

GENERAL CONSTRUCTION NOTES

- ANY PLANT MATERIAL THAT MUST BE REMOVED DUE TO CONSTRUCTION MUST BE APPROVED BY LANDSCAPE ARCHITECT. NOTIFY OWNER AND LANDSCAPE ARCHITECT AT LEAST 48 HOURS PRIOR TO REMOVAL AND/OR RELOCATION OF ALL PLANT MATERIAL.
- IF ANY EXISTING PLANT MATERIAL THAT IS TO REMAIN IS DAMAGED BY CONTRACTOR, THE CONTRACTOR SHALL REPLACE THE DAMAGED PLANT WITH NEW MATERIAL OF THE SAME SIZE AND VARIETY AT CONTRACTOR'S EXPENSE AND AT NO COST TO THE OWNER.
- DO NOT DISTURB, COMPACT, OR ADD SOIL WITHIN BRANCH SPREAD OF TREES OR SHRUBS TO REMAIN WITHOUT APPROVAL AND SUPERVISION OF THE LANDSCAPE ARCHITECT.

GENERAL PROJECT NOTES

THE DRAWINGS, SPECIFICATIONS, AND ADDENDA DESCRIBING WORK FOR LANDSCAPE, HARDSCAPE, AND IRRIGATION PORTIONS OF THE PROJECT SHALL BE REFERRED TO AS THE LANDSCAPE CONSTRUCTION DOCUMENTS.

