

SALEM WILLOWS PHASE 2 IMPROVEMENTS

75% PERMITTING DOCUMENTS

June 6, 2023



SITE LOCUS PLAN

SCALE: NTS

PROJECT DESCRIPTION

SALEM WILLOWS PHASE 2 IMPROVEMENTS INCLUDE:

- IMPROVING PEDESTRIAN CIRCULATION, ADDING NEW PEDESTRIAN PATHS, AND REDUCING IMPERVIOUS SURFACES.
- INSTALLING BIORETENTION BASINS.
- RE-GRADING AND IMPROVING EXISTING PICNIC AREAS.
- RESTORING DEGRADED AREAS WITH NATIVE TREES, SHRUBS, AND GROUNDCOVERS.

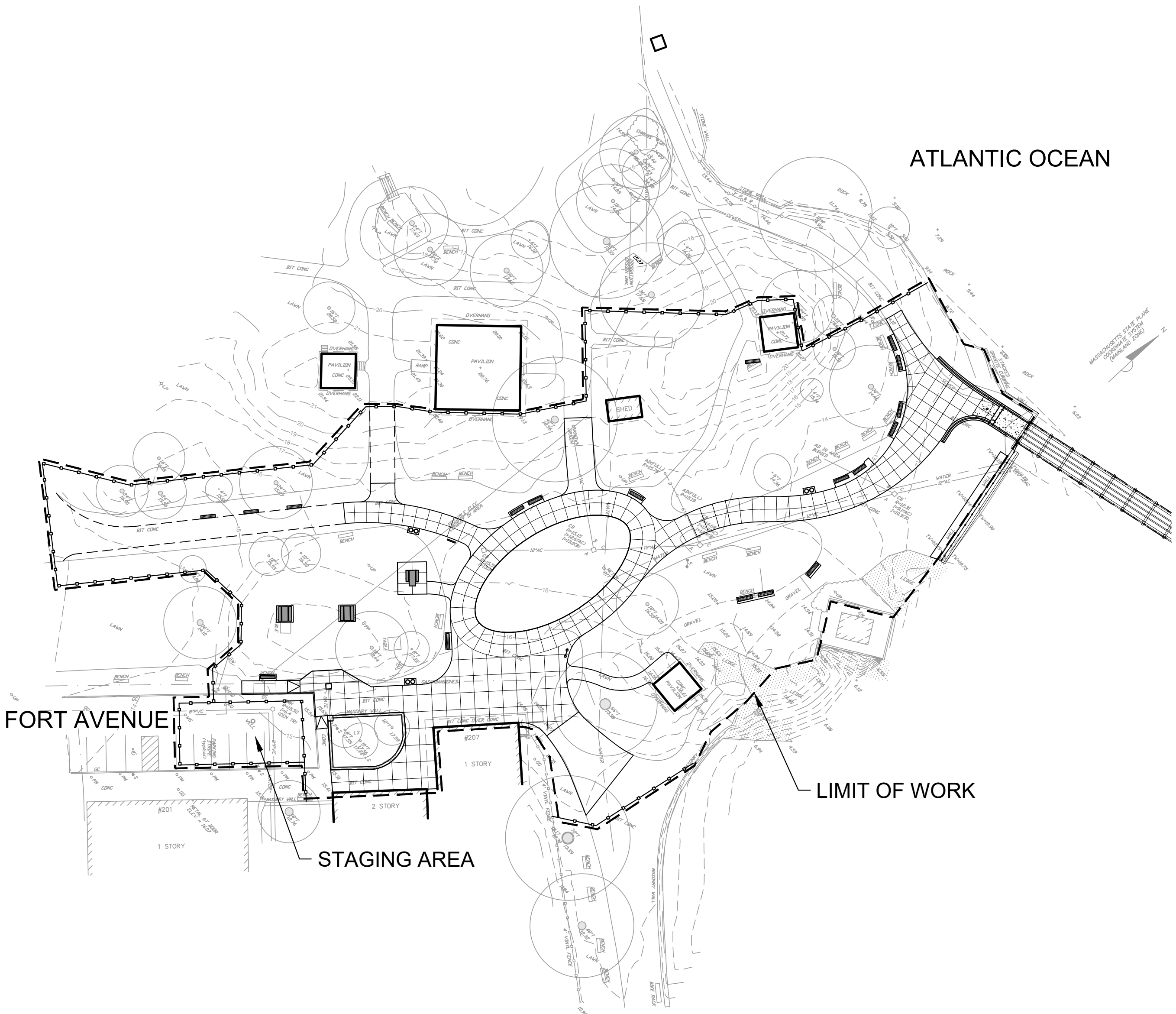
GENERAL NOTES:

1. CONTRACTOR MAY BE ASKED BY OWNER TO SUSPEND CONSTRUCTION OPERATIONS TEMPORARILY AS TO AVOID CONFLICTS WITH LARGE PUBLIC EVENTS OR LARGE STORM EVENTS. CONTRACTOR WILL NOT BE COMPENSATED FOR COSTS RELATING TO SHUTDOWNS FOR THESE REASONS.
2. CONTRACTOR SHALL BLOCK ACCESS TO THE PATHS AND ACCESS ROADS IN THE VICINITY OF THE LIMITS OF CONSTRUCTION AFTER WORK HOURS AND ON WEEKENDS. CONTRACTOR TO PROVIDE LOCKABLE GATES FOR THE CONSTRUCTION FENCE.
3. STORAGE AREAS FOR CONTRACTOR'S EQUIPMENT SHALL BE WITHIN THE LIMITS OF WORK BUT OUTSIDE THE RESOURCE AREAS AND AS APPROVED BY THE OWNER.
4. THE CONTRACTOR SHALL NOT BE PERMITTED TO STARTUP OR OPERATE EQUIPMENT BEFORE OR AFTER ESTABLISHED WORKING HOURS OF 7:00 AM TO 4:00 PM, MONDAY THROUGH FRIDAY WITHOUT WRITTEN APPROVAL OF THE OWNER, UNLESS NOTED OTHERWISE. NO WORK SHALL OCCUR ON HOLIDAYS OBSERVED BY THE CITY OF SALEM.
5. NO WORK SHALL BE PERFORMED OUTSIDE LIMIT OF WORK WITHOUT PRIOR AUTHORIZATION FROM OWNER.
6. CONTRACTOR SHALL PROTECT ALL TRAVELED WAYS FROM DUST AND CONSTRUCTION DEBRIS AT ALL TIMES.
7. UNLESS OTHERWISE INDICATED ON THE DRAWINGS ALL AREAS ADJACENT TO THE LIMITS OF CONSTRUCTION WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
8. THE EXISTING SURVEY PREPARED BY PRECISION LAND SURVEY, IS A COMBINATION OF TWO SURVEYS: DECEMBER 1, 2010 AND APRIL 11, 2013.
9. THE ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988, AND WERE DETERMINED BY GPS OBSERVATIONS AND AN OPUS REDUCTION PERFORMED ON OCTOBER 3, 2019.
10. THIS PLAN AND THE SURVEY ON WHICH IT WAS BASED WERE PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND ARE SUBJECT TO THE FINDINGS SUCH A REPORT MAY DISCLOSE.
11. BOUNDARY LINES WERE NOT INVESTIGATED AS PART OF THE CURRENT WORK EFFORT AND NOTHING SHOWN HEREON SHOULD BE INTERPRETED AS SUCH.

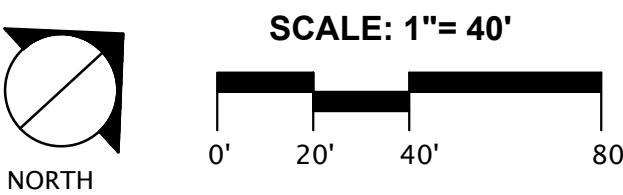
DRAWING INDEX

SHEET NO.	SHEET TITLE
L-1	COVER SHEET
L-2	EXISTING CONDITIONS PLAN
L-3	SITE PREPARATION PLAN
L-4	LAYOUT AND MATERIALS PLAN
L-5	GRADING AND DRAINAGE PLAN
L-6	PLANTING PLAN
L-7	ADD ALTERNATE ENLARGEMENT PLANS AND SCHEDULES
L-8	SITE PREPARATION DETAILS
L-9/L-10	SITE IMPROVEMENT DETAILS
L-11	PLANTING DETAILS AND PLANT SCHEDULE
E-1	ELECTRICAL DEMOLITION PLAN
E-2	ELECTRICAL POWER PLAN
TM-1	TRAFFIC MANAGEMENT PLAN

12. THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY UTILITY CONNECTIONS OR CROSSINGS OF PROPOSED AND EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES RELATIVE TO THE LOCATIONS AND ELEVATIONS OF THEIR LINES. THE CONTRACTOR SHALL KEEP A RECORD OF ANY DISCREPANCIES OR CHANGES IN THE LOCATIONS OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION, ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
13. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES EXCEPT THOSE NOTED TO BE ABANDONED OR REMOVED & DISPOSED.
14. CONTRACTOR SHALL PROTECT EXISTING BENCHMARKS.
15. AT LEAST 72 BUSINESS HOURS PRIOR TO ANY EXCAVATION WORK, THE CONTRACTOR SHALL PREMARK THE AREA IN WHITE AND NOTIFY THE DIG SAFE CENTER (TEL. NO. 1-888-DIG-SAFE) AND ALL AFFECTED PRIVATE AND/OR PUBLIC UTILITIES TO PERMIT STREET MARKING OF THEIR LINES.
16. CONTRACTOR SHALL STAKE LIMITS OF BIORETENTION BASINS FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO COMMENCING EARTH DISTURBANCE.
17. THE CONTRACTOR SHALL VERIFY ALL EXISTING GRADES IN THE FIELD AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE EXISTING AND PROPOSED CONDITION TO THE OWNER'S REPRESENTATIVE.
18. ALL PROPOSED SURFACES SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT SURFACES. ALL TRANSITIONS IN EARTHWORK SHALL BE BLENDED SMOOTHLY, AND SHALL ENSURE POSITIVE DRAINAGE.
19. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS WITH LOAM AND SEED.



PROJECT LOCATION PLAN



HATCH

27 School Street, Boston, MA 02108
tel. 617-521-8611 www.hatch.com

Client/Owner:

City of Salem
98 Washington St.
Salem, MA 01970

Stamp:



SALEM WILLOWS

PHASE 2 IMPROVEMENTS

SALEM, MA

75% PERMITTING DOCUMENTS

Project:

Job Number:

H-368807

Date:

June 6, 2023

Drawn By:

MP

Designed By:

JB

Reviewed By:

DB

Revisions

Number:

Description:

Date:

Sheet Title:

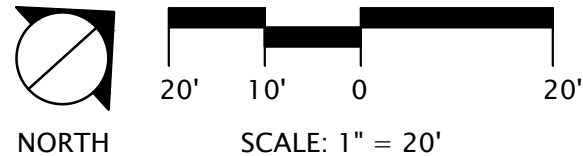
COVER SHEET

Sheet No:

L-1

- — 3 — —

EXISTING TREE



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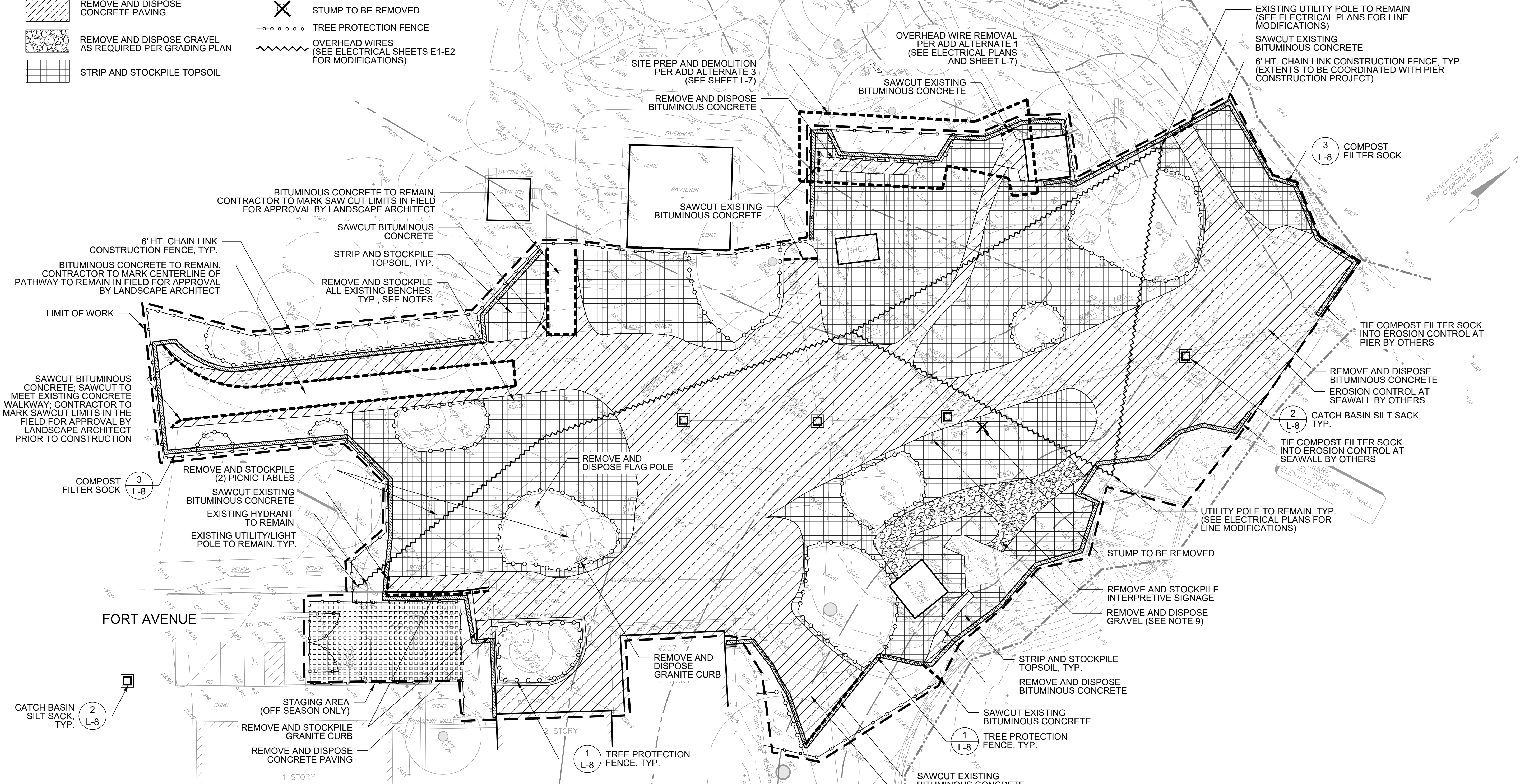
EXISTING CONDITIONS PLAN

Sheet No:

L-2

LEGEND

- LIMIT OF WORK
--- 25' NO-DISTURBANCE ZONE
--- 50' MITIGATION ZONE
--- RESOURCE AREA (COASTAL BANK, ROCKY INTERTIDAL SHORE, COASTAL BEACH)
--- 100' RESOURCE AREA BUFFER ZONE
- REMOVE AND DISPOSE BITUMINOUS CONCRETE PAVING
REMOVE AND DISPOSE CONCRETE PAVING
REMOVE AND DISPOSE GRAVEL AS REQUIRED PER GRADING PLAN
STRIP AND STOCKPILE TOPSOIL
- STAGING/STOCKPILE AREA
COMPOST FILTER SOCK
CATCH BASIN SILT SACK
REMOVE AND RESET GRANITE CURB
6' HT. CHAIN LINK CONSTRUCTION FENCE/GATE
STUMP TO BE REMOVED
TREE PROTECTION FENCE
OVERHEAD WIRES (SEE ELECTRICAL SHEETS E1-E2 FOR MODIFICATIONS)



SITE PREPARATION NOTES:

- SEE COVER SHEET L-1 FOR GENERAL NOTES.
- ALL REFUSE, DEBRIS, AND MISCELLANEOUS ITEMS TO BE REMOVED THAT ARE NOT TO BE STOCKPILED FOR LATER USE ON THE PROJECT OR DELIVERED TO THE OWNER SHALL BE LEGALLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS. ANY MUD ON THE PUBLIC WAYS ORIGINATING FROM THE JOB SITE SHALL BE CLEANED BY THE CONTRACTOR.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY.
- SEDIMENT SHALL BE REMOVED FROM BEHIND THE COMPOST FILTER SOCK WHEN IT REACHES HALF THE HEIGHT. SEDIMENT FROM THE CATCH BASIN SILT SACK SHALL BE REMOVED WHEN IT BECOMES 50% FILLED.
- EROSION CONTROL MATTING SHALL BE USED FOR EROSION CONTROL ON SLOPES 3:1 AND GREATER. SOIL ON SLOPES AND PROPOSED SEEDING SHALL BE PREPARED BEFORE INSTALLING MATTING.
- ALL AREAS SHALL BE PROTECTED FROM SEDIMENTATION DURING AND AFTER CONSTRUCTION, PARTICULARLY THE STORAGE OF EXCAVATED OR STOCKPILED MATERIAL. EACH STOCKPILE MUST BE ADEQUATELY RINGED WITH SEDIMENT CONTROL MATERIALS.
- SOIL STOCKPILE AREAS SHALL BE SURROUNDED BY A COMPOST FILTER SOCK OR OTHER SEDIMENT BARRIER.
- EXTENTS OF SAWCUT TAPERING AND REDUCTION OF EXISTING BITUMINOUS CONCRETE WALKWAYS TO BE REVIEWED AND APPROVED IN THE FIELD BY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- EXISTING MEMORIAL BENCH LOCATIONS TO BE DOCUMENTED BY THE CONTRACTOR PRIOR TO REMOVAL.

