKS

SCALE: 1"=20' 0 20