- COMPLIANCES
 - WORK UNDER THESE LANDSCAPE CONSTRUCTION DOCUMENTS SHALL BE IN ACCORDANCE WITH THE LOCAL JURISDICTION UNLESS SPECIFIED OTHERWISE IN THE LANDSCAPE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE FAMILIAR WITH THESE STANDARD SPECIFICATIONS, DETAILS, AND SUPPLEMENTS PRIOR TO BIDDING THE WORK COVERED BY THESE PLANS AND SPECIFICATIONS.
 - WORK UNDER THESE LANDSCAPE CONSTRUCTION DOCUMENTS SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES (FEDERAL, STATE, LOCAL, AND HEALTH DEPARTMENTS).
 - EXISTING TREES TO BE SAVED SHALL BE PROTECTED BY TREE PROTECTIVE FENCING BEFORE CONSTRUCTION BEGINS. NO EQUIPMENT OR MATERIALS SHALL BE STORED, OPERATED OR MAINTAINED WITHIN THE FENCED AREA. FENCES SHALL BE ON THE DRIPLINE AND COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES. NO CLEANING OF EQUIPMENT TRUCKS WILL BE ALLOWED IN THESE AREAS.
 - ALL AREAS OF NATIVE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION SHALL BE LEFT UNDISTURBED.
- CONTRACTOR RESPONSIBILITIES
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE JOB SITE TO BECOME FAMILIAR WITH ALL EXISTING CONDITIONS THAT COULD AFFECT THE INSTALLATION OF ANY WORK SET FORTH IN THESE PLANS PRIOR TO SUBMITTING A BID.
 - THE CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ANY PERMITS REQUIRED BY THE GOVERNING JURISDICTION TO COMPLETE ANY WORK COVERED BY THE LANDSCAPE CONSTRUCTION DOCUMENTS.
 - THE CONTRACTOR SHALL REVIEW THIS PROJECT AND PROPOSED CONSTRUCTION SEQUENCE MILESTONE DATES WITH THE LANDSCAPE ARCHITECT PRIOR TO STARTING ANY WORK.
 - CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH LANDSCAPE ARCHITECT PRIOR TO COMMENCING WORK.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, COORDINATION, & SEQUENCING OF THE WORK.
 - THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO EXISTING WALKS, WALLS, DRIVES, CURBS, UTILITIES, ETC. DAMAGED ELEMENTS SHALL BE REPLACED OR REPAIRED AT CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF OTHER TRADES ON THE SITE AS NECESSARY TO ENSURE ORDERLY AND EFFICIENT COMPLETION OF ALL WORK.
 - CONSULT PROJECT SPECIFICATIONS FOR WARRANTY REQUIREMENTS.
- QUESTIONS, DISCREPANCIES, MODIFICATIONS
 - SHOULD THE CONTRACTOR HAVE ANY QUESTIONS REGARDING THE LANDSCAPE CONSTRUCTION DOCUMENTS, THE LANDSCAPE ARCHITECT SHALL BE CONTACTED FOR CLARIFICATION BEFORE PROCEEDING FURTHER WITH THE WORK.
 - ANY DISCREPANCIES BETWEEN THE PLANS AND ANY SITE CONDITIONS SHALL BE REPORTED IN WRITING IMMEDIATELY TO LANDSCAPE ARCHITECT.
 - ANY DISCREPANCIES IN THE DRAWINGS SHALL BE REPORTED IN WRITING IMMEDIATELY TO LANDSCAPE ARCHITECT PRIOR TO THE START OF WORK.
 - NO DESIGN MODIFICATIONS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
- LOCATE UNDERGROUND UTILITIES PRIOR TO STARTING ANY CONSTRUCTION AND PROTECT FROM DAMAGE DURING CONSTRUCTION. THE CONTRACTOR SHALL CALL THE TEXAS ONE CALL NOTIFICATION SYSTEM (1-800-245-4545) PRIOR TO ANY EXCAVATION. EXISTING UNDERGROUND SERVICES SHALL NOT BE DISTURBED OR REMOVED UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS OR WITHOUT THE WRITTEN APPROVAL OF LANDSCAPE ARCHITECT. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THE CONSTRUCTION OPERATIONS.
- ANY CONFLICTS OR ADJUSTMENTS IN LAYOUT INFORMATION SHALL BE GRAPHICALLY PRESENTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.
- THE EXISTING QUANTITIES AND EXISTING SITE CONDITIONS SHOWN ON THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY THE ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK COVERED BY THESE PLANS AND SPECIFICATIONS.
- FINE GRADING TO ESTABLISH UNIFORM SMOOTH GRADE IS INCLUDED IN THIS PROJECT.
- ALL GENERAL SITE GRADING TO BE WITHIN +/- 0.10 FOOT, INCLUDING ALL BERMS, SWALES, AND RETENTION AREAS WILL BE CONSTRUCTED AS PER THE GRADING AND DRAINAGE PLANS. LANDSCAPE AREAS SHALL NOT EXCEED 4:1 MAXIMUM SLOPE (EXCEPT WHERE INDICATED ON GRADING PLANS) AND TURF AREAS SHALL NOT EXCEED 5:1 MAXIMUM SLOPE. THE LANDSCAPE AND IRRIGATION CONTRACTOR SHALL VERIFY AND ACCEPT THESE ROUGH GRADES PRIOR TO STARTING ANY LANDSCAPE AND IRRIGATION WORK. ALL DRAINAGE FLOWS SHALL BE PROTECTED AND MAINTAINED THROUGHOUT LANDSCAPE AND IRRIGATION CONSTRUCTION.
- QUALITY WORK & MATERIALS AS PART OF THIS PROJECT SHALL BE OF A GRADE 8 QUALITY CONSISTENT WITH THE INTENDED USE AS APPROVED BY THE LANDSCAPE ARCHITECT. WORK & MATERIALS NOT IN CONFORMANCE WITH THE LANDSCAPE CONSTRUCTION DOCUMENTS, OR THEIR INTENDED USE, ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- COMPLETE AND FUNCTIONING WORK, EQUIPMENT AND MATERIALS NOT SPECIFICALLY IDENTIFIED IN THE LANDSCAPE CONSTRUCTION DOCUMENTS - BUT THAT ARE REQUIRED FOR A COMPLETE AND FUNCTIONING INSTALLATION - SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AS PART OF THIS CONTRACT WORK WITHOUT ADDITIONAL COST TO THE OWNER.
- CLEAN UP: SITE TO BE KEPT CLEAN AT ALL TIMES. PROVIDE TRASH BINS. AT THE COMPLETION OF THE CONSTRUCTION, THE PROJECT SHALL BE CLEANED OF ANY DEBRIS OR SPOIL RESULTING FROM THE CONSTRUCTION. SITE SHALL BE TURNED OVER TO THE OWNER IN BROOM OR RAKED CLEAN CONDITION.
- FOR ALL STANDARD ENVIRONMENTAL NOTES, REFER TO CIVIL DRAWINGS