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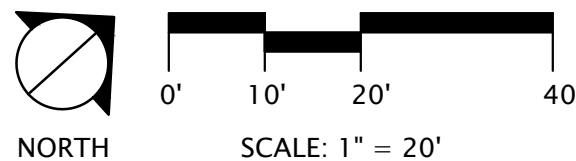
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Sheet Title:

SITE
PREPARATION
PLAN

Sheet No:

L-3



LEGEND

- LIMIT OF WORK

25' NO-DISTURBANCE ZONE

50' MITIGATION ZONE

RESOURCE AREA (COASTAL BANK, ROCKY INTERTIDAL SHORE, COASTAL BEACH)

100' RESOURCE AREA BUFFER ZONE

CONCRETE SIDEWALK

NEW BITUMINOUS PAVING

BIORETENTION BASIN

VERTICAL GRANITE CURB

PARK BENCH

PICNIC TABLE

TRASH AND RECYCLING RECEPTACLES
- R

RADIUS

L

LENGTH

D

ANGLE

TYP

TYPICAL

BP

POINT OF BEGINNING

EP

END POINT

CP

CONTROL POINT

PI

POINT OF INTERSECTION

PC

POINT OF CURVATURE

PT

POINT OF TANGENCY

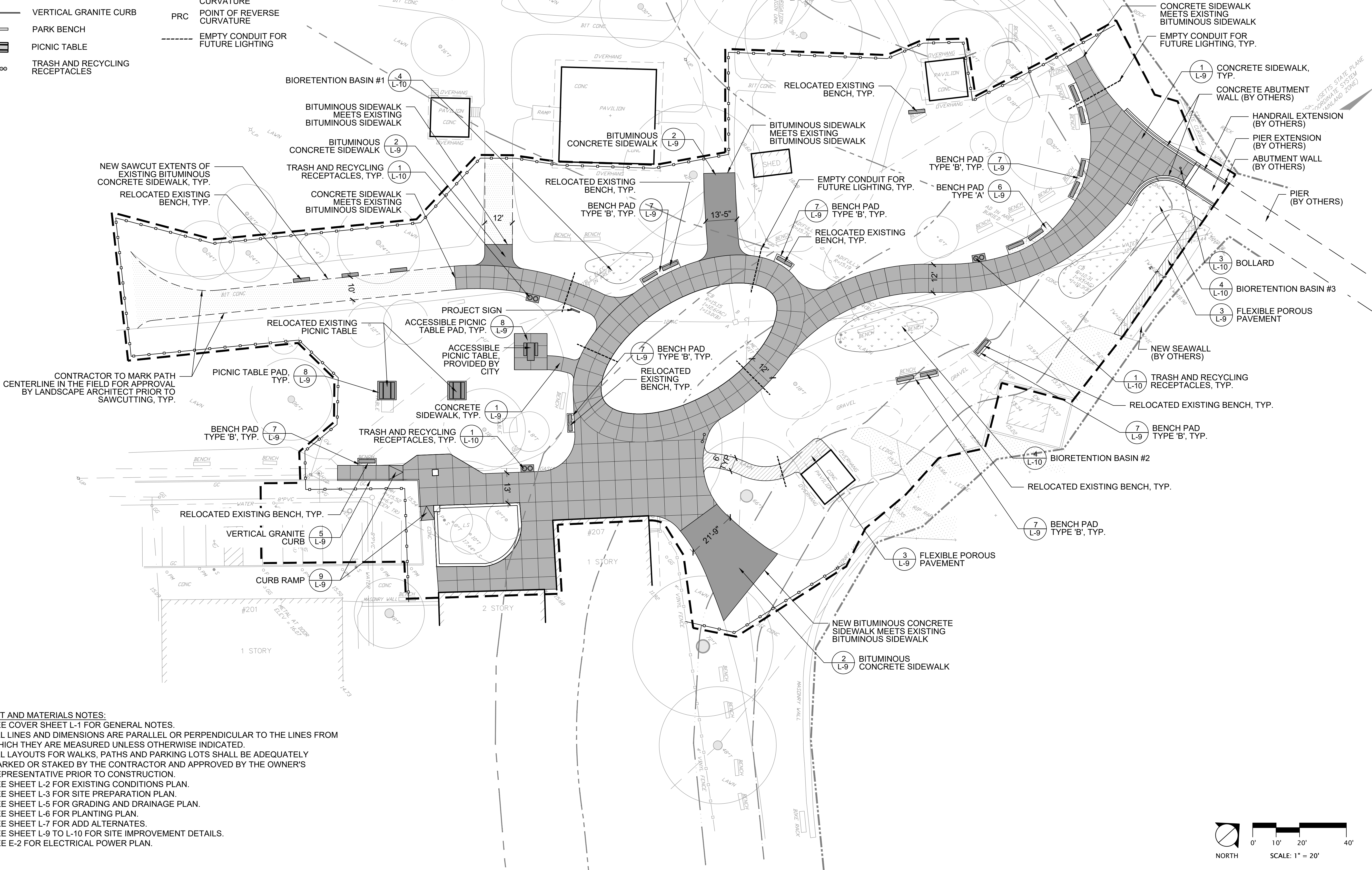
PCC

POINT OF COMPOUND CURVATURE

PRC

POINT OF REVERSE CURVATURE

EMPTY CONDUIT FOR FUTURE LIGHTING



LAYOUT AND MATERIALS NOTES:

1. SEE COVER SHEET L-1 FOR GENERAL NOTES.
2. ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
3. ALL LAYOUTS FOR WALKS, PATHS AND PARKING LOTS SHALL BE ADEQUATELY MARKED OR STAKED BY THE CONTRACTOR AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
4. SEE SHEET L-2 FOR EXISTING CONDITIONS PLAN.
5. SEE SHEET L-3 FOR SITE PREPARATION PLAN.
6. SEE SHEET L-5 FOR GRADING AND DRAINAGE PLAN.
7. SEE SHEET L-6 FOR PLANTING PLAN.
8. SEE SHEET L-7 FOR ADD ALTERNATES.
9. SEE SHEET L-9 TO L-10 FOR SITE IMPROVEMENT DETAILS.
10. SEE E-2 FOR ELECTRICAL POWER PLAN.

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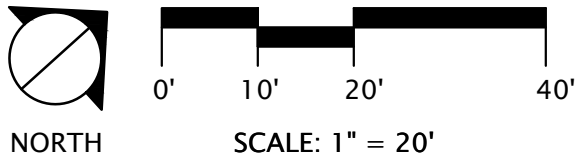
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LAYOUT AND MATERIALS PLAN

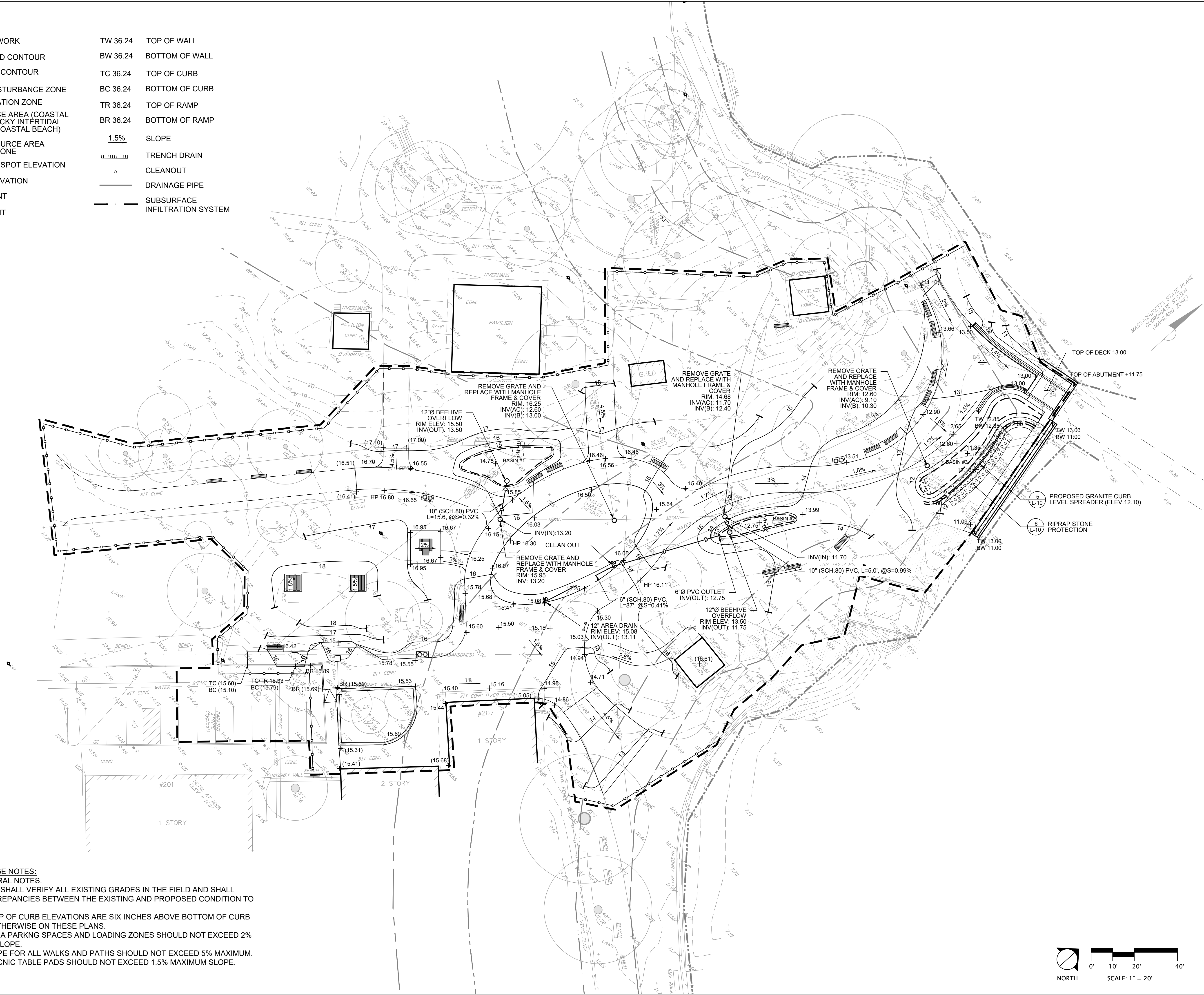
Sheet No:

L-4



LEGEND

	LIMIT OF WORK	TW 36.24	TOP OF WALL
	PROPOSED CONTOUR	BW 36.24	BOTTOM OF WALL
	EXISTING CONTOUR	TC 36.24	TOP OF CURB
	25' NO-DISTURBANCE ZONE	BC 36.24	BOTTOM OF CURB
	50' MITIGATION ZONE	TR 36.24	TOP OF RAMP
	RESOURCE AREA (COASTAL BANK, ROCKY INTERTIDAL SHORE, COASTAL BEACH)	BR 36.24	BOTTOM OF RAMP
	100' RESOURCE AREA BUFFER ZONE	1.5%	SLOPE
	EXISTING SPOT ELEVATION		TRENCH DRAIN
	SPOT ELEVATION		CLEANOUT
HP 36.24	HIGH POINT		DRAINAGE PIPE
LP 36.24	LOW POINT		SUBSURFACE INFILTRATION SYSTEM
INV. 32.00	INVERT		



GRADING AND DRAINAGE NOTES:

- SEE L-1 FOR GENERAL NOTES.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING GRADES IN THE FIELD AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE EXISTING AND PROPOSED CONDITION TO THE OWNER.
- ALL PROPOSED TOP OF CURB ELEVATIONS ARE SIX INCHES ABOVE BOTTOM OF CURB UNLESS SHOWN OTHERWISE ON THESE PLANS.
- ALL WALKS AND ADA PARKNG SPACES AND LOADING ZONES SHOULD NOT EXCEED 2% MAXIMUM CROSS SLOPE.
- THE RUNNING SLOPE FOR ALL WALKS AND PATHS SHOULD NOT EXCEED 5% MAXIMUM.
- ALL BENCH AND PICNIC TABLE PADS SHOULD NOT EXCEED 1.5% MAXIMUM SLOPE.

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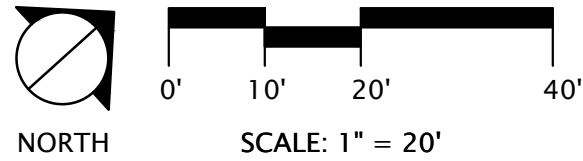
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Sheet Title:

GRADING AND
DRAINAGE PLAN

Sheet No:

L-5



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98 Washington St.
Salem, MA 01970

Stamp:



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SALEM, MA

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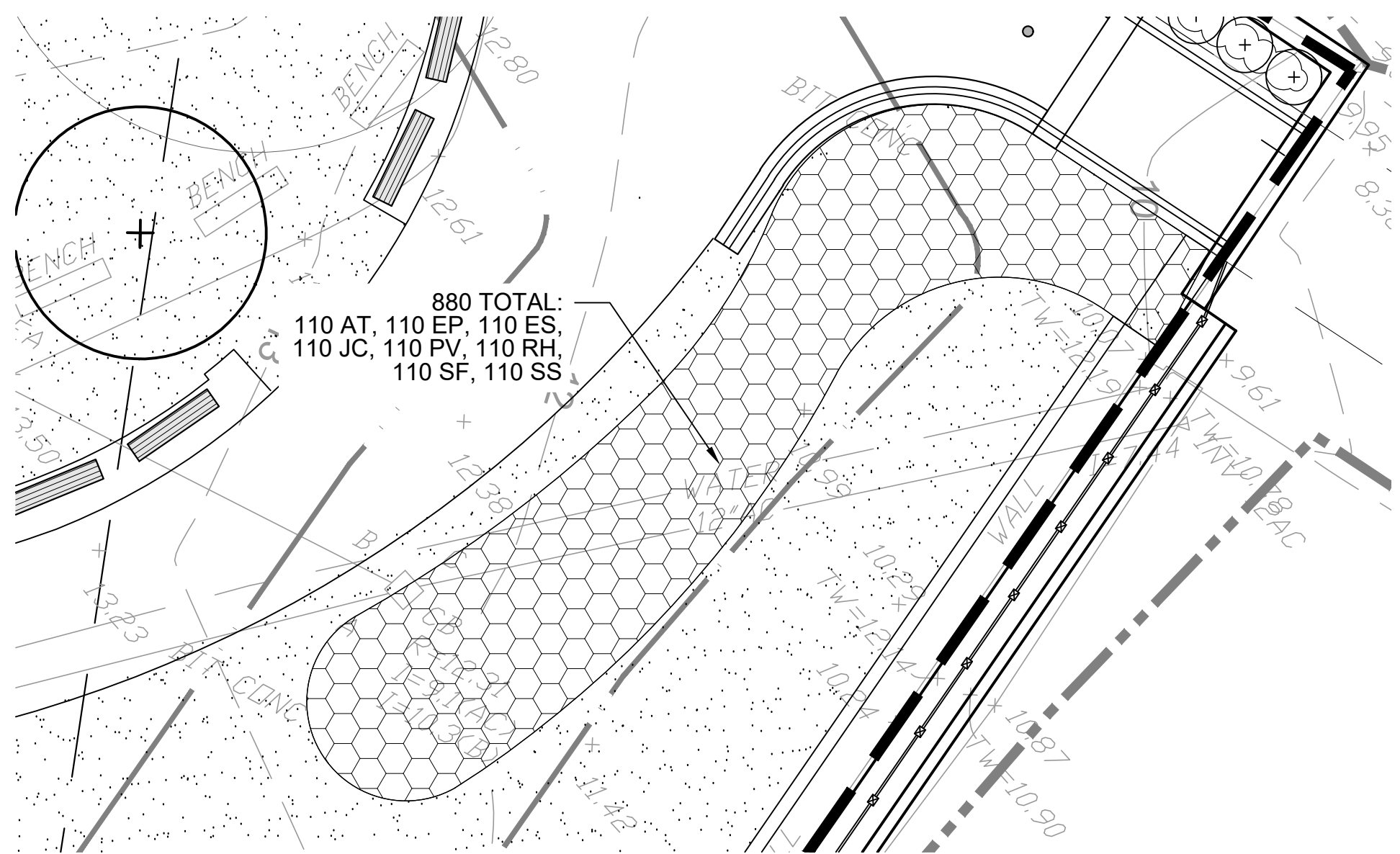
Number: Description: Date:

Sheet Title:

PLANTING PLAN

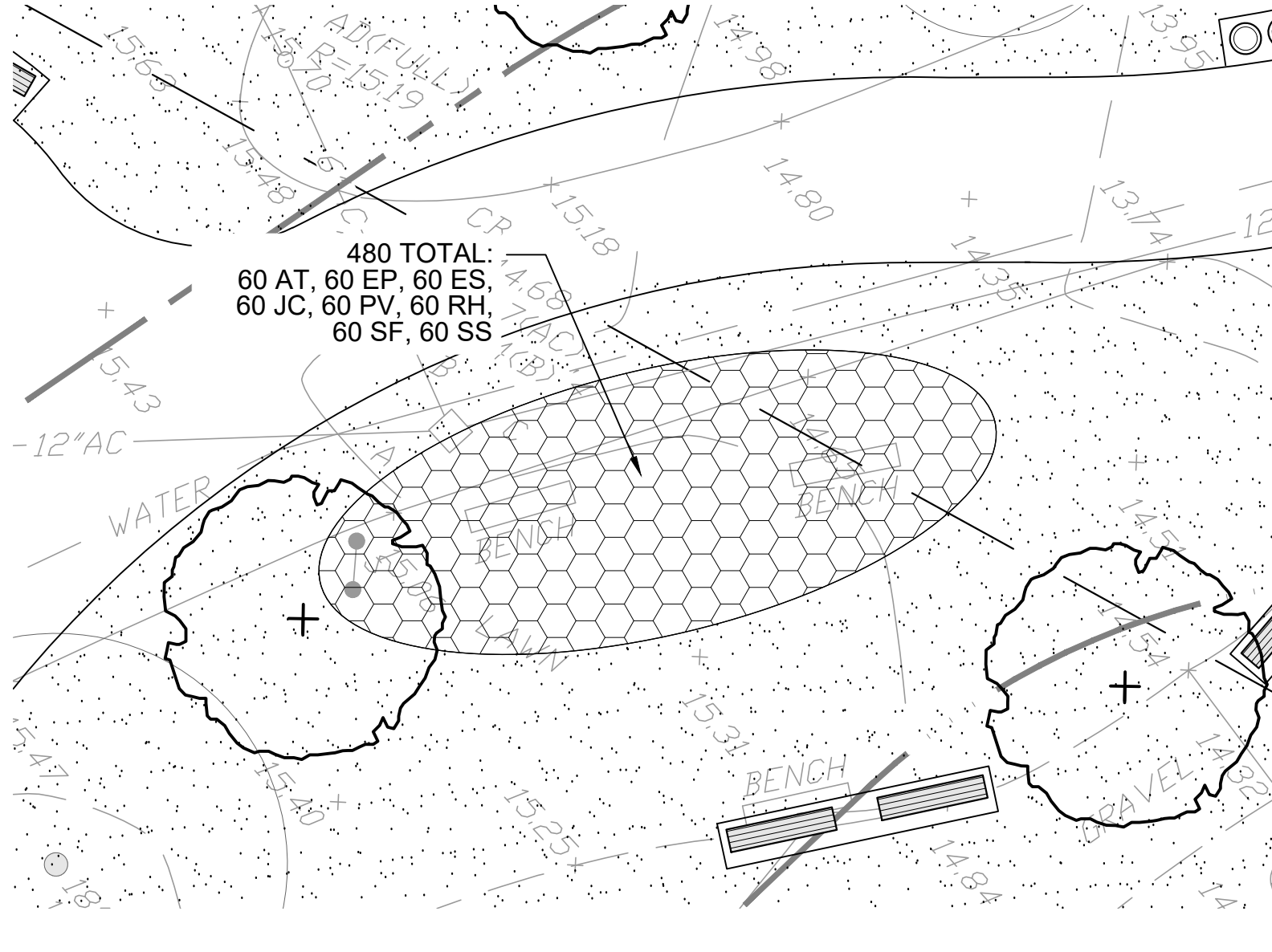
Sheet No:

L-6



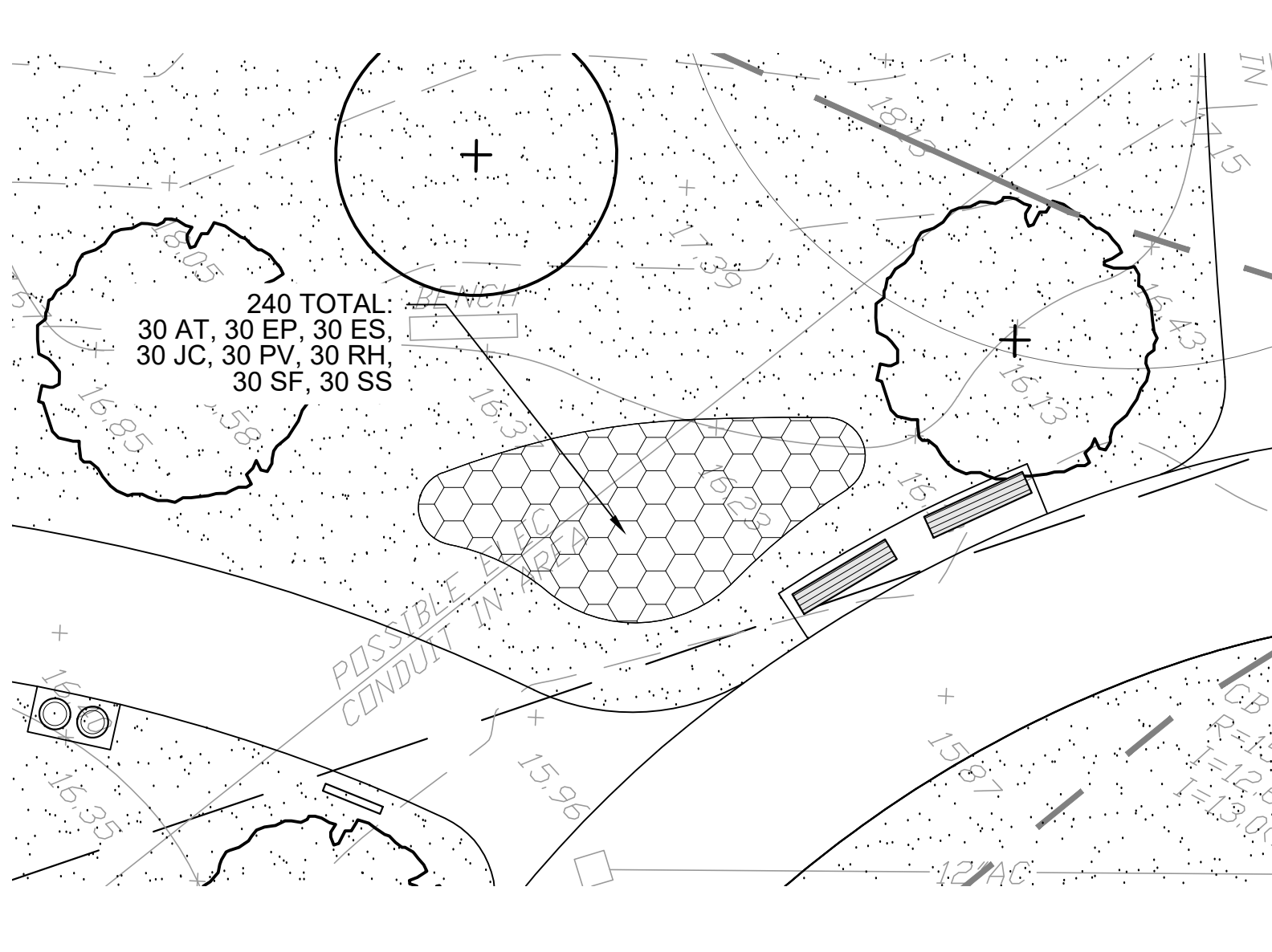
3 BIORETENTION BASIN 3 ENLARGEMENT

SCALE: 1"=10'-0"