HARDSCAPE CONSTRUCTION NOTES

- NOTIFY LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF CONCRETE OPERATIONS. ALLOW LANDSCAPE ARCHITECT TO OBSERVE EXCAVATIONS, FORMWORK, AND REINFORCING PRIOR TO CONCRETE PLACEMENT.
- PROVIDE ELECTRICAL AND IRRIGATION SLEEVES UNDER PAVING AND THROUGH WALLS TO ALL PLANTING AREAS. NO EXCAVATION UNDER FOOTINGS SHALL BE PERMITTED. ALL SLEEVES TO RUN THROUGH THE STEM WALL BELOW GRADE.
- CONTRACTOR TO LOCATE ANY EXISTING IRRIGATION SLEEVES THAT NEED TO BE REPLACED FOLLOWING DEMOLITION AND PROPOSE ANY NECESSARY NEW SLEEVE LOCATIONS FOR APPROVAL BY LANDSCAPE ARCHITECT. NEW AND REPLACEMENT SLEEVES TO BE (2) @ 3"Ø SCH. 40 P.V.C.
- FOUNDATIONS FOR LANDSCAPE ELEMENTS: EXCAVATIONS SHALL BE NEXT TO LINES OF FOOTINGS. ALL LOOSE MATERIAL SHALL BE REMOVED FROM SURFACE TO RECEIVE CONCRETE. PLACE FOUNDATION CONCRETE ONLY ON CLEAN, FIRM, INSPECTED BEARING MATERIAL. FOOTINGS SHALL BEAR ON UNDISTURBED NATIVE SOIL OR ENGINEERED FILL. BEAR FOOTINGS AT DEPTHS INDICATED ON PLANS BUT AT DEPTHS NO SHALLOWER THAN 18" BELOW THE GRADE WITHIN 5 FEET OF THE FOUNDATION.
- VERIFY HEIGHTS, SLOPES, EDGE THICKNESS, AND TURNDOWNS BEFORE POURING FOOTINGS AND SLABS.
- CONCRETE FORMWORK FOR EXPOSED CONCRETE SHALL BE INSPECTED BY LANDSCAPE ARCHITECT AND APPROVED PRIOR TO CONCRETE POURS. CURVED FORMWORK SHALL BE CONTINUOUS THROUGHOUT THE CURVE, WITHOUT BREAKS OR FOLDS.
- CONCRETE FLAT WORK SHALL BE INSTALLED WITH A CONSTANT SLOPE BETWEEN TWO SPOT ELEVATIONS. CHANGES IN SLOPE SHALL BE ACCOMPLISHED IN A GRADUAL MANNER. ALL HARDSCAPE SHALL SLOPE AWAY FROM BUILDINGS AT MINIMUM 1/8-1/2 (1%) SLOPE (MAXIMUM 1:20 (5%) SLOPE) AND MEET ADA REQUIREMENTS.
- CONTROL JOINTS IN PAVING SHALL BE SAW CUT (UNLESS SPECIFICALLY NOTED OTHERWISE), STRAIGHT AND TRUE. REFER TO THE DRAWINGS FOR PATTERNS.
- CONCRETE JOINTING FOR WALLS AND FLAT WORK IS SCHEMATIC IN NATURE AND CONVEYS THE MINIMUM DESIGN INTENT. ADDITIONAL CONTRACTION, CONSTRUCTION AND EXPANSION JOINTS MAY BE REQUIRED. THE CONTRACTOR SHALL REVIEW ALL JOINTS SHOWN ON PLANS AND DESCRIBED IN THE SPECIFICATIONS PRIOR TO CONSTRUCTION. ALL REQUESTS FOR CHANGES TO JOINTING SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION. IF ADDITIONAL JOINTS ARE NECESSARY TO ALLEVIATE CRACKING OR FACILITATE CONSTRUCTION, THEY SHALL BE PROVIDED AT NO ADDITIONAL COST. ADDITIONAL JOINTS REQUESTED BY THE OWNER, ENGINEER OR LANDSCAPE ARCHITECT FOR AESTHETIC PURPOSES SHALL BE CONSIDERED ADDITIONAL TO THE BASE CONTRACT.

LAYOUT NOTES

- THE LANDSCAPE ARCHITECT HAS RELIED UPON THE SURVEY PROVIDED BY THE ARCHITECT FOR LOCATIONS OF ALL EXISTING BUILDINGS, HARDSCAPE ELEMENTS, AND TREES, AS WELL AS GRADES. THIS SURVEY DOES NOT REFLECT CHANGES TO GRADE AND DRAINAGE PATTERNS RESULTING FROM SUBSEQUENT SITE DEVELOPMENT. NO AS-BUILT SURVEY WAS PROVIDED. IN THE EVENT THAT LAYOUT BASED ON THIS SURVEY AND THE CAD FILES PROVIDED DOES NOT MATCH CONDITIONS IN THE FIELD, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT AND REQUEST FURTHER DIRECTION TO RECTIFY THE DISCREPANCY. THIS DIRECTIVE INCLUDES, BUT IS NOT LIMITED TO, CONSTRUCTION THAT WOULD IMPACT EXISTING TREES AND ALIGNMENTS WITH EXISTING ELEMENTS THAT ARE IN CONFLICT.
- CONTRACTOR TO FIELD STAKE ALL HARDSCAPE LAYOUT FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
- CONTRACTOR TO GIVE LANDSCAPE ARCHITECT 48 HOURS NOTICE PRIOR TO ALL SITE VISITS TO OBSERVE LAYOUT.
- CONTRACTOR TO TAG FOR APPROVAL BY LANDSCAPE ARCHITECT ALL VEGETATION PROPOSED TO BE REMOVED TO MAKE WAY FOR NEW CONSTRUCTION.
- CONTRACTOR TO FIELD STAKE PROPOSED LIMITS OF CONSTRUCTION FOR TREE AND NATURAL AREA PROTECTION FOR APPROVAL BY LANDSCAPE ARCHITECT. SEE DETAILS FOR TREE AND NATURAL AREA PROTECTION.
- CONTRACTOR TO FIELD STAKE CENTER LINE OF ALL PATHS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO SETTING FORMS.
- CURVES ON ALL PATHS TO HAVE SMOOTH RADII WITH NO SHARP TURNS OR ABRUPT CHANGES.
- NEW PATHS AND PAVING TO MATCH EXISTING GRADES WHERE TIED IN TO EXISTING SURFACES TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT NEW SURFACES SLOPE TO PROVIDE ADEQUATE DRAINAGE AND ALSO MEET ADA REQUIREMENTS FOR MAXIMUM SLOPE AND CROSS-SLOPE. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT NEW WORK DOES NOT RESULT IN PONDING OR EROSION DUE TO CHANGES IN DRAINAGE PATTERNS. ROUTE DRAINAGE FLOWS AROUND OR UNDER NEW WORK AS REQUIRED. NOTIFY LANDSCAPE ARCHITECT OF CONDITIONS AND CIRCUMSTANCES IN THE FIELD WHERE DRAINAGE ISSUES MAY IMPACT LAYOUT.

ABBREVIATIONS

ADJ	adjacent	NIC	not in contract
ALT	alternate	NTS	not to scale
APPROX	approximate	NO	number
ARCH	architectural	OC	on center(s)
		OCEW	on center each way
B&B	bailed and burlapped	OPP	opposite
BTM	bottom	OD	outside diameter
BC	bottom of curb		
BS	bottom of steps	PTD	paint(ed)
BW	bottom of wall	PVMT	pavement
BLDG	building	PERF	perforate(d)
		PL	plate
CAL	caliper	POB	point of beginning
CIP	cast-in-place	PL	property line
CL	centerline		
CLR	clear(ance)	REF	reference
CONC	concrete	REFN	reinforcing
CMU	concrete masonry unit	REV	revision(s), revised
CJ	concretion joint	REQ	required
CF	cubic foot	ROW	right-of-way
CY	cubic yard		
		SCH	schedule
DEMO	demolish, demolition	SEC	section
DTL	detail	SHT	sheet
DIA	diameter	SIM	similar
DSH	diameter breast height	SPEC	specification
DIM	dimension	SQ	square
DWG	drawing	SSL	stainless steel
		STL	steel
EW	each way	STRL	structural
ELEV	elevation		
EQ	equal	TB	top of bridge
EQUIP	equipment	TC	top of curb
EX(IST)	existing	TH	thick(ness)
EJ	expansion joint	TP	top of steps
EXT	exterior	TW	top of wall
		TYP	typical
FIN	finish(ed)	TP	top of paving
FFE	finished floor elevation		
FG	finish grade	UON	unless otherwise noted
FT	foot, feet		
		VFY	verify
GA	gage, gauge	VIF	verify in field
GALV	galvanized	VERT	vertical
GC	general contract(or)		
GB	grade break	WWF	welded wire fabric
		W	width, wide
HD	heavy duty	WI	with
HT	height	W/O	without
HP	high point	WD	wood
		WWM	woven/welded wire mesh
INT	interior		
INV	invert		
LA	landscape architect		
L	length		
LOC	limit of contract		
LF	linear feet		
LP	low point		
MH	manhole		
MFR	manufacture(r)		
MAX	maximum		
MECH	mechanical(al)		
MIN	minimum		
MISC	miscellaneous		

SYMBOLS

@	at
'	feet
"	inches, seconds
°	degrees
CL	centerline
Ø	diameter
#	pound, number

SHERIDAN CAMPUS

SAN ANTONIO RIVER AUTHORITY

LANDSCAPE ARCHITECTURE SUBMITTAL
60% CONSTRUCTION DOCUMENTATION

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L-803	IRRIGATION PLAN C
L-804	IRRIGATION PLAN D&E
L-805	IRRIGATION DETAILS
L-806	IRRIGATION DETAILS

Project No. 22068A

PRELIMINARY
This design document is
incomplete and may not be
used for regulatory approval,
permitting, or construction.