2 BIORETENTION BASIN 2 ENLARGEMENT

SCALE: 1"=10'-0"



1 BIORETENTION BASIN 1 ENLARGEMENT

SCALE: 1"=10'-0"

LEGEND

- LIMIT OF WORK
- 25' NO-DISTURBANCE ZONE
- 50' MITIGATION ZONE
- RESOURCE AREA (COASTAL BANK, ROCKY INTERTIDAL SHORE, COASTAL BEACH)
- 100' RESOURCE AREA BUFFER ZONE
- LAWN SEED MIX
- HERBACEOUS PLUG PLANTING NATIVE COASTAL GRASSLAND
- HERBACEOUS PLUG PLANTING BIORETENTION BASIN
- EXISTING TREE TO REMAIN
- TREE PLANTING - BASE BID
- TREE PLANTING - ADD ALTERNATE
- SHRUB PLANTINGS

PLANTING NOTES:

- SEE COVER SHEET L-1 FOR GENERAL NOTES.
- ALL PLANTS SHALL BE STRAIGHT SPECIES UNLESS OTHERWISE NOTED ON THE PLANT SCHEDULE. SEE 8/L-11.
- IF DISCREPANCIES EXIST BETWEEN NUMBER OF PLANTS ON THE PLANTING PLAN AND NUMBER OF PLANTS IN THE PLANT SCHEDULE, THE PLANTING PLAN SHALL GOVERN.
- SEED ALL UPLAND DISTURBED AREAS (AT DIRECTION OF LANDSCAPE ARCHITECT) WITH APPROVED SEED MIX. CONTRACTOR SHALL PROVIDE COIR EROSION CONTROL MAT WHERE SLOPES EXCEED 3:1.
- ALL SEEDED AREAS NOT RECEIVING PLANT ESTABLISHMENT FENCE SHALL BE PROTECTED BY SEED ESTABLISHMENT FENCE. FENCE SHALL BE IN PLACE IMMEDIATELY FOLLOWING SEED APPLICATION UNTIL GERMINATION IS COMPLETE. SEE DETAIL 6/L-11 FOR SEED ESTABLISHMENT FENCE.
- STAKE LOCATION OF ALL PROPOSED PLANTING FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF PLANTING. PRUNE TREES IN ACCORDANCE WITH THE SPECIFICATION (024110).
- SEED ESTABLISHMENT FENCE SHALL BE RELOCATED TO COASTAL SEED AREAS FOLLOWING LAWN ESTABLISHMENT.

LEGEND

— — — — —	LIMIT OF WORK	R	RADIUS
— — — — —	25' NO-DISTURBANCE ZONE	L	LENGTH
— · — · — · —	50' MITIGATION ZONE	D	ANGLE
-----	RESOURCE AREA (COASTAL BANK, ROCKY INTERTIDAL SHORE, COASTAL BEACH)	TYP	TYPICAL
-----	100' RESOURCE AREA BUFFER ZONE	BP	POINT OF BEGINNING
▨	FLEXIBLE POROUS PAVEMENT	EP	END POINT
■	BITUMINOUS CONCRETE PAVING	CP	CONTROL POINT
▤	BIORETENTION BASIN	PI	POINT OF INTERSECTION
—	VERTICAL GRANITE CURB	PC	POINT OF CURVATURE
□	PARK BENCH	PT	POINT OF TANGENCY
▩	PICNIC TABLE	PCC	POINT OF COMPOUND CURVATURE
∞	TRASH AND RECYCLING RECEPTACLES	PRC	POINT OF REVERSE CURVATURE
		-----	EMPTY CONDUIT FOR FUTURE LIGHTING

- NOTES:
- SEE COVER SHEET L-1 FOR GENERAL NOTES.
 - ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
 - ALL LAYOUTS FOR WALKS, PATHS AND PARKING LOTS SHALL BE ADEQUATELY STAKED BY THE CONTRACTOR AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
 - SIDEWALK SCORING SHALL BE 5' O.C. TYP.
 - SEE SHEET L-2 FOR EXISTING CONDITIONS PLAN.
 - SEE SHEET L-3 FOR SITE PREPARATION PLAN.
 - SEE SHEET L-6 FOR PLANTING PLAN.
 - SEE SHEETS L-9 AND L-10 FOR DETAILS.
 - SEE E-2 FOR ELECTRICAL POWER PLAN.

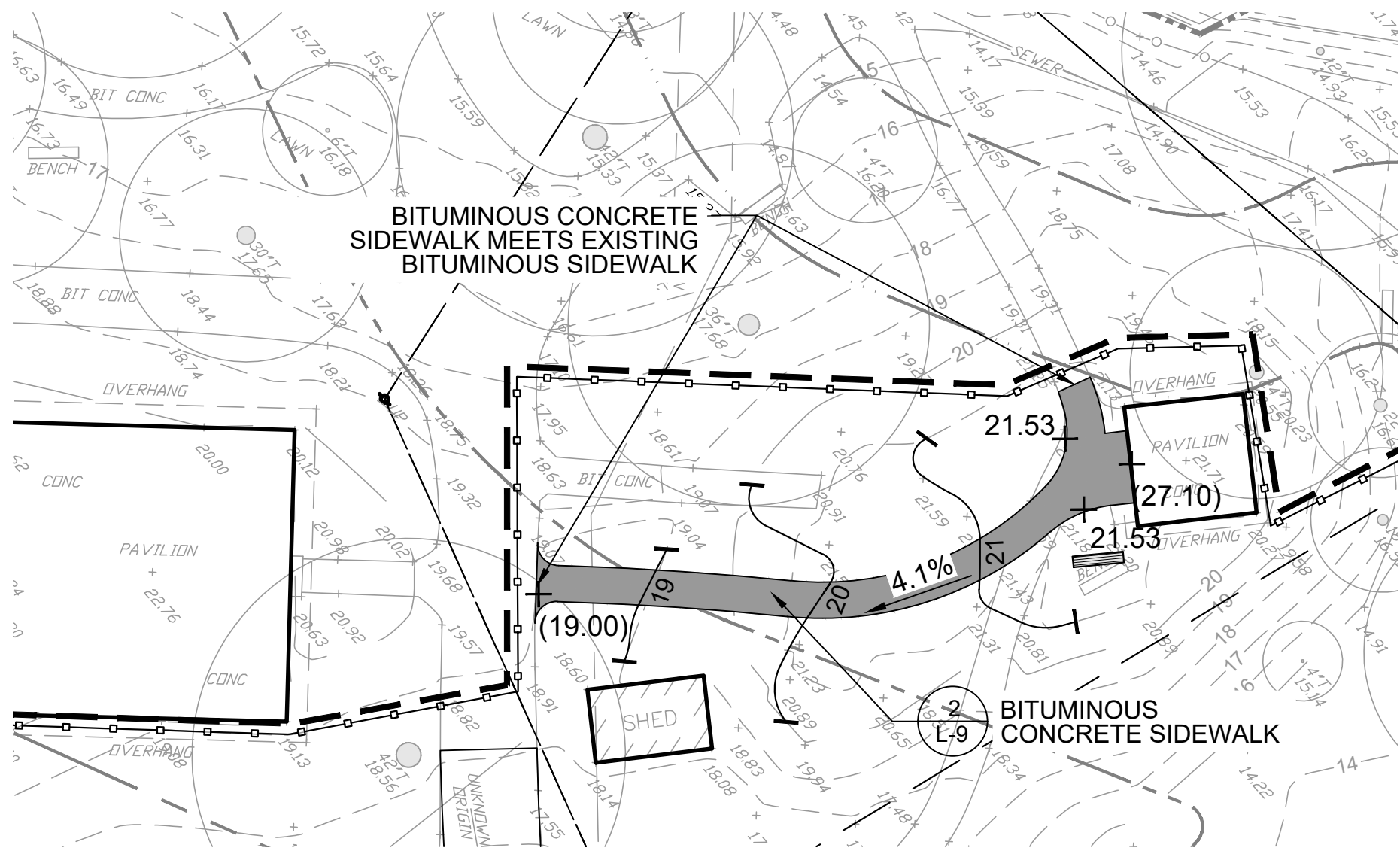
ADD ALTERNATE SCHEDULE

PRIORITY NUMBER	BASE BID	ADD ALTERNATE	REFERENCE PLAN(S)
1	OVERHEAD WIRING TO REMAIN AS IS	OVERHEAD WIRING TO BE BURIED	SEE SHEETS L-3, E-1, E-2
2	POROUS PATH TO PAVILION	POROUS PATH TO PAVILION + LOOP EXTENSION AND ADDITIONAL STONE DUST BENCH PADS	SEE PLAN 1/L-7
3	NO IMPROVEMENTS TO EXISTING PATH TO PAVILION	BITUMINOUS CONCRETE PATH TO PAVILION; REMOVE AND DISPOSE OF EXISTING PATH	SEE PLAN 2/L-7
4	STONEDUST BENCH PADS	CONCRETE BENCH PADS	SEE DETAIL 4/L-9
5	(14) TOTAL TREES	(22) TOTAL TREES	SEE SHEETS L-6/L-7

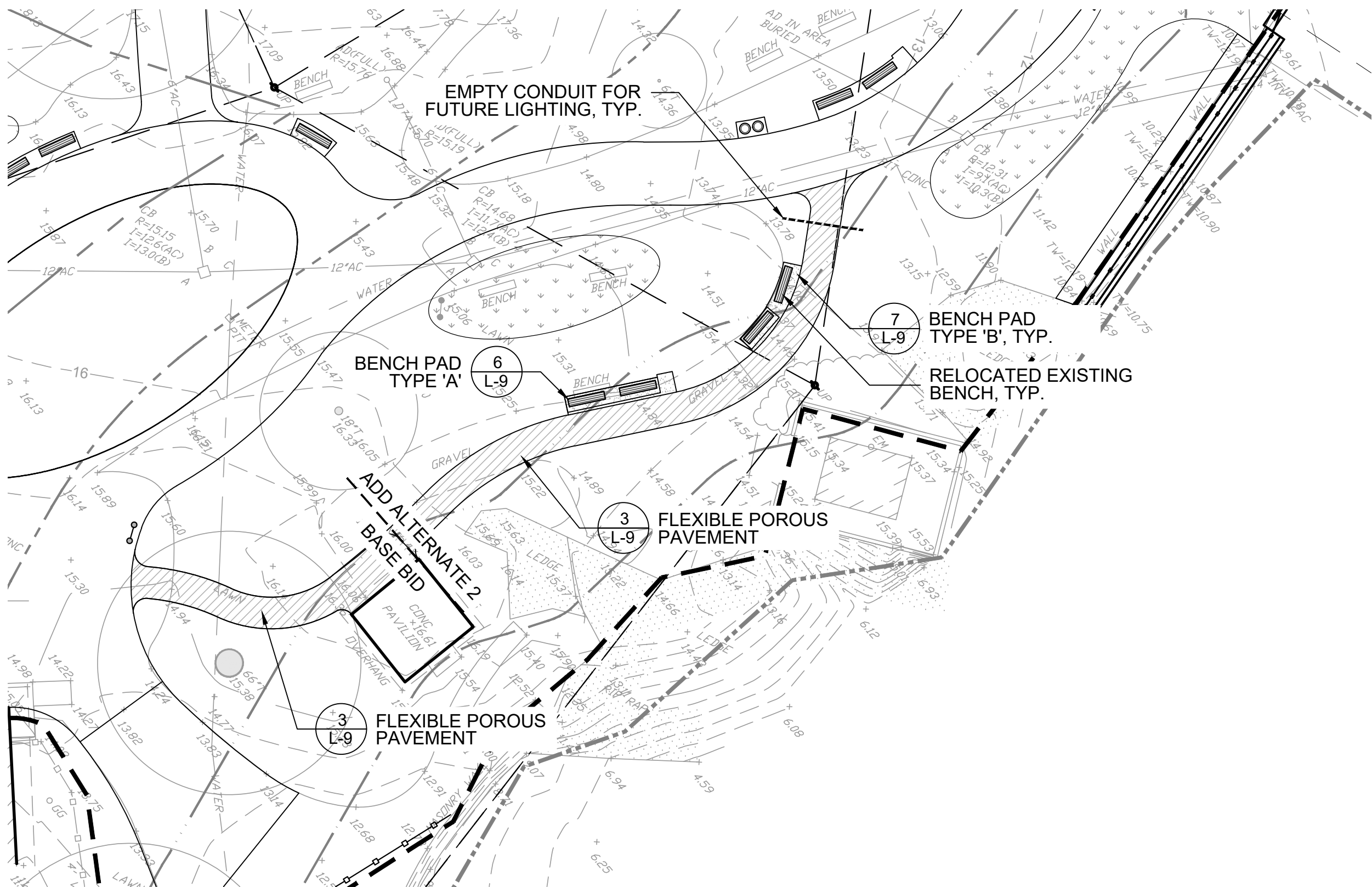
PLANT SCHEDULE ADDITIONS

DECIDUOUS SHADE TREES					
QTY	SYM	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
1	NS	Nyssa sylvatica	Black Gum	2" CAL.	B&B
1	PO	Platanus occidentalis	Sycamore	2" CAL.	B&B
1	QA	Quercus alba	White Oak	2" CAL.	B&B
1	QM	Quercus montana	Chestnut Oak	2" CAL.	B&B
1	QR	Quercus rubra	Red Oak	2" CAL.	B&B
1	QV	Quercus velutina	Black Oak	2" CAL.	B&B
1	SA	Sassafras albidum	Sassafras	8' HT.	CONT.
1	TA	Tilia americana	American Basswood	2" CAL.	B&B

3 ADD ALTERNATE 5 - PLANT SCHEDULE ADDITIONS
NOT TO SCALE



2 ADD ALTERNATE 3 - BITUMINOUS CONCRETE PATH @ PAVILION
SCALE: 1" = 20'-0"



1 ADD ALTERNATE 2 - EXTENDED POROUS PAVE PATH
SCALE: 1" = 20'-0"



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ADD ALTERNATE
ENLARGEMENT
PLANS AND
SCHEDULES

Sheet No:

L-7

Client/Owner:

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98 Washington St.
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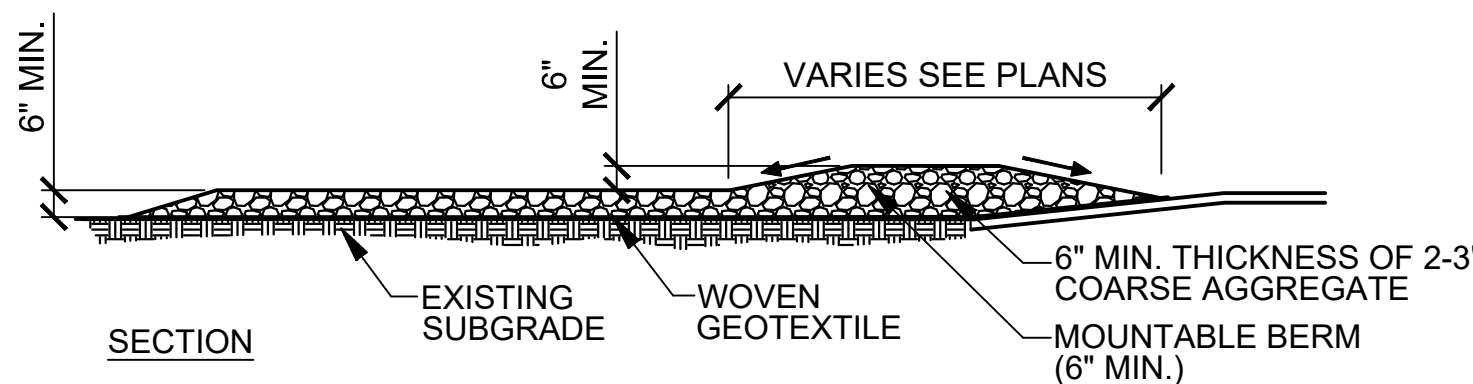
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SITE
PREPARATION
DETAILS

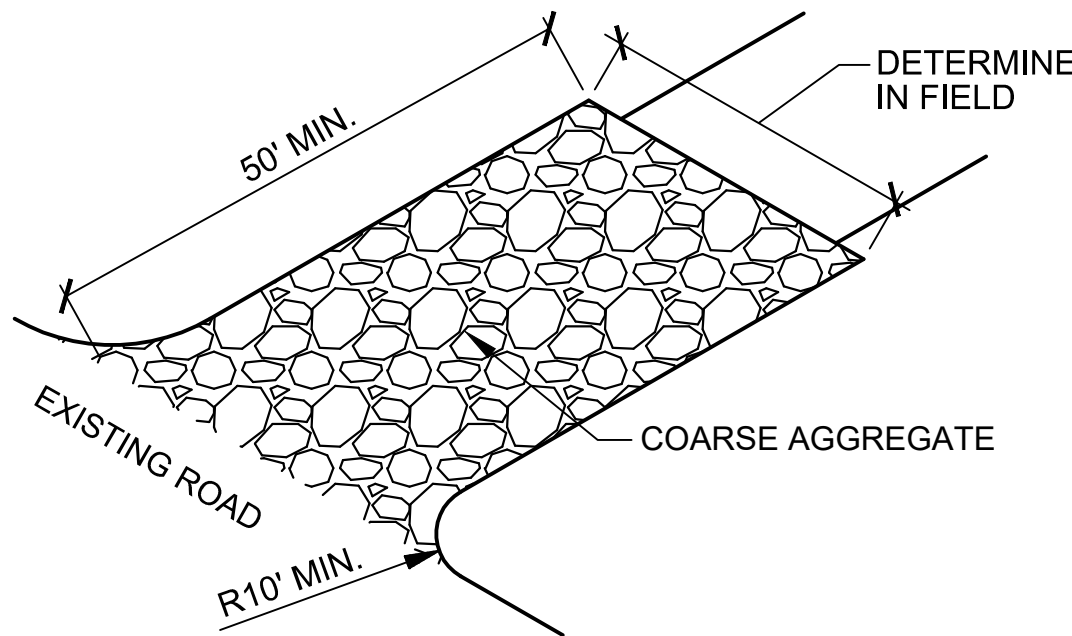
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L-8



NOTES:

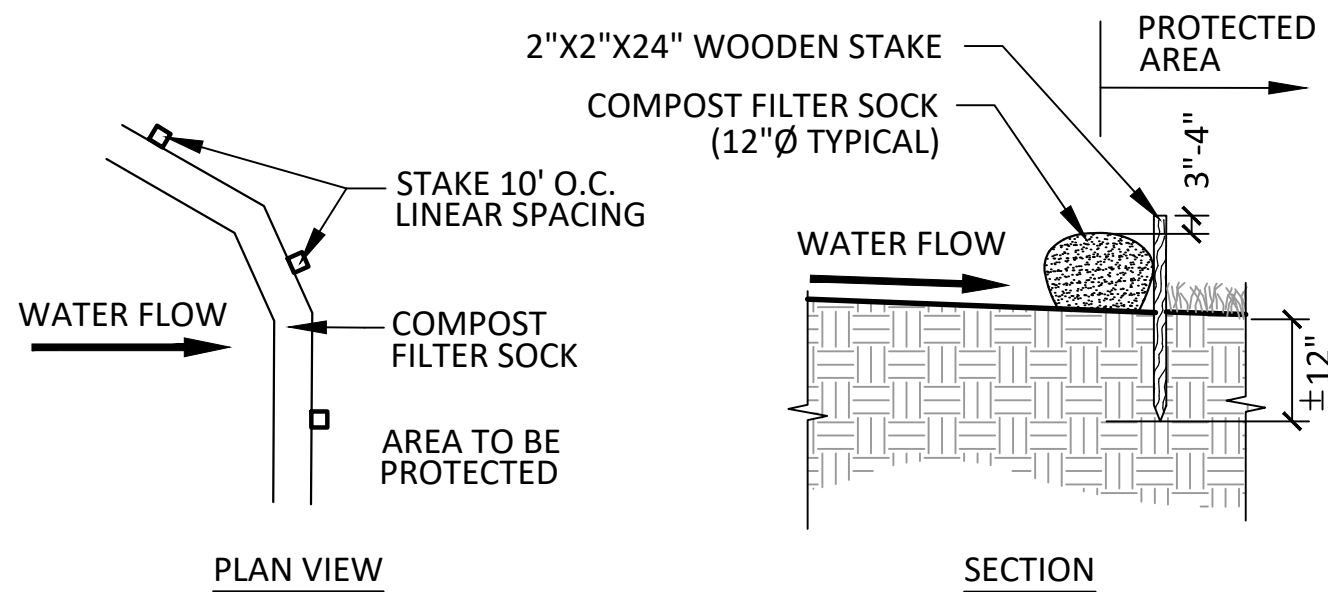
1. INSTALL GRAVEL CONSTRUCTION PAD AT INGRESS/EGRESS. MINIMUM WIDTH TO BE EQUAL TO WIDTH OF VEHICULAR ACCESS. ACTUAL WIDTH AND LENGTH TO BE DETERMINED IN FIELD BY OWNER REPRESENTATIVE PRIOR TO CONSTRUCTION.
2. PLACE GEOTEXTILE ON EXISTING GROUND PRIOR TO PLACING THE 6" STONE PAD.
3. PROVIDE PERIODIC TOP DRESSING OF COARSE AGGREGATE AS NEEDED.
4. REMOVE TRAPPED SEDIMENT AFTER EACH STORM. CLEAN OR REPLACE FILTER MATERIAL AS NEEDED.
5. REMOVE ALL MATERIALS OFF SITE OR AS PER SPECS UPON COMPLETION OF CONSTRUCTION.



4

TEMPORARY CONSTRUCTION ENTRANCE

SCALE: NTS

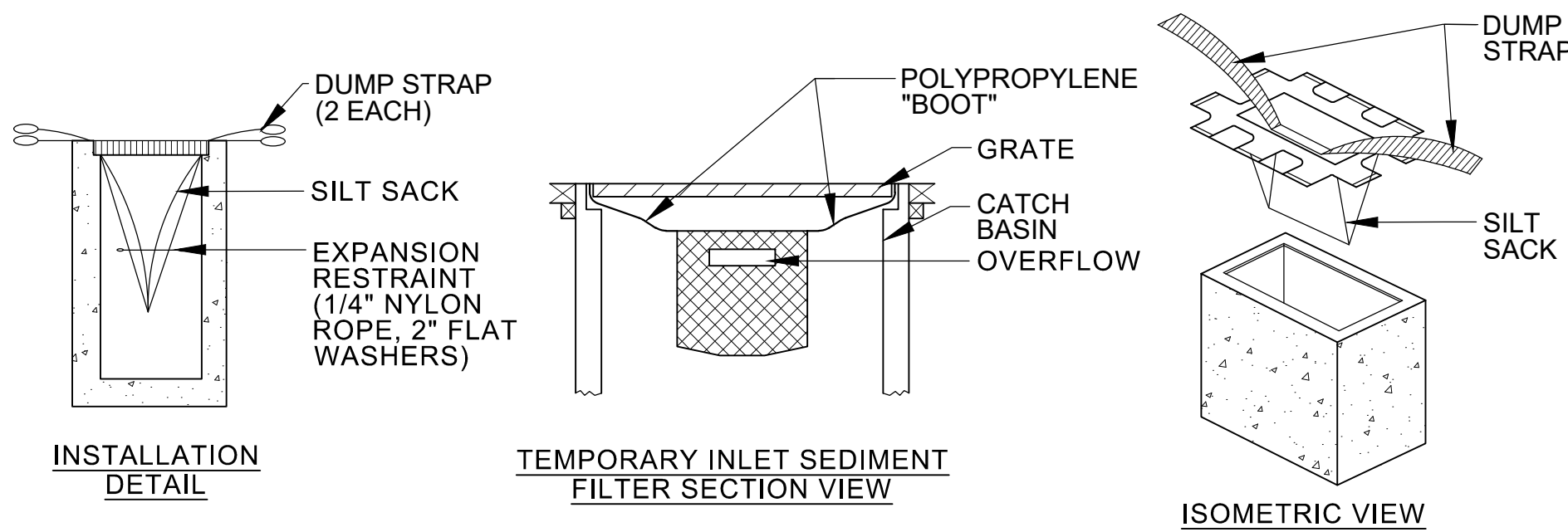


NOTE:
CONTRACTOR TO SLICE MESH FABRIC TUBING OF COMPOST FILTER SOCK, REMOVE ALL FABRIC OFF SITE AND RAKE OUT MULCH AT COMPLETION OF PROJECT.

3

COMPOST FILTER SOCK

SCALE: NTS

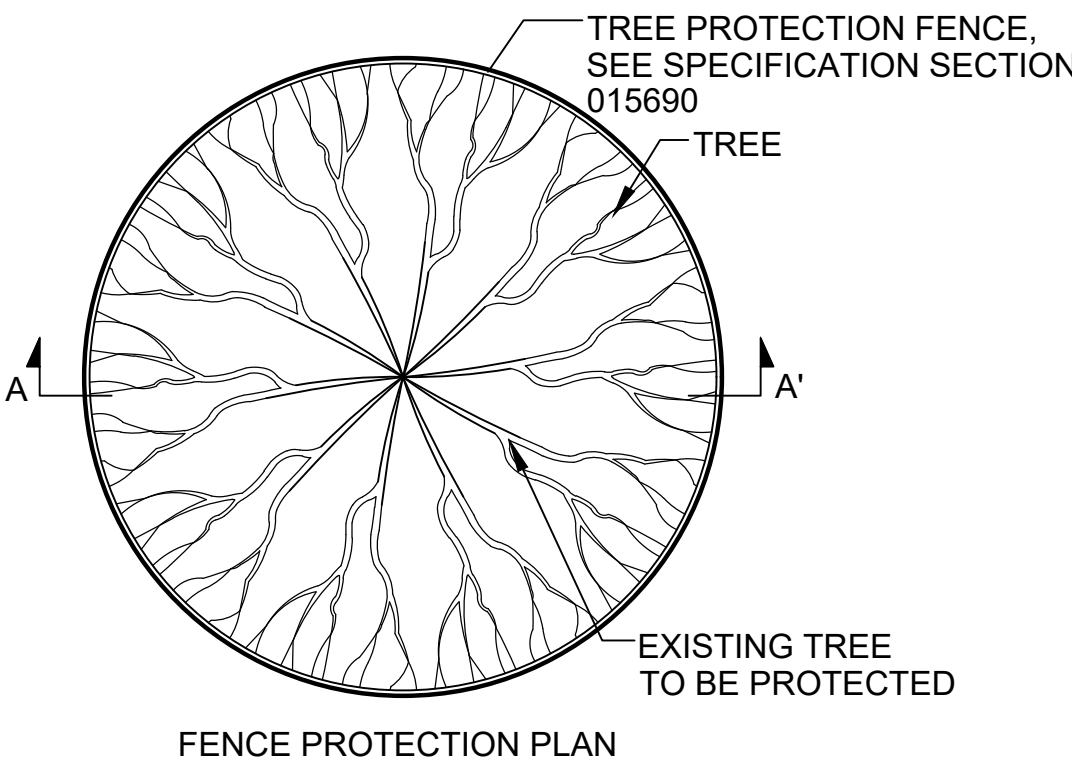
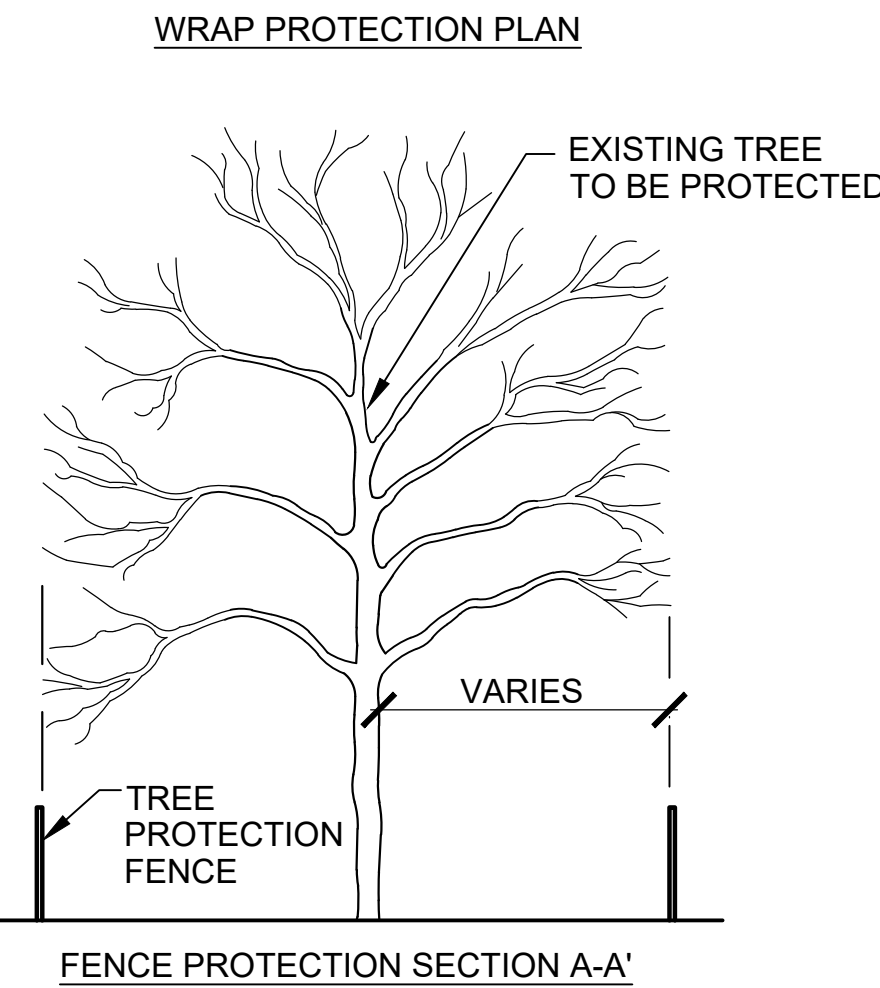
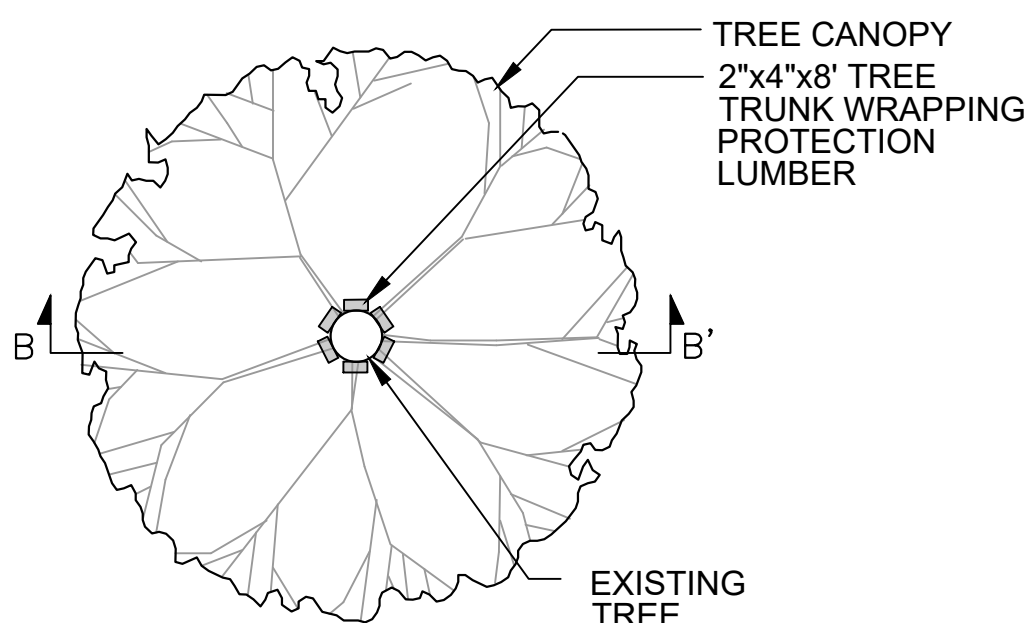
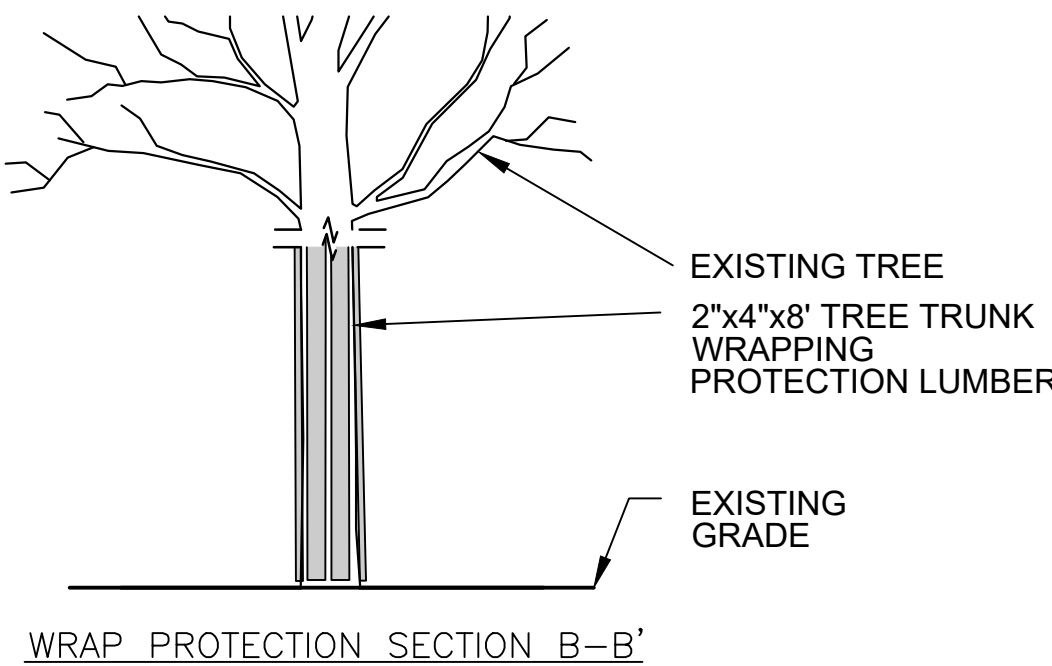


NOTE:
MAINTAIN FILTER IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

2

CATCH BASIN SILT SACK

SCALE: NTS

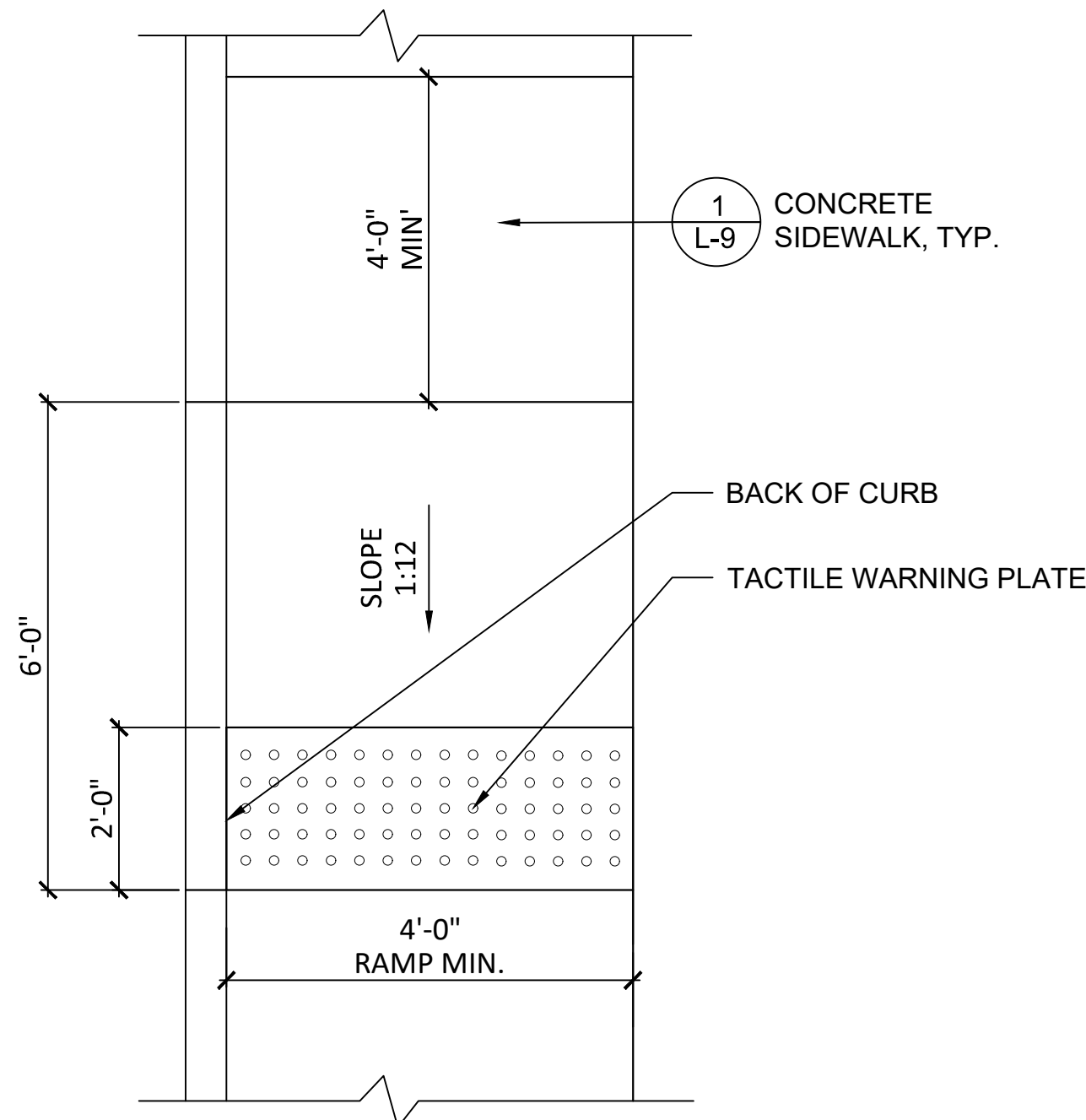


NOTE:
1. ALL TREE PROTECTION SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES AND MAINTAINED IN GOOD CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.

1

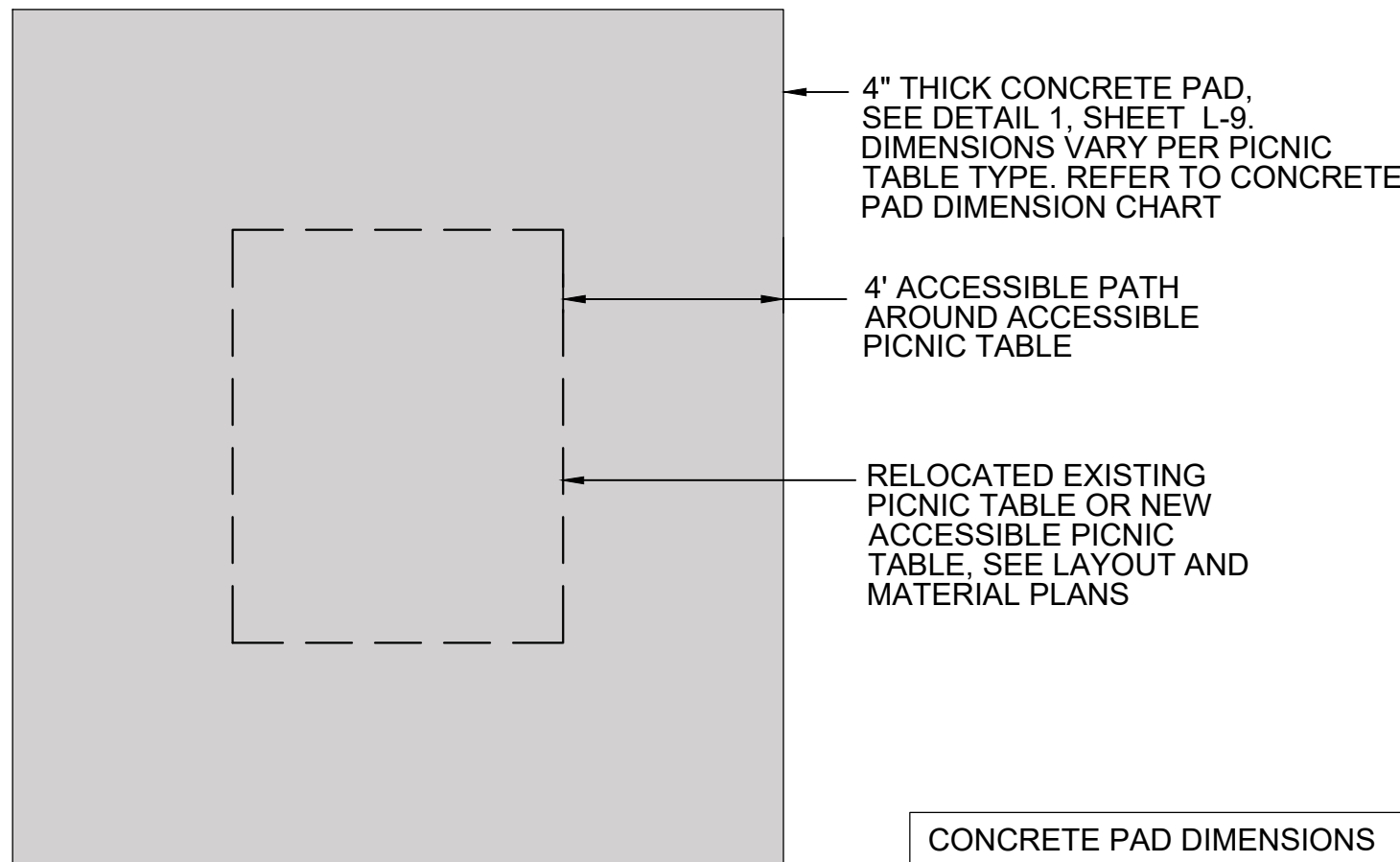
TREE PROTECTION FENCE

SCALE: NTS



9 CURB RAMP

SCALE: NTS

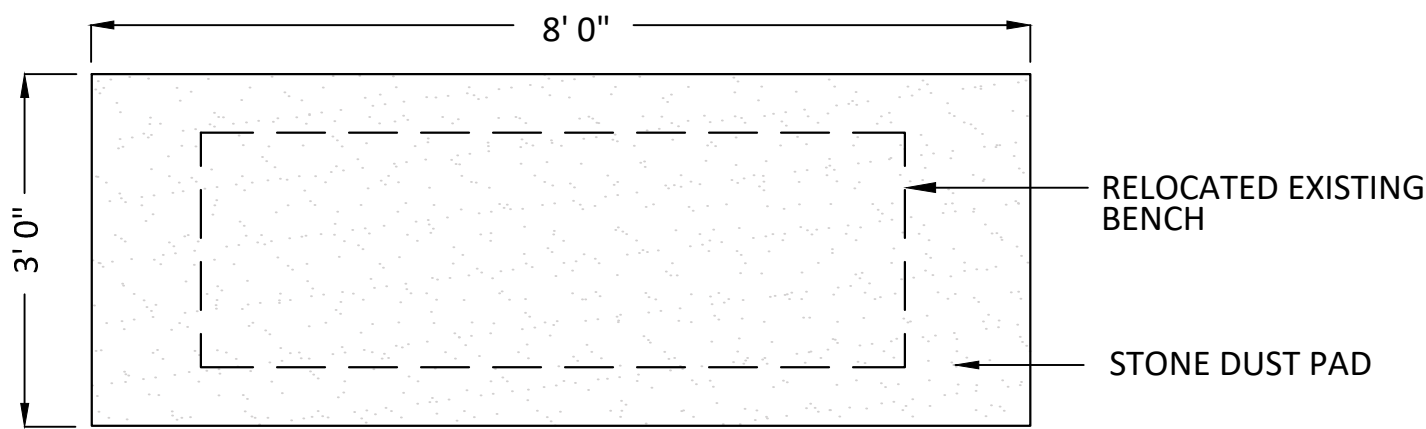


NOTES:
1. REFER TO DETAIL 1/L-9 FOR CONCRETE SIDEWALK SECTION
2. ***VERIFY FINAL PAD DIMENSIONS WITH LANDSCAPE ARCHITECT BASED ON EXISTING PICNIC TABLE SIZE(S) PRIOR TO CONSTRUCTION.

CONCRETE PAD DIMENSIONS	
EXISTING PICNIC TABLE	ACCESSIBLE PICNIC TABLE
***7'-0" W x 7'-0" L x 4" Depth	14'-0" W x 15'-6" L x 4" Depth

8 PICNIC TABLE PAD

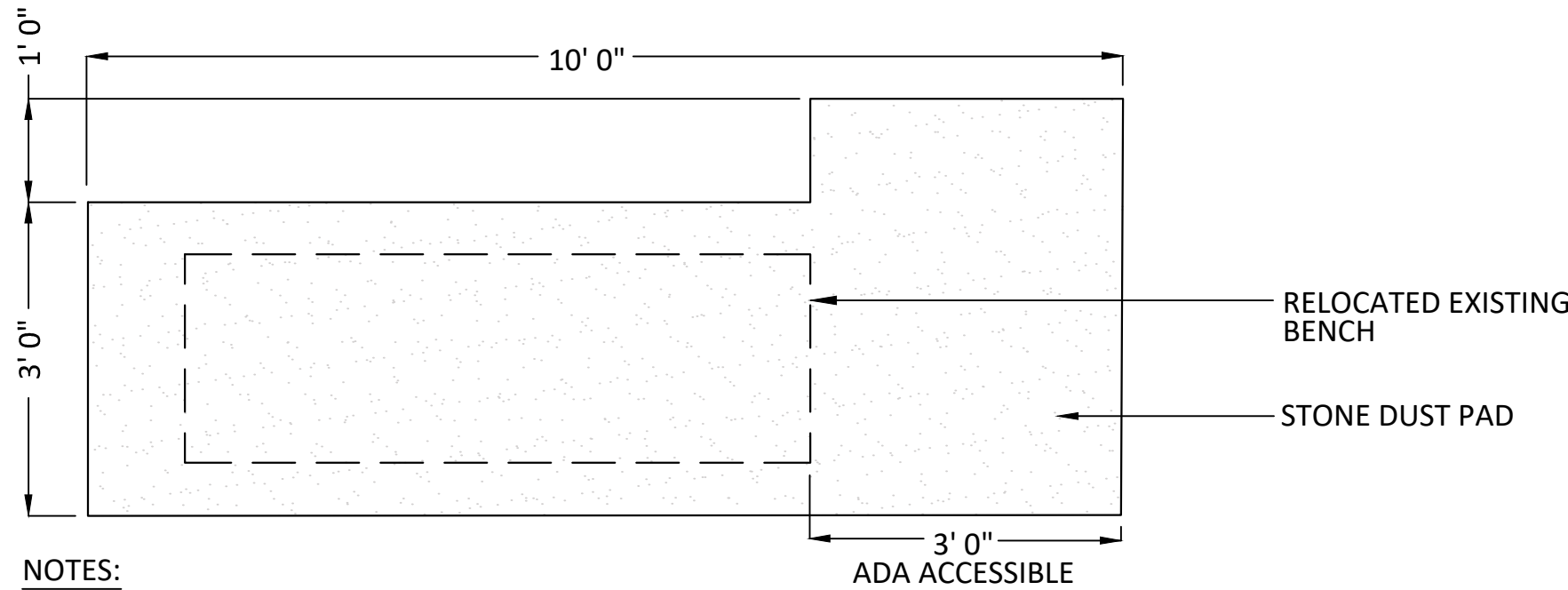
SCALE: NTS



NOTES:
1. REFER TO DETAIL 4/L-9 FOR STONEDUST PAVEMENT.
2. ADD ALTERNATE #4 - BENCH PADS TO BE CONCRETE. REFER TO DETAIL 1/L-9 FOR CONCRETE SIDEWALK. SEE SHEET L-7 FOR ADD ALTERNATE PLANS AND SCHEDULE.

7 BENCH PAD TYPE 'B'

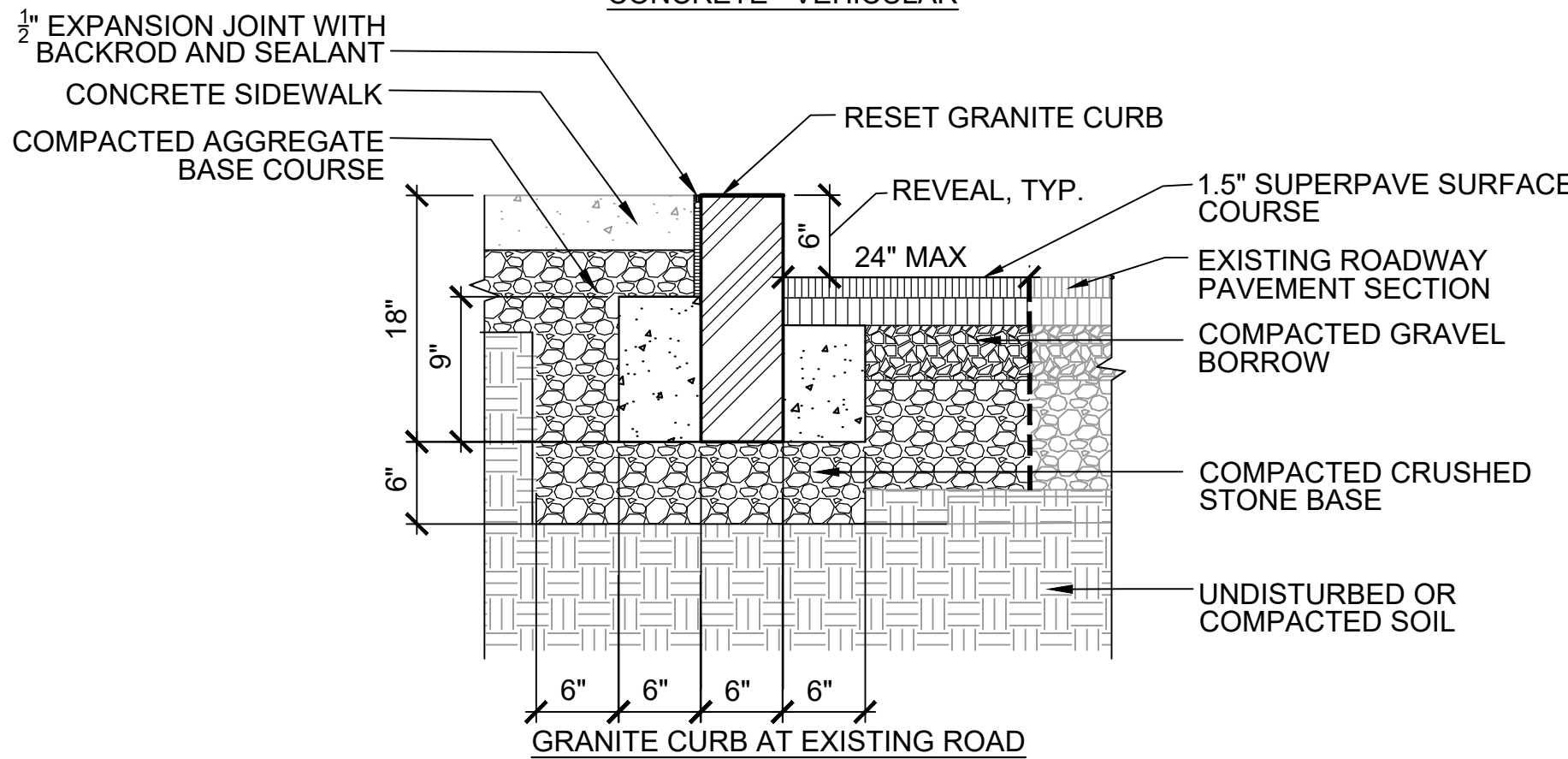
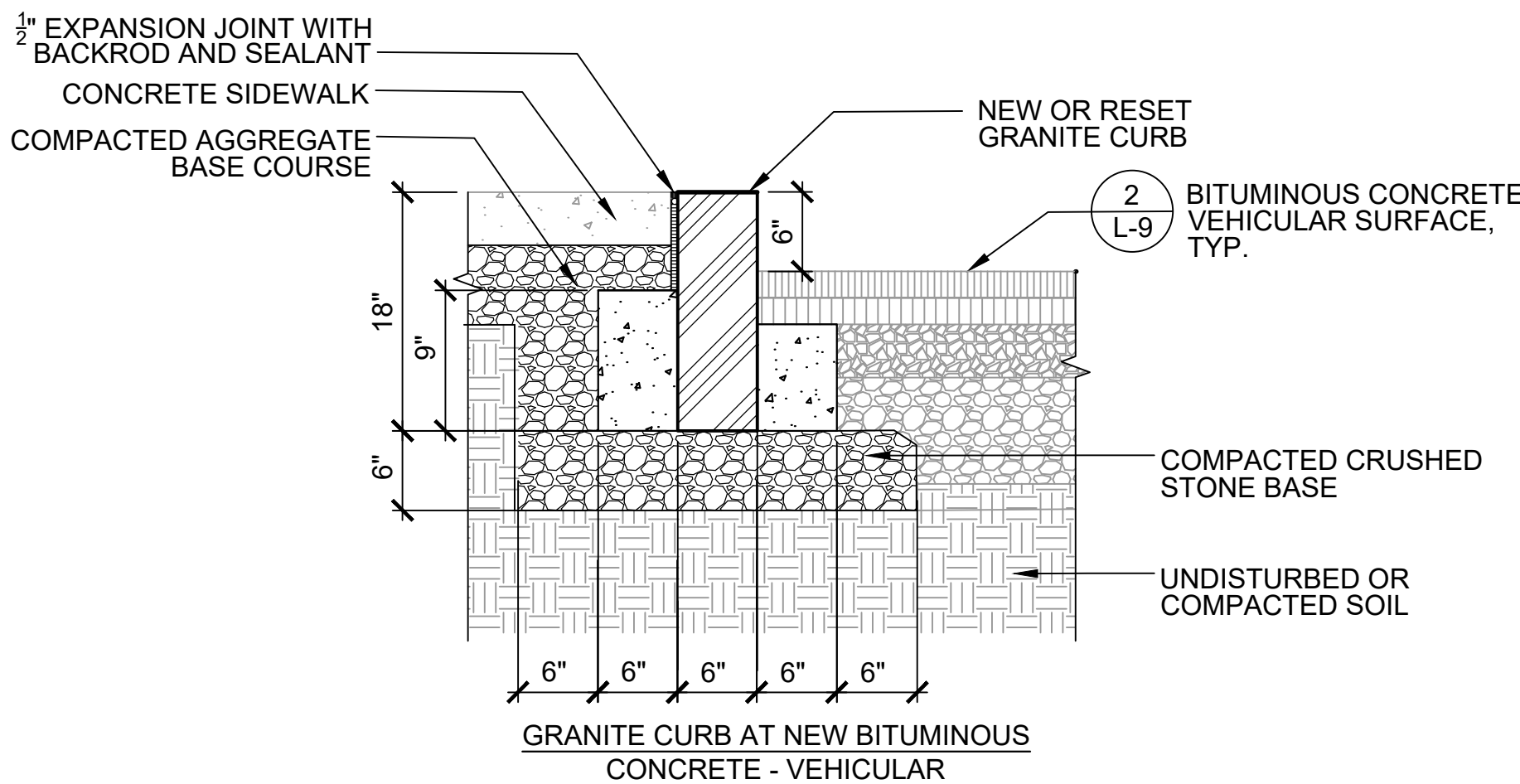
SCALE: NTS



NOTES:
1. REFER TO DETAIL 4/L-9 FOR STONEDUST PAVEMENT.
2. ADD ALTERNATE #4 - BENCH PADS TO BE CONCRETE. REFER TO DETAIL 1/L-9 FOR CONCRETE SIDEWALK. SEE SHEET L-7 FOR ADD ALTERNATE PLANS AND SCHEDULE.