Date 2024-08-23

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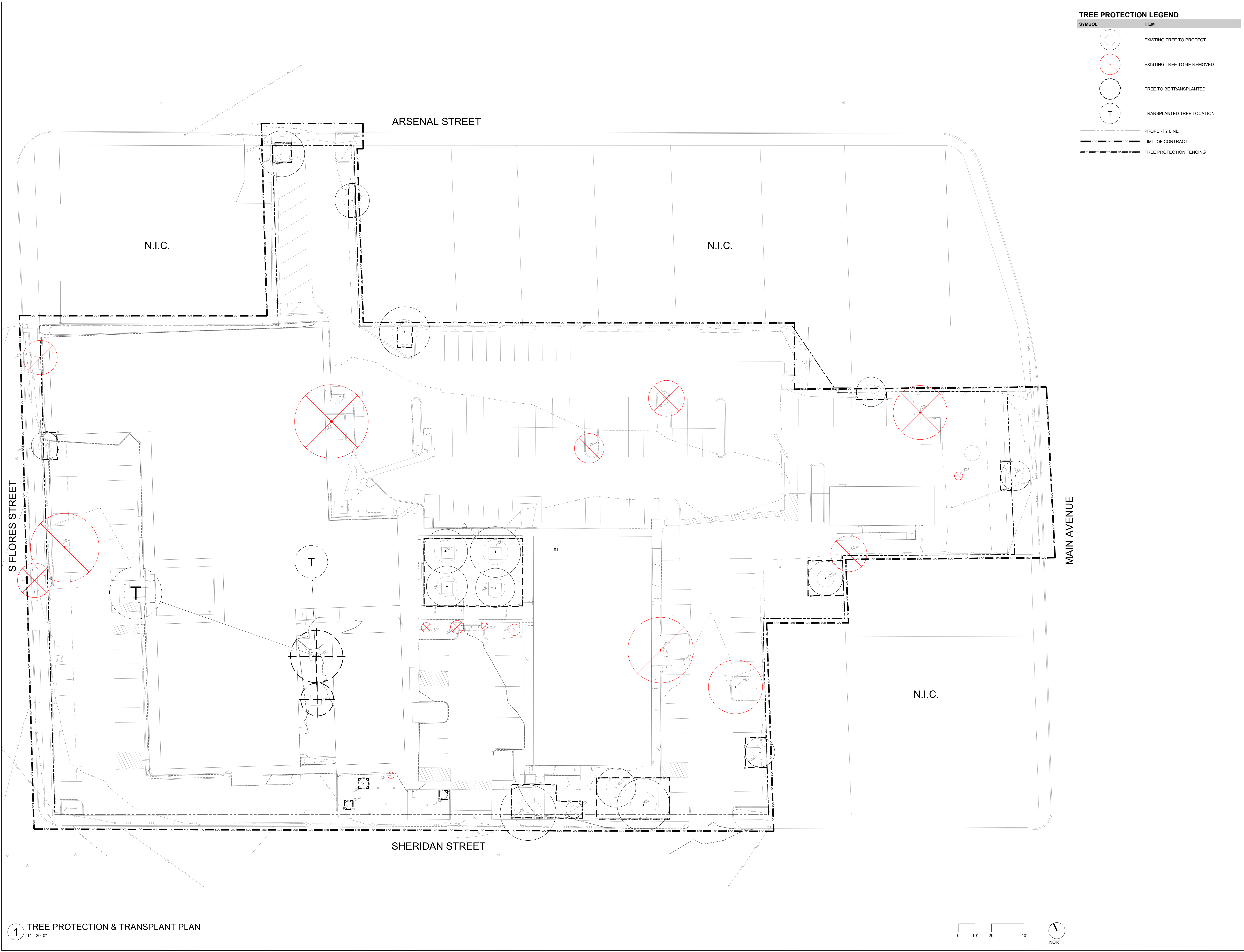
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60% CONSTRUCTION
DOCUMENTS

L-000

COVER SHEET



TREE PROTECTION LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	EXISTING TREE TO BE REMOVED
	TREE TO BE TRANSPLANTED
	TRANSPLANTED TREE LOCATION
	PROPERTY LINE
	LIMIT OF CONTRACT
	TREE PROTECTION FENCING

1 TREE PROTECTION & TRANSPLANT PLAN
1" = 20'-0"

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60% CONSTRUCTION DOCUMENTS

L-001

TREE PROTECTION & TRANSPLANT PLAN

Landscape Code Compliance				
Zoned: C-3NA				
Category	Ordinance Required	Proposed Standard		
Mandatory Requirements				
Tree Preservation				
Bufferyard	Type C			
Screening (w/in streetyard)	6' HT			
Landscape Materials	1.5" MIN. Caliper/6' HT trees; 2' HT MIN. large shrub; 1' HT MIN. small to medium shrubs Topped with MIN.4" mulch			
Protection of plant area	Plant areas must be protected by curbs and wheelstops			
General Maintenance	Plants shall be maintained in a healthy condition and any plants that die should be replaced within 90 days after notification by the city			
Utility Lines	Property owner shall preserve and replace plants within utility easement			
Irrigation				
Parking Lot Shading	25% Shade			
Elective Requirements				
Category	Ordinance Required	Proposed Standard	Possible Points	Points Earned
Tree Preservation	Points for tree preservation based on location		40	40
Screening Surface Parking	30" Min Height		25	25
Parking Lot Shading	25% shade min		20	20
	Additional points for 35% (+5) to 50% (+15)			
Street Trees	Trees extend along MIN. 75% of the total frontage of street yard on average no more than 50' apart; located no more than 17' from street right of way		25	25
Understory Preservation	Preserve understory adjacent to parking lot or plant a mix of canopy and understory species		15	0
Infill or Commercial Retrofit Use Pattern	No more than 4,300 sq. of impervious surface added		25	25
Total Points			70 PT. Min	
			150	135

TREE AND NATURAL AREA PROTECTION NOTES

- ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING. SEE PLAN AND DETAILS.
- PROTECTIVE FENCES SHALL BE ERECTED AS DETAILED FOR TREE PROTECTION. THE FENCE SHALL CONSIST OF 5'-0" FOOT TALL CHAIN LINK FENCING MATERIAL AND NON-MOVABLE POSTS INSTALLED AT 6'-0" FOOT INTERVALS OR LESS.
- PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING AND GRADING), AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE PROJECT.
- EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIP LINES.
- PROTECTIVE FENCES SHALL COMPLETELY SURROUND THE TREES OR GROUP OF TREES AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE). SIGNS IN ENGLISH AND SPANISH, VISIBLE FROM ALL DIRECTIONS, SHALL BE PLACED ON THE FENCE TO INFORM WORKERS OF THE PURPOSE FOR THE BOUNDARY. FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE. IN ORDER TO PREVENT THE FOLLOWING:
 - SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS.
 - ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN FOUR INCHES (4") CUT OR FILL) OR TRENCHING NOT INDICATED ON PLANS.
 - WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT.
 - OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
- EXCEPTIONS TO INSTALLING PROTECTIVE FENCES AT CRITICAL ROOT ZONES (THE CRITICAL ROOT ZONE IS DEFINED AS THE DRIP LINE OF THE TREE OR 12" RADIAL DISTANCE FROM THE TRUNK FOR EACH INCH OF TRUNK DIAMETER MEASURED AT 54" ABOVE GRADE, WHICHEVER IS GREATER) MAY BE PERMITTED IN THE FOLLOWING CASES:
 - WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT. ERECT THE FENCE APPROXIMATELY 2 TO 4 FEET BEYOND THE AREA DISTURBED.
 - WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
 - WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN 8 FEET TO THE BUILDING.
 - WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE LANDSCAPE ARCHITECT TO DISCUSS ALTERNATIVES.
 - ANY DEVIATIONS FROM TREE PROTECTION FENCING OR CRITICAL ROOT ZONE PROTECTION REQUIREMENTS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