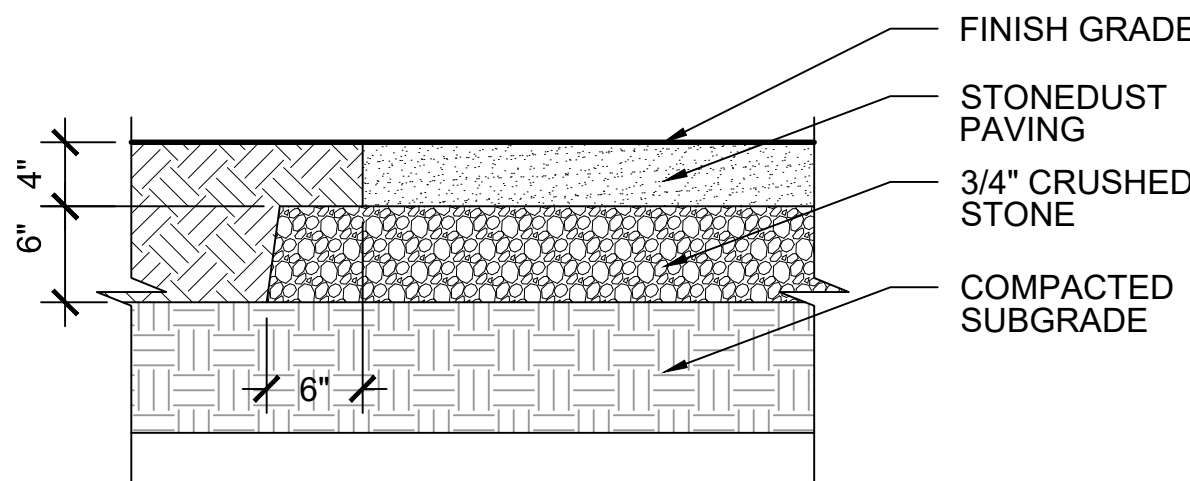
6 BENCH PAD TYPE 'A'

SCALE: NTS



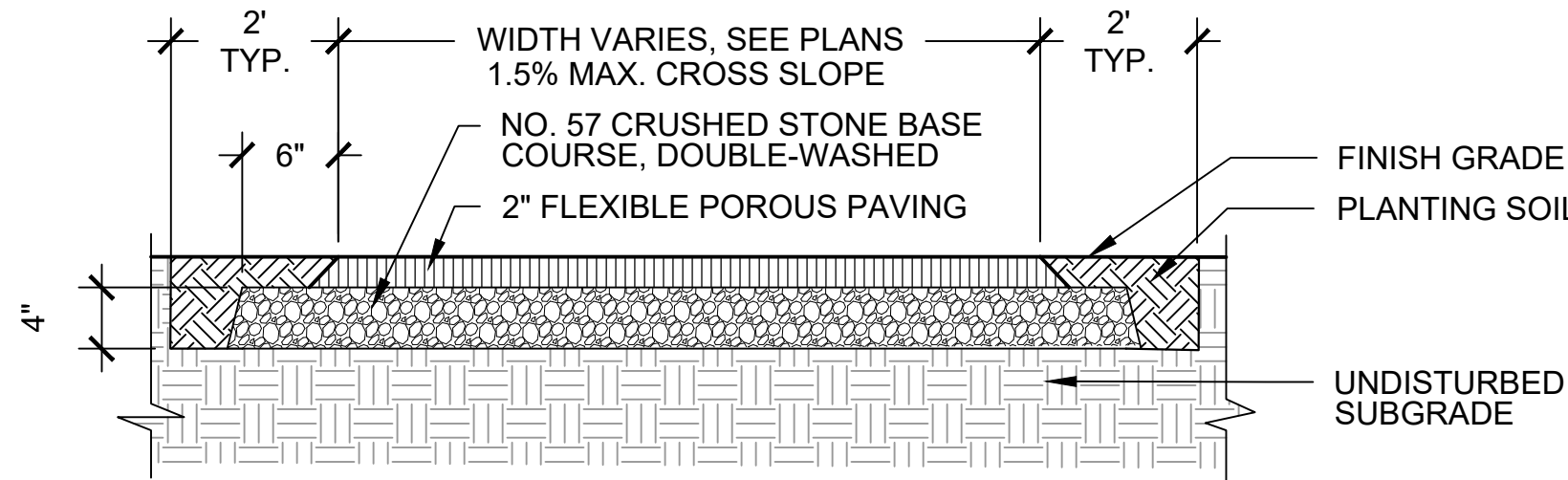
5 VERTICAL GRANITE CURB

SCALE: NTS



4 STONEDUST PAVEMENT

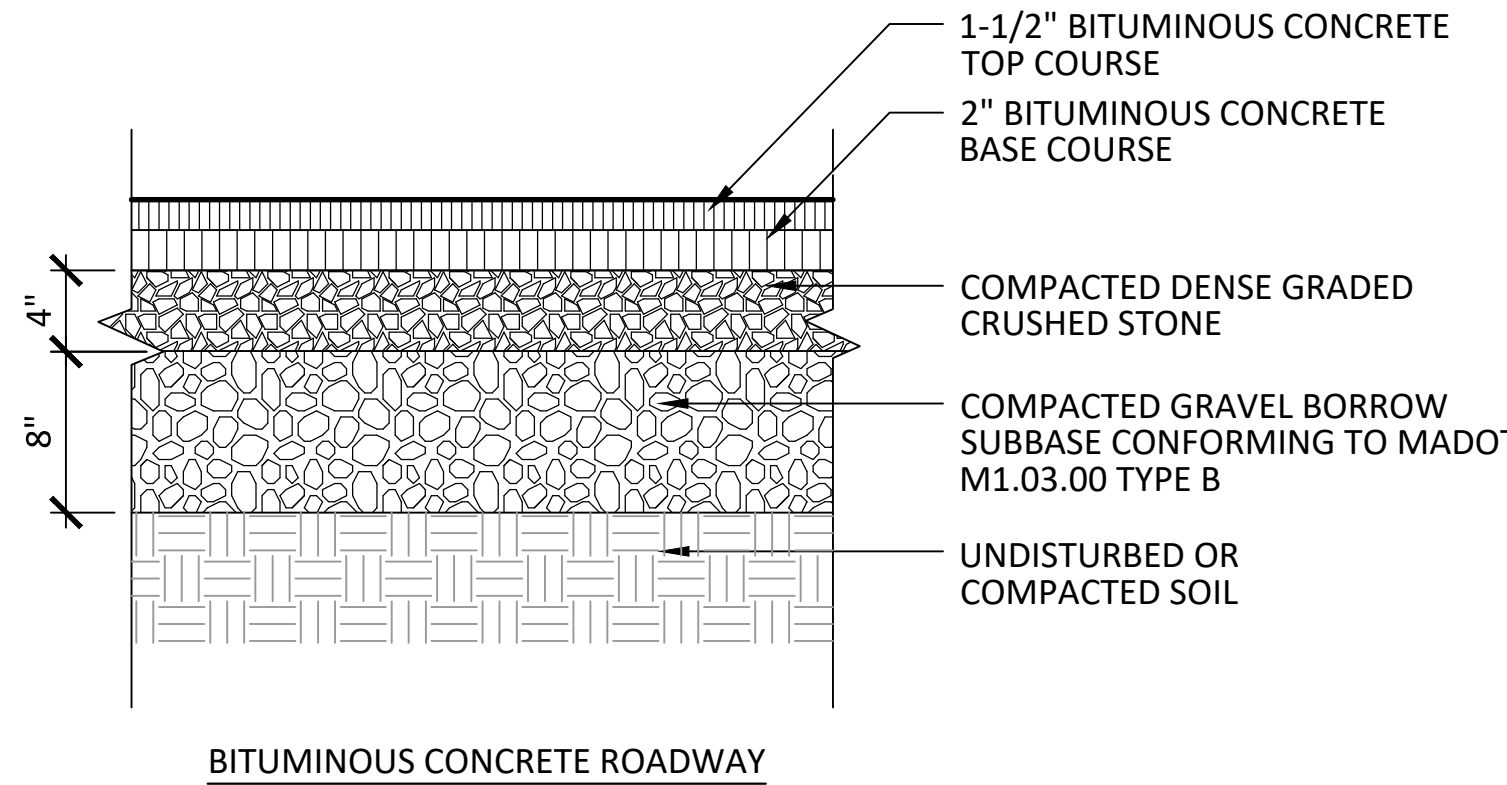
SCALE: NTS



NOTES:
1. SEE SPECIFICATION FOR FLEXIBLE POROUS PAVEMENT COLOR.
2. SEEDED SHOULDER SHALL BE PLANTING SOIL AND SEED MIX PER PLAN, WIDTH VARIES FROM 6" TO 24", BOTH SIDES.

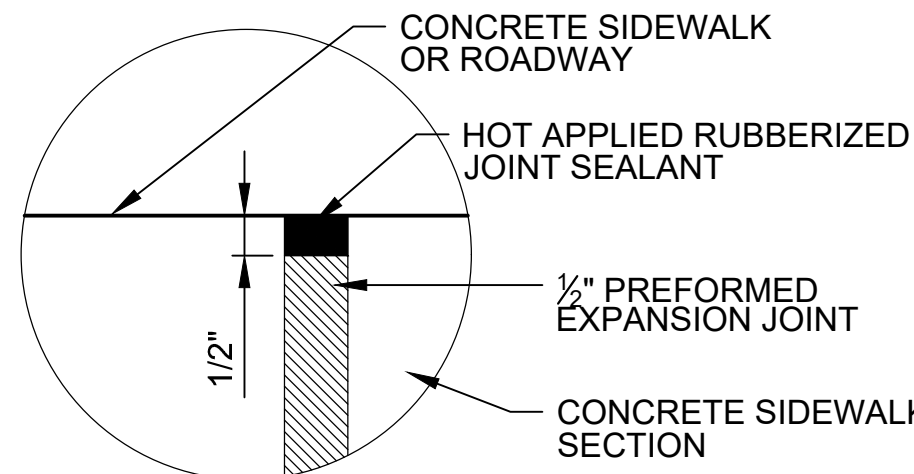
3 FLEXIBLE POROUS PAVEMENT

SCALE: NTS

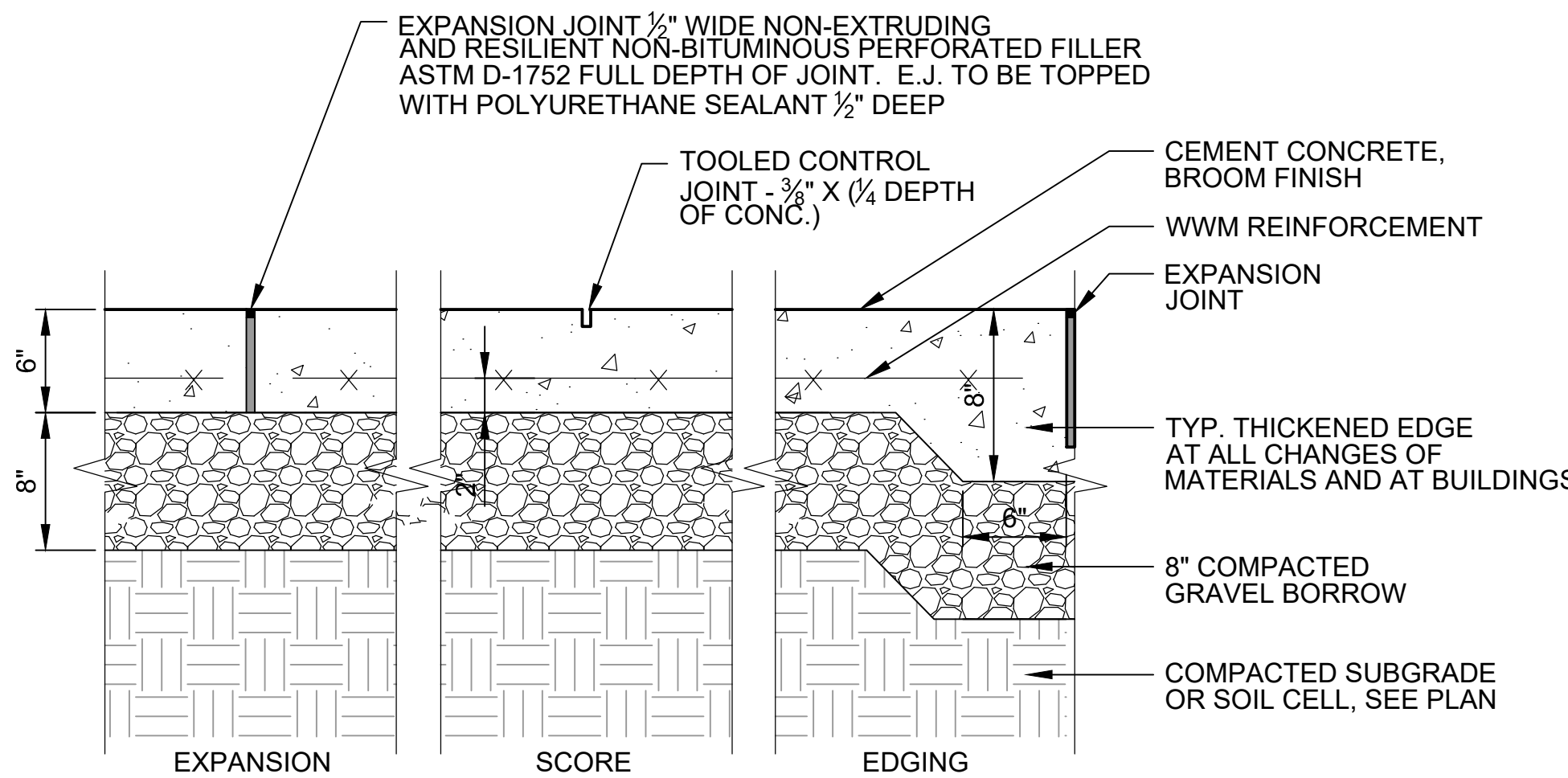


2 BITUMINOUS CONCRETE - VEHICULAR

SCALE: NTS



EXPANSION JOINT DETAIL



NOTES:
1. TYP. E.J. SHALL BE USED WHENEVER HORIZONTAL CONCRETE AND/OR OTHER PAVING SURFACES MEET VERTICAL CONCRETE AND/OR MASONRY SURFACES. NOT MORE THAN 20' IN ANY DIRECTION OR AS SHOWN ON PLANS.
2. CONCRETE 4000 PSI TYPE II IN 28 DAYS.
3. EXPANSION AND CONTROL JOINTS SHALL FOLLOW SCORING PATTERN SHOWN ON PLANS.
4. PROVIDE EXPANSION JOINTS AT MIN. 20 FT. O.C. U.N.O. WITH PRE-FORMED JOINT FILLER.
5. CONCRETE FINISHED W/STIFF BRISTLED NYLON BROOM, PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.

1 CONCRETE SIDEWALK

SCALE: NTS

HATCH

27 School Street, Boston, MA 02108
tel. 617-521-8611 www.hatch.com

Client/Owner:

City of Salem
98 Washington St.
Salem, MA 01970

Stamp:



SALEM WILLOWS

PHASE 2 IMPROVEMENTS

SALEM, MA

75% PERMITTING DOCUMENTS

Project:

Job Number:
H-368807

Date:
June 6, 2023

Drawn By:
MP

Designed By:
JB

Reviewed By:
DB

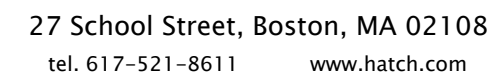
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Number: Description: Date:

Sheet Title:

**SITE
IMPROVEMENT
DETAILS**

Sheet No:

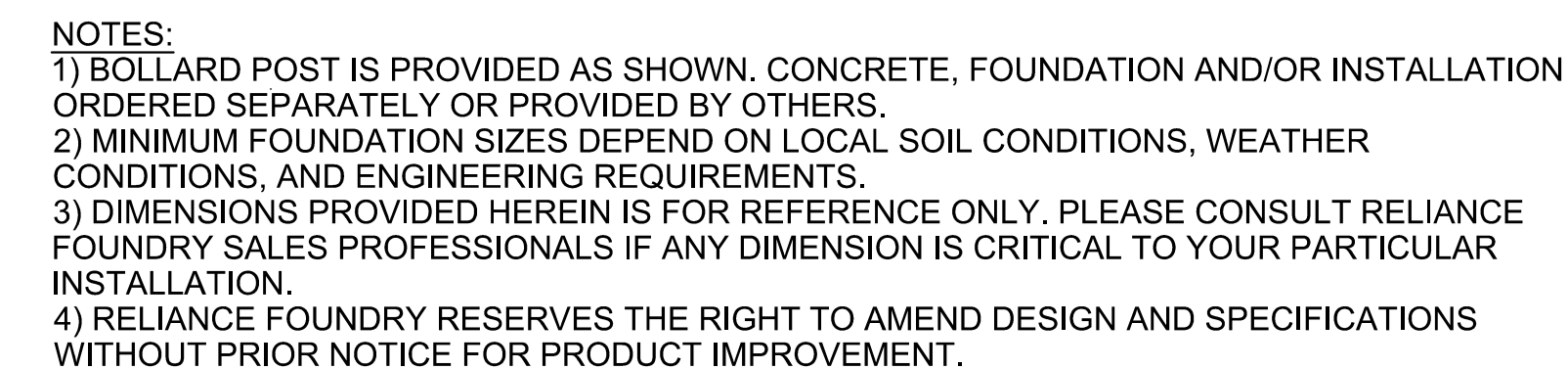
L-9



City of Salem
98 Washington St.
Salem, MA 01970

COMMONWEALTH OF MASSACHUSETTS
 ROB J. KENNEALLY
 CIVIL
 NO. 55740
 REGISTERED
 PROFESSIONAL ENGINEER

06/06/23



SALEM WILLOWS
PHASE 2 IMPROVEMENTS
SALEM, MA

Project:

Job Number:

H-368807

Date _____

June 6, 2023

Drawn By:

MF

Designed By:

JB

Reviewed By:
BB/BK

DB/RK

Revisions

[illegible]

Sheet Title:

SITE IMPROVEMENT DETAILS

Sheet No:

L-10

Client/Owner:

City of Salem
98 Washington St.
Salem, MA 01970

Stamp:



SALEM WILLOWS

PHASE 2 IMPROVEMENTS

SALEM, MA

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MP

Designed By:

JB

Reviewed By:

DB

Revisions

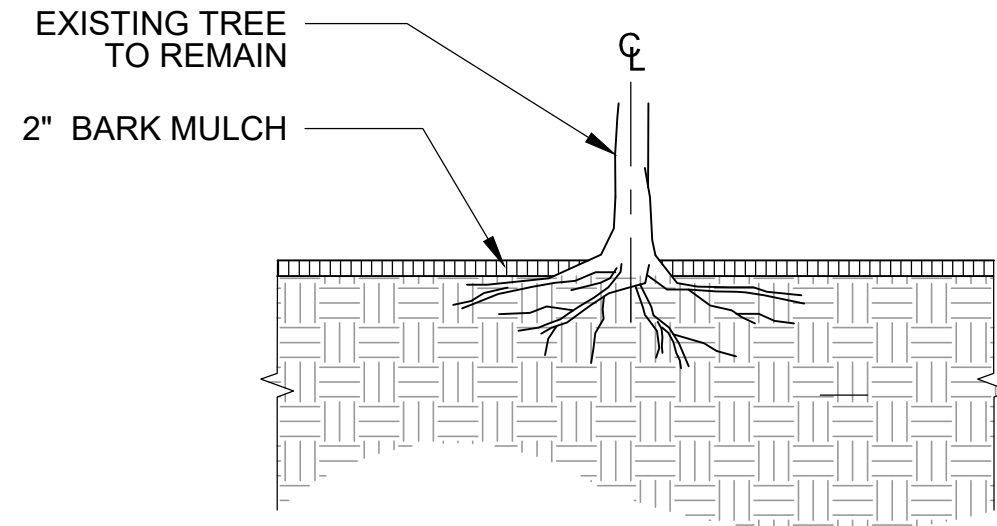
Number: Description: Date:

Sheet Title:

PLANTING
DETAILS & PLANT
SCHEDULE

Sheet No:

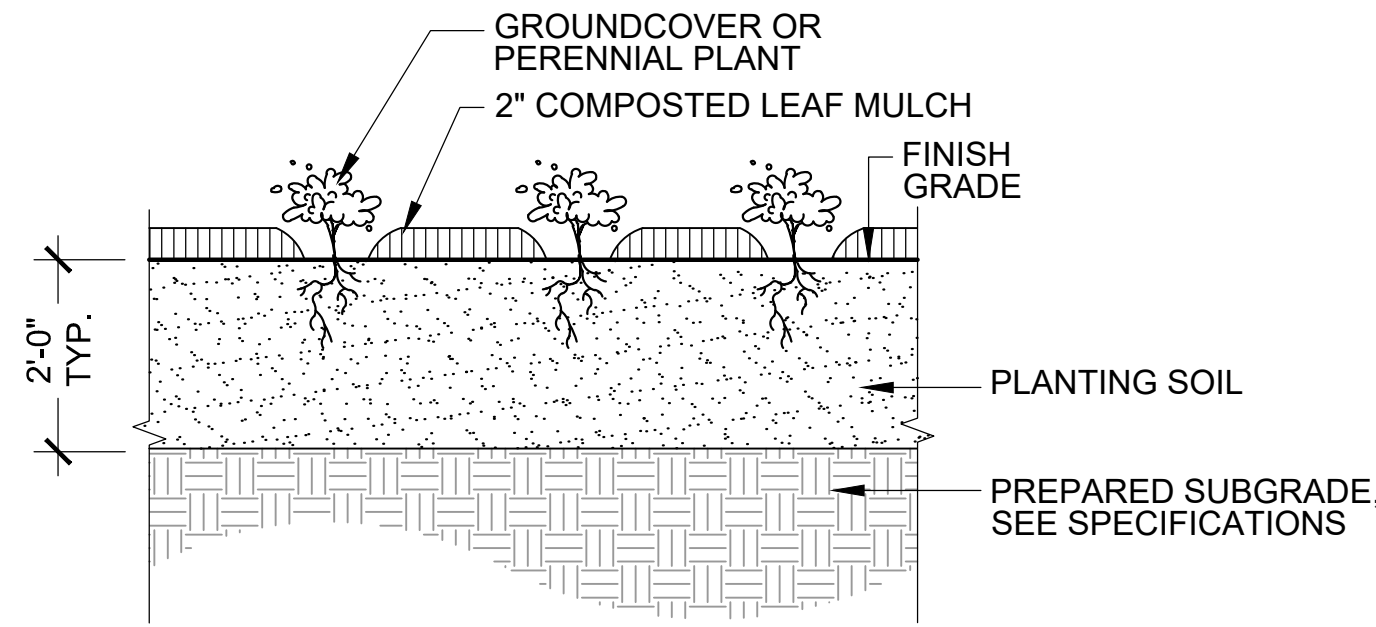
L-11



NOTES:

1. REMOVE ALL WEEDS AND TRIM ALL SUCKERS FLUSH.
2. SEE SPECIFICATION FOR EXISTING TREE PROTECTION AND MAINTENANCE.
3. AIRSPADE SOIL FROM AROUND EXISTING ROOTS WITHIN LIMITS OF CANOPY.
4. AIRSPADE SOIL TO LOOSEN SOIL AROUND EXISTING ROOTS. AMEND EXISTING SOIL WITH APPROVED PLANTING SOIL AND BACKFILL PER SPECIFICATIONS.