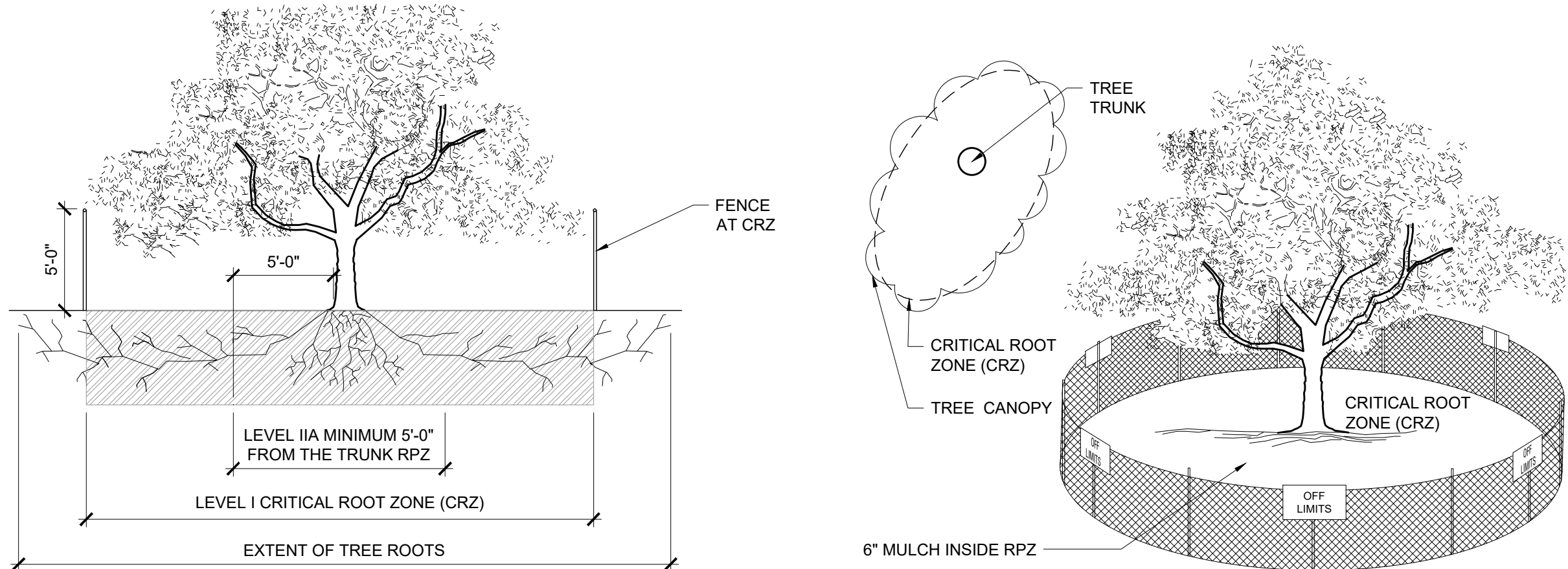
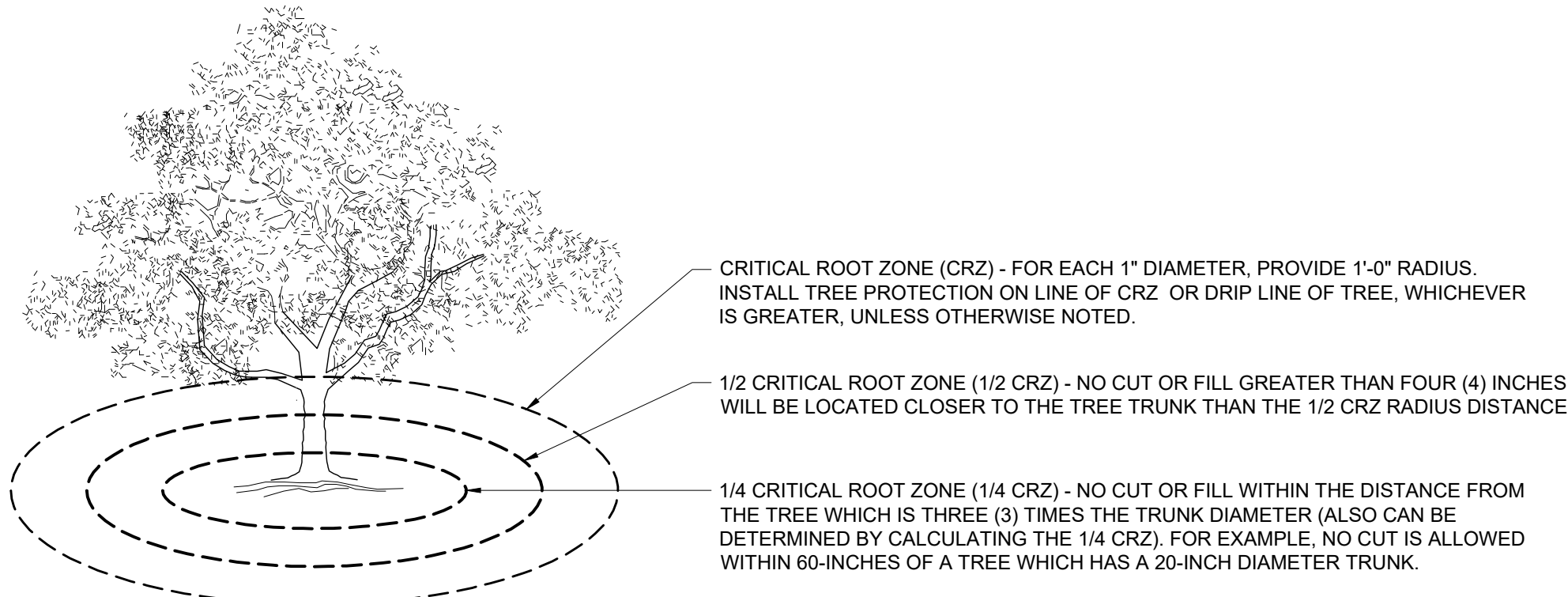
- SPECIAL NOTE:** FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED.
- WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 5 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING.
 - WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES, THOSE AREAS SHOULD BE COVERED WITH 8 INCHES OF COARSE ORGANIC MULCH TO MINIMIZE SOIL COMPACTION.
 - ALL GRADING WITHIN PROTECTED ROOT ZONE AREAS SHALL BE DONE BY HAND OR WITH AN AIR SPADE TOOL TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCES TO 2 FEET BEHIND THE GRADE CHANGE AREA. IN NO CASE SHALL THE FENCING BE LOCATED CLOSER TO THE TREE TRUNK THAN SIX TIMES THE DIAMETER OF THE TRUNK.
 - ANY ROOTS EXPOSED, CUT, OR TORN BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND THE WOUND SHALL BE PAINTED WITH STANDARD TREE WOUND DRESSING IF APPROVED BY ARBORIST. TREE WOUND DRESSING SHALL BE EITHER TREEKOTE AEROSOL OR TANGLEFOOT PRUNING SEALER (OR APPROVED EQUAL). BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
 - PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIP LINES, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE DAMAGE TO REMAINING ROOTS. SEVERED ROOTS ON THE UNDISTURBED SIDE OF THE EXCAVATION SHALL BE CUT CLEANLY AND PAINTED WITH STANDARD TREE WOUND DRESSING.
 - TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHOULD BE WATERED DEEPLY ONCE A WEEK DURING THE GROWING SEASON. THE WEEKLY TOTAL OF NATURAL RAINFALL AND SUPPLEMENTAL WATER SHOULD BE THE EQUIVALENT OF 1 INCH OR 750 GAL./1000 SF. TREE GROWTHS SHALL BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
 - ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE. TRENCHING WITHIN THE 1/2 CRITICAL ROOT ZONE SHALL BE PERFORMED BY HAND EXCAVATION OR WITH AN AIR SPADE TOOL.
 - NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL OR MULCH IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
 - PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS WITH DIRECTION FROM LANDSCAPE ARCHITECT.
 - ALL PRUNING MUST BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE LANDSCAPE ARCHITECT). ARBORIST TO PERFORM ALL NECESSARY BRANCH PRUNING. IN ACCORDANCE WITH ARBORIST RECOMMENDATIONS.
 - DEVIATIONS FROM THE ABOVE NOTES MAY RESULT IN FINES IF THERE IS SUBSTANTIAL NONCOMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.
 - TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED OR THEIR ROOT ZONES.
 - REFER TO LOCAL, STATE AND FEDERAL JURISDICTIONS AND GOVERNING BODIES/AGENCIES FOR ADDITIONAL REQUIREMENTS.
 - NO HEAVY EQUIPMENT IS ALLOWED IN HALF CRITICAL ROOT ZONE AT ANY TIME.