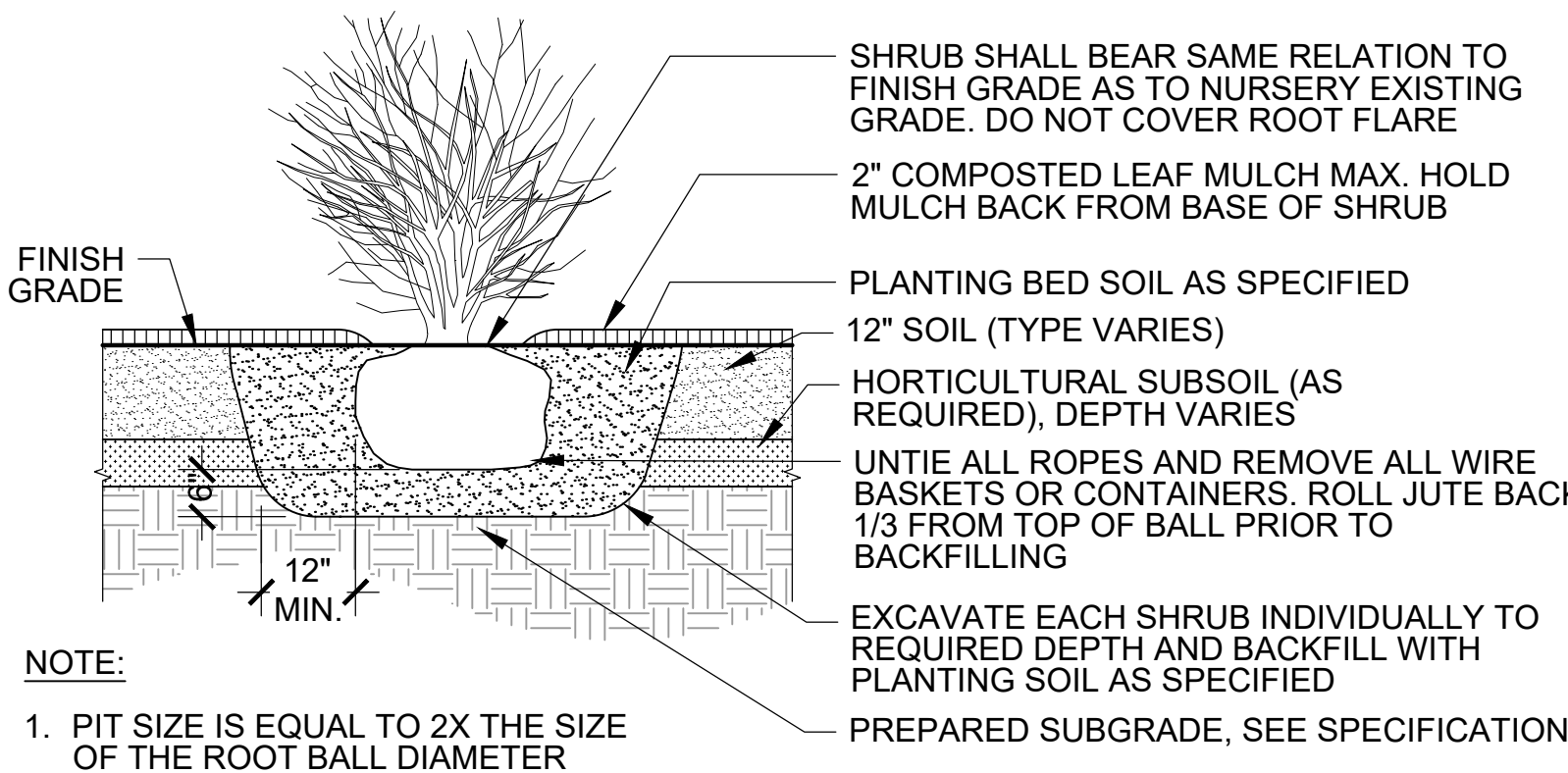
4 EXISTING TREE TREATMENT
SCALE: NTS



NOTE:

1. REFER TO PLANT SCHEDULE FOR SIZE AND SPACING.

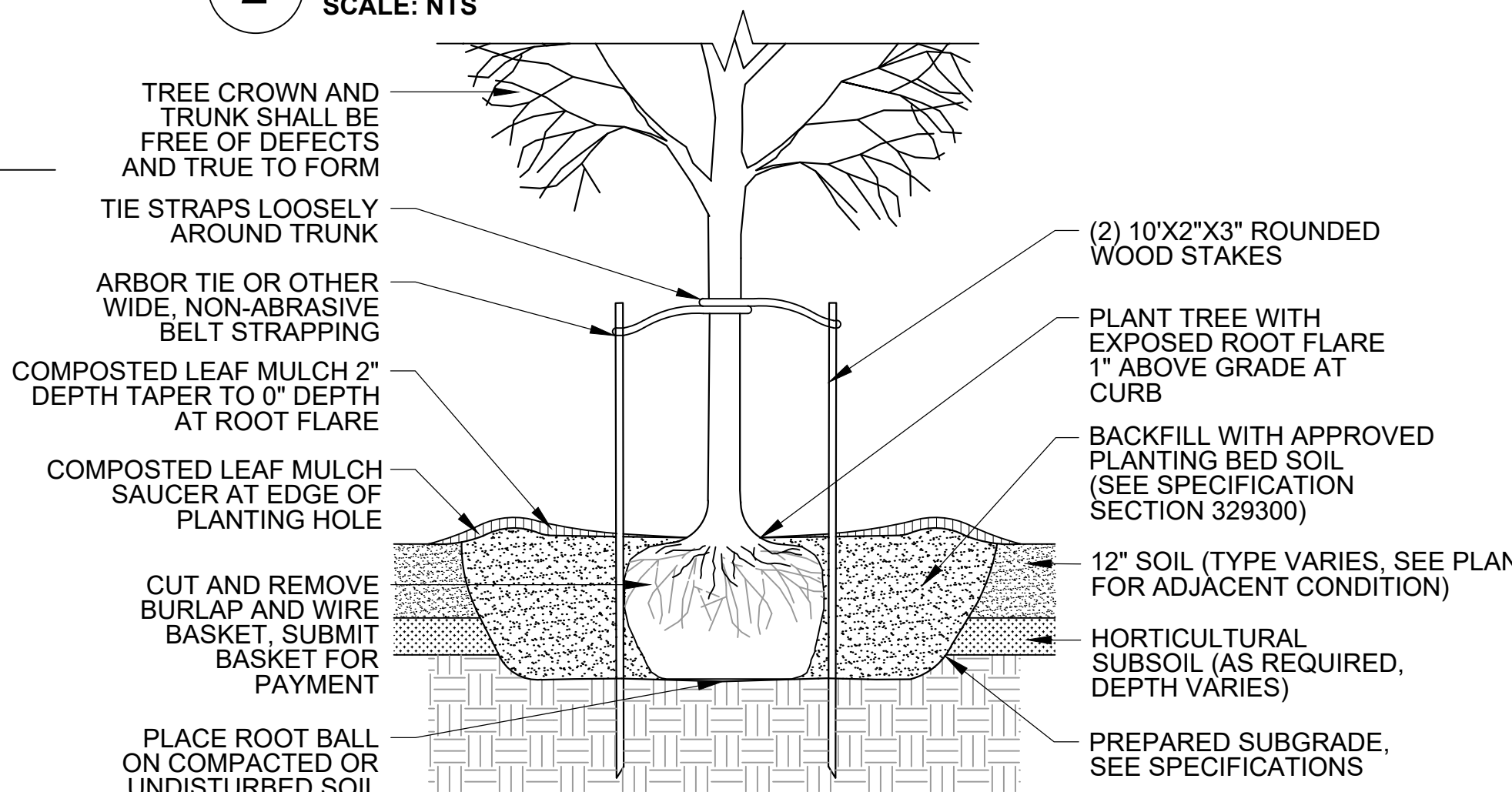
3 PERENNIAL / GROUNDCOVER PLANTING
SCALE: NTS



NOTE:

1. PIT SIZE IS EQUAL TO 2X THE SIZE OF THE ROOT BALL DIAMETER

2 SHRUB PLANTING
SCALE: NTS



NOTES:

1. PIT SIZE IS EQUAL TO 3X THE SIZE OF THE ROOTBALL DIAMETER.
2. LOCATIONS SHALL BE FLAGGED IN THE FIELD BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING.

1 TREE PLANTING
SCALE: NTS

PLANT SCHEDULE

DECIDUOUS SHADE TREES

QTY	SYM	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
2	FG	Fagus grandifolia	American Beech	2" CAL.	B&B
2	NS	Nyssa sylvatica	Black Gum	2" CAL.	B&B
2	PO	Platanus occidentalis	Sycamore	2" CAL.	B&B
1	QA	Quercus alba	White Oak	2" CAL.	B&B
1	QM	Quercus montana	Chestnut Oak	2" CAL.	B&B
1	QR	Quercus rubra	Red Oak	2" CAL.	B&B
1	QV	Quercus velutina	Black Oak	2" CAL.	B&B
1	SA	Sassafras albidum	Sassafras	8' HT.	CONT.
1	SB	Salix babylonica	Weeping Willow	3" CAL.	B&B
2	TA	Tilia americana	American Basswood	2" CAL.	B&B

DECIDUOUS SHRUBS

QTY	SYM	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
14	MP	Morella pensylvanica	Bayberry	36" HT.	CONT.
14	PM	Prunus maritima	Beach Plum	18" HT.	CONT.
14	RV	Rosa virginiana	Virginia Rose	18" HT.	CONT.

GROUNDCOVERS, PERENNIALS AND GRASSES

QTY	SYM	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
14	PV	Panicum virgatum	Switchgrass	18" HT.	CONT. 18" O.C.

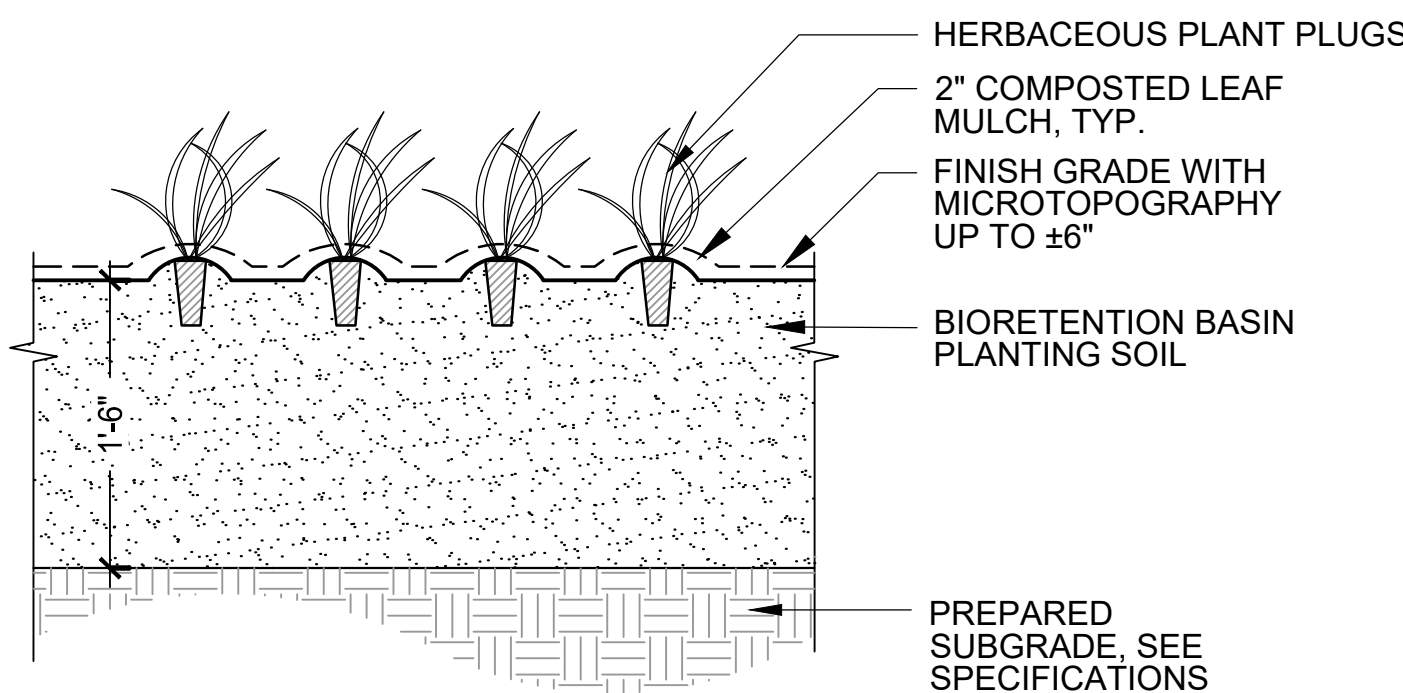
BIOBASIN PLUG PLANTINGS

QTY	SYM	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
200	AT	Asclepias tuberosa	Butterfly Weed	2.5" PLUG	12" SPACING
200	EP	Echinacea purpurea	Purple Coneflower	2.5" PLUG	12" SPACING
200	ES	Eragrostis spectabilis	Purple Lovegrass	2.5" PLUG	12" SPACING
200	JC	Juncus communis	Common Rush	2.5" PLUG	12" SPACING
200	PV	Panicum virgatum	Switchgrass	2.5" PLUG	12" SPACING
200	RH	Rudbeckia hirta	Black-Eyed Susan	2.5" PLUG	12" SPACING
200	SF	Solidago rugoso 'Fireworks'	'Fireworks' Goldenrod	2.5" PLUG	12" SPACING
200	SS	Schizachyrium scoparium	Little Bluestem	2.5" PLUG	12" SPACING

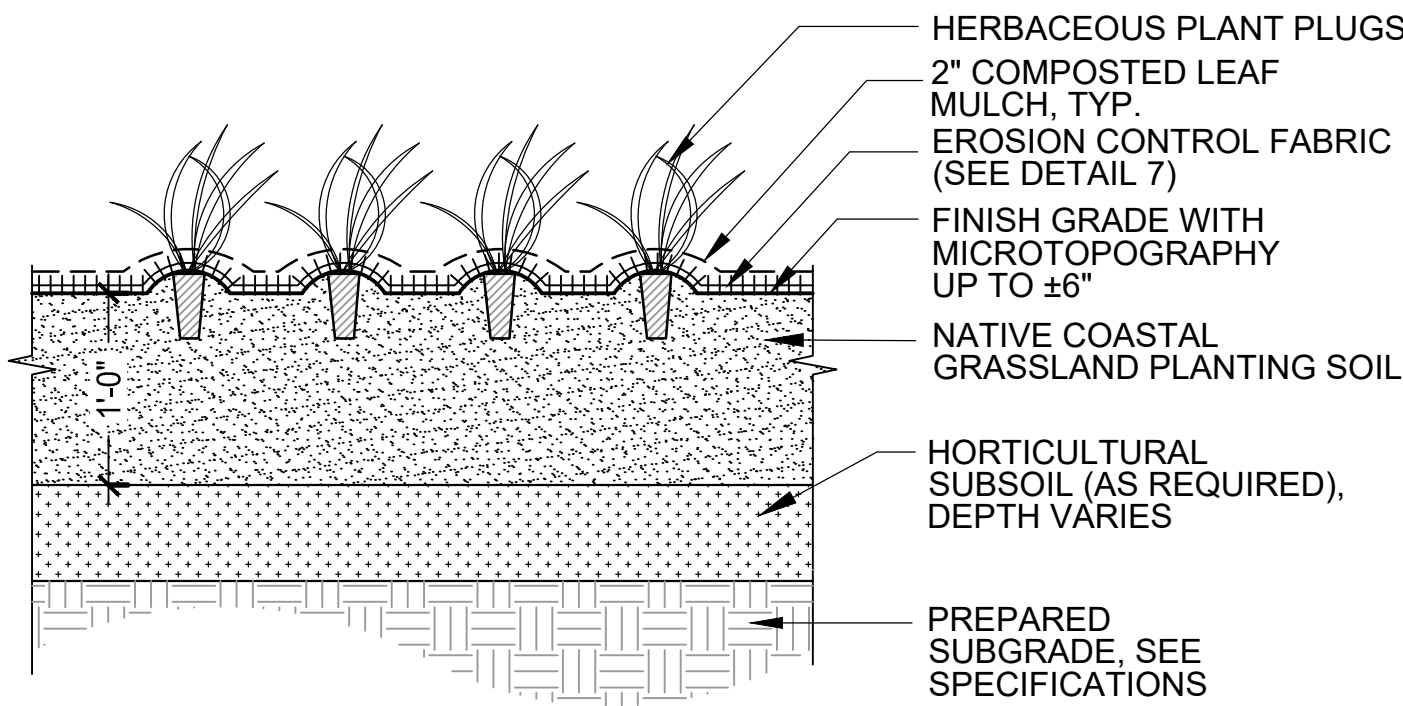
NATIVE COASTAL WOODLAND PLUGS

QTY	SYM	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
350	AT	Asclepias tuberosa	Butterfly Weed	2.5" PLUG	12" SPACING
350	DC	Deschampsia cespitosa	Coastal Hairgrass 'Pilgrim'	2.5" PLUG	12" SPACING
350	PA	Panicum amarum	Coastal Panic Grass	2.5" PLUG	12" SPACING
350	SS	Schizachyrium scoparium	Little Bluestem	2.5" PLUG	12" SPACING
350	SO	Solidago sempervirens	Seaside Goldenrod	2.5" PLUG	12" SPACING

8 PLANT SCHEDULE
SCALE: NTS



BIORETENTION BASIN



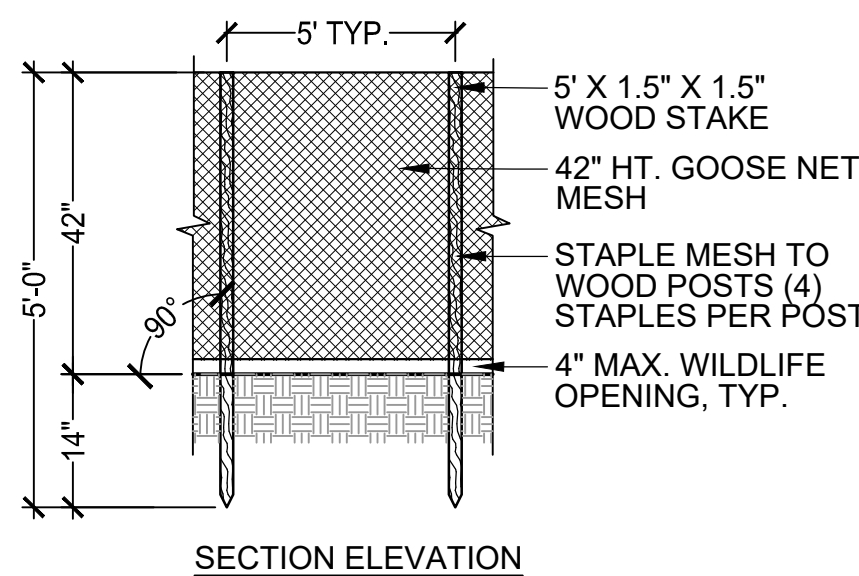
COASTAL GRASSLAND

5 HERBACEOUS PLUG PLANTING
SCALE: NTS

6 SEED ESTABLISHMENT FENCE
SCALE: NTS

NOTES:

1. SEED ESTABLISHMENT FENCE SHALL BE IN PLACE IMMEDIATELY FOLLOWING APPLICATION OF SEED.
2. SEED ESTABLISHMENT FENCE SHALL REMAIN IN PLACE UNTIL SEED GERMINATION IS COMPLETE.
3. ANY SECTIONS OF SEED ESTABLISHMENT FENCE THAT BECOME DAMAGED SHALL BE REPLACED IMMEDIATELY.
4. RELOCATE FENCE AFTER LAWN ESTABLISHMENT (SEE SPECIFICATION SECTION 329200, LAWNS AND GRASSES).



SECTION ELEVATION

NOTES:

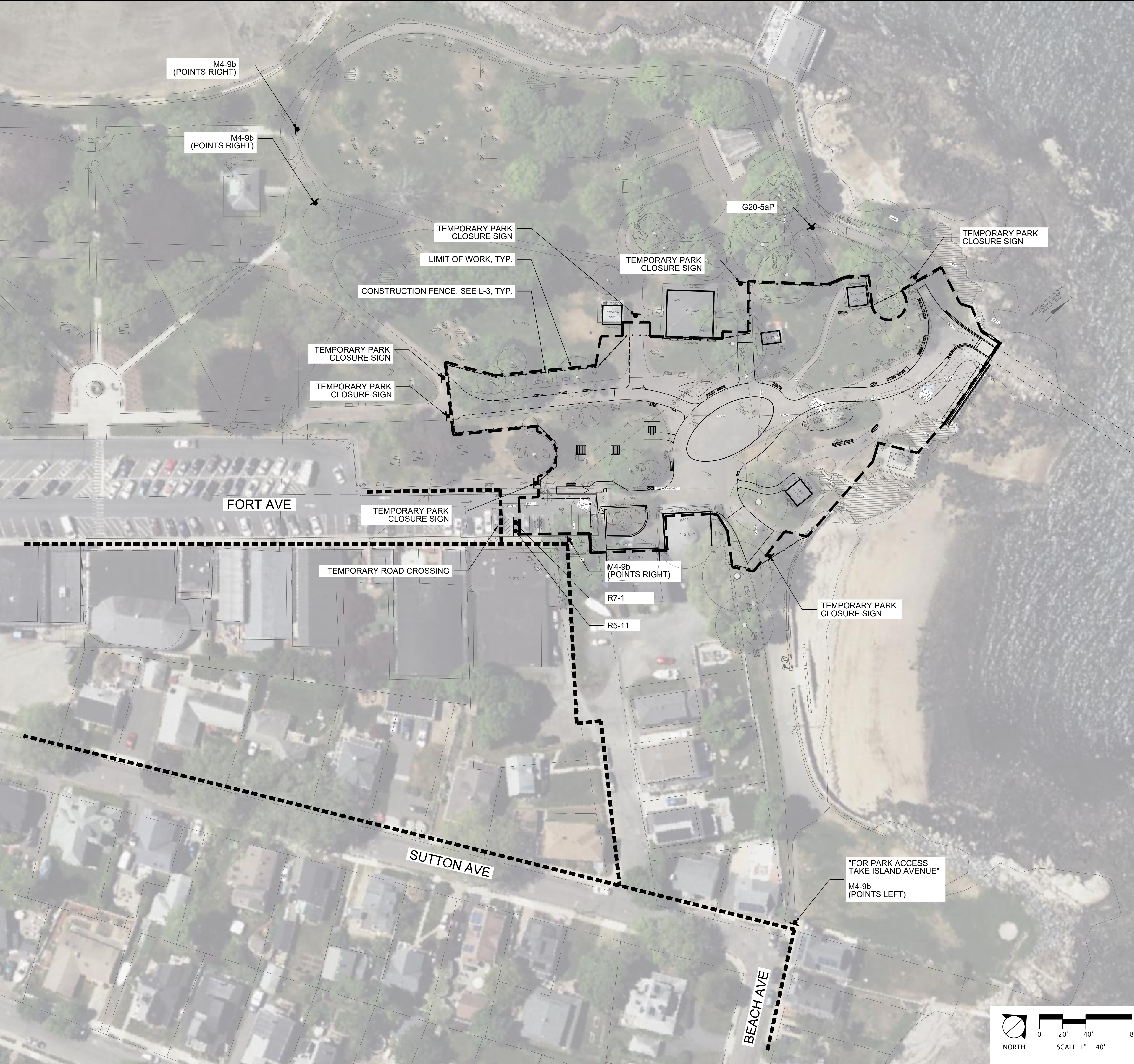
1. SEE PLANT SCHEDULE FOR PLUG SPACING.
2. CONTRACTOR SHALL BUTTERFLY CUT AND LOOSEN ROOTBOUND PLUGS PRIOR TO PLANTING.
3. CONTRACTOR SHALL HAVE ALL APPROVED FENCING MATERIALS ON SITE AND READY FOR INSTALLATION IMMEDIATELY FOLLOWING COMPLETION (SAME DAY) OF PLUG PLANTING.

1 TREE PLANTING
SCALE: NTS

LEGEND

- LIMIT OF WORK
- 6' HT. CHAIN LINK
CONSTRUCTION FENCE/GATE
- PEDESTRIAN ROUTE DURING
CONSTRUCTION

SIGN SCHEDULE			
SIGN	DESIGNATION	SIZE	QTY.
AUTHORIZED VEHICLES ONLY	R5-11	30 x 24	1
NO PARKING ANY TIME	R7-1	12 x 18	1
WORK ZONE AHEAD	G20-5aP	24 x 18	1
DETOUR →	M4-9b (POINTS RIGHT)	30 x 24	1
DETOUR ←	M4-9b (POINTS LEFT)	30 x 24	1



HATCH

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SALEM WILLOWS
PHASE 2 IMPROVEMENTS
SALEM, MA
75% PERMITTING DOCUMENTS

Project:

Job Number: H-368807
Date: June 6, 2023
Drawn By: MP
Designed By: JB
Reviewed By: DB/RK

Revisions
Number: Description: Date:

Sheet Title:
**TRAFFIC
MANAGEMENT
PLAN**

Sheet No:

TM-1

Client/Owner:

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98 Washington St.
Salem, MA 01970

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NOT FOR
CONSTRUCTION

SALEM WILLOWS
PHASE 2 IMPROVEMENTS
SALEM, MA
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Project:

Job Number:

H-368807

Date:

June 6, 2023

Drawn By:

CRM

Designed By:

PA

Reviewed By:

PA

Revisions

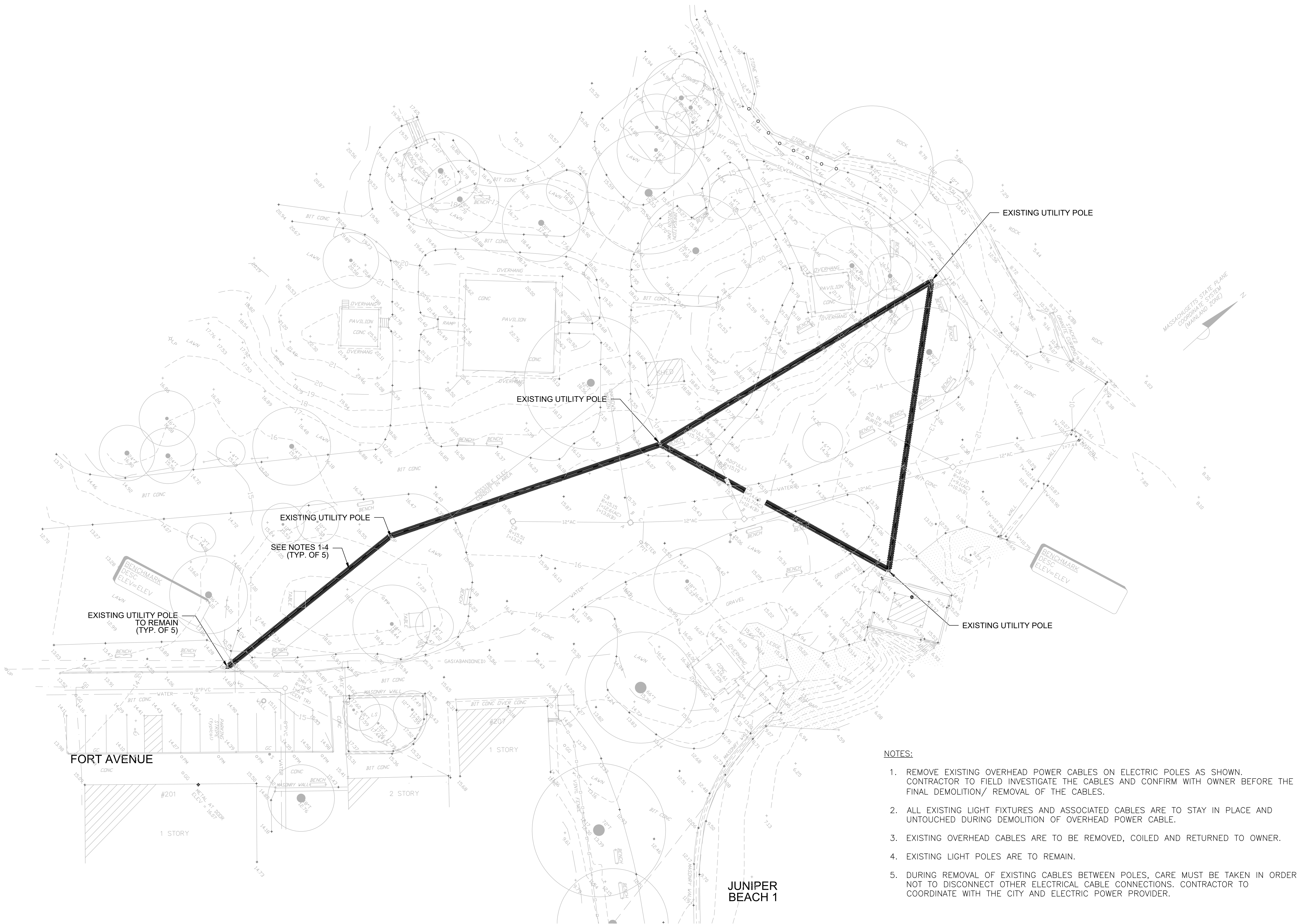
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ELECTRICAL
DEMOLITION PLAN

Sheet No:

E-1

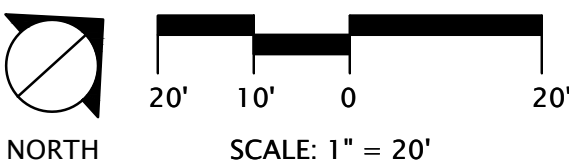


NOTES:

1. REMOVE EXISTING OVERHEAD POWER CABLES ON ELECTRIC POLES AS SHOWN. CONTRACTOR TO FIELD INVESTIGATE THE CABLES AND CONFIRM WITH OWNER BEFORE THE FINAL DEMOLITION/ REMOVAL OF THE CABLES.
2. ALL EXISTING LIGHT FIXTURES AND ASSOCIATED CABLES ARE TO STAY IN PLACE AND UNTOUCHED DURING DEMOLITION OF OVERHEAD POWER CABLE.
3. EXISTING OVERHEAD CABLES ARE TO BE REMOVED, COILED AND RETURNED TO OWNER.
4. EXISTING LIGHT POLES ARE TO REMAIN.
5. DURING REMOVAL OF EXISTING CABLES BETWEEN POLES, CARE MUST BE TAKEN IN ORDER NOT TO DISCONNECT OTHER ELECTRICAL CABLE CONNECTIONS. CONTRACTOR TO COORDINATE WITH THE CITY AND ELECTRIC POWER PROVIDER.

LEGEND:

- EXISTING UTILITY POLE
- ▨ DEMOLISH/REMOVE



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SALEM, MA

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PA

Reviewed By:

PA

Revisions

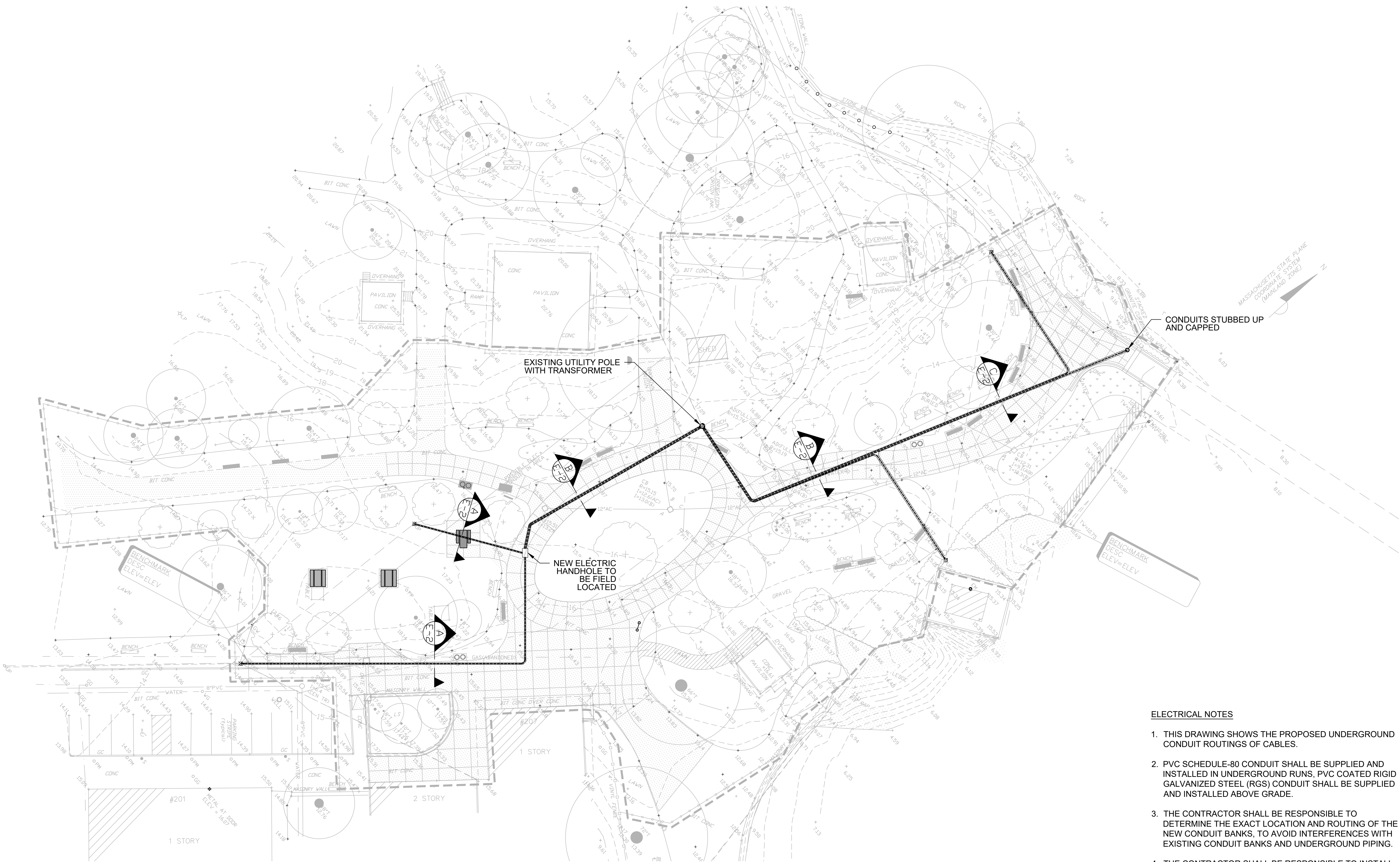
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ELECTRICAL
POWER PLAN

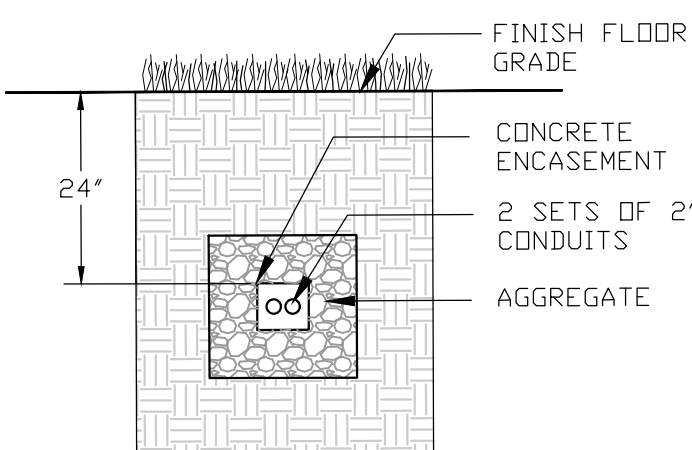
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E-2

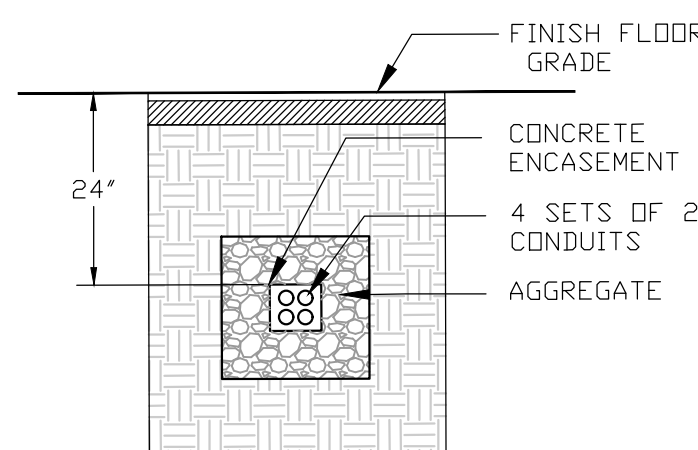


ELECTRICAL NOTES

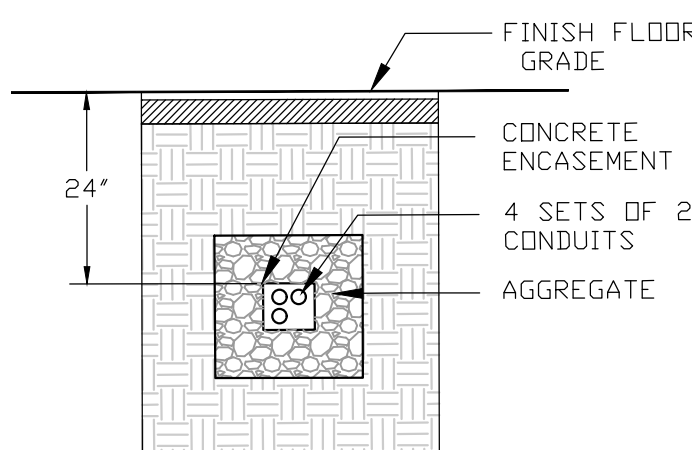
- THIS DRAWING SHOWS THE PROPOSED UNDERGROUND CONDUIT ROUTINGS OF CABLES.
- PVC SCHEDULE-80 CONDUIT SHALL BE SUPPLIED AND INSTALLED IN UNDERGROUND RUNS, PVC COATED RIGID GALVANIZED STEEL (RGS) CONDUIT SHALL BE SUPPLIED AND INSTALLED ABOVE GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE EXACT LOCATION AND ROUTING OF THE NEW CONDUIT BANKS, TO AVOID INTERFERENCES WITH EXISTING CONDUIT BANKS AND UNDERGROUND PIPING.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL PULL STATIONS IF IT IS DEEMED NECESSARY IN ACCORDANCE TO NEC CODE.
- ALL OUTDOOR ENCLOSURES SHALL BE RATED NEMA 4X S.S UNLESS SPECIFIED OTHERWISE ON DRAWING.
- ALL SPARE CONDUITS ARE TO BE CAPPED.
- THE CONTRACTOR SHALL INSTALL A 1/C #2 BARE COPPER STRANDED GROUND CABLE IN ALL DUCTBANKS FOR GROUNDING.



1 SECTION A
N.T.S.



2 SECTION B
N.T.S.



3 SECTION C
N.T.S.