OAK WILT PREVENTION NOTES

- PRUNING OF AN EXISTING TREE THAT IS NECESSARY AS PART OF THIS PROJECT SHALL BE CONDUCTED IN ACCORDANCE WITH ANSI A300-1995 STANDARDS, OR LATEST APPROVED EDITION, AND PERFORMED BY A CERTIFIED ARBORIST.
- PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS, TO PREVENT BARK TEARS, THE WEIGHT OF BRANCH SHALL BE REMOVED BEFORE MAKING FINAL PRUNING CUT.
- ALL PRUNING SHALL PRESERVE THE NATURAL CHARACTER OF THE TREE.
- ONLY COLLAR CUTS ARE ACCEPTABLE. FLUSH CUTS OR STUB CUTS WILL NOT BE ALLOWED.
- ALL TREE BRANCHES, NECESSARY TO BE REMOVED FOR THE SAFE CONSTRUCTION OF THIS PROJECT, SHALL BE IDENTIFIED BY THE CONTRACTOR AND APPROVED BY THE GENERAL PERMIT OFFICE INSPECTOR PRIOR TO REMOVAL.
- ALL BRANCHES THAT ARE BROKEN OR DAMAGED DURING CONSTRUCTION SHALL BE REMOVED.
- PRUNING CUTS AND DAMAGED AREAS ON AN OAK TREE SHALL BE PAINTED WITHIN FIVE MINUTES WITH A STANDARD TREE WOUND DRESSING. TREE WOUND DRESSING SHALL BE EITHER TREEKOTE AEROSOL OR TANGLEFOOT PRUNING SEALER (OR APPROVED EQUAL).
- ANY TREE ROOTS THAT ARE EXPOSED, CUT, OR TORN DURING CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SURROUNDING SOIL. (REFER ALSO TO NUMBER 9 OF THE TREE AND NATURAL AREA PROTECTION NOTES INCLUDED IN THIS PLAN SET).

NOTES:

- CRITICAL ROOT ZONE (CRZ) - THE CRITICAL ROOT ZONE IS A CIRCULAR AREA AROUND A TREE THAT IS BASED ON THE DIAMETER OF THE TREE. EACH ONE-INCH (1") DIAMETER OF THE TREE (DBH) EQUALS ONE-FOOT (1'-0") RADIUS FOR CRITICAL ROOT ZONE. EXAMPLE: 20" DBH TREE = 20'-0" RADIUS FENCING.
- THE FENCING SHOWN IS DIAGRAMMATIC ONLY AND WILL CONFORM TO THE DRIP LINE, OR 12" RADIAL DISTANCE FROM THE TRUNK FOR EACH INCH OF TRUNK DIAMETER, WHICHEVER IS GREATER, AND LIMITED TO PROJECT BOUNDARY.
- FOR ACCEPTABLE FENCING MATERIALS, SEE STANDARD NOTES ON THIS SHEET AT RIGHT.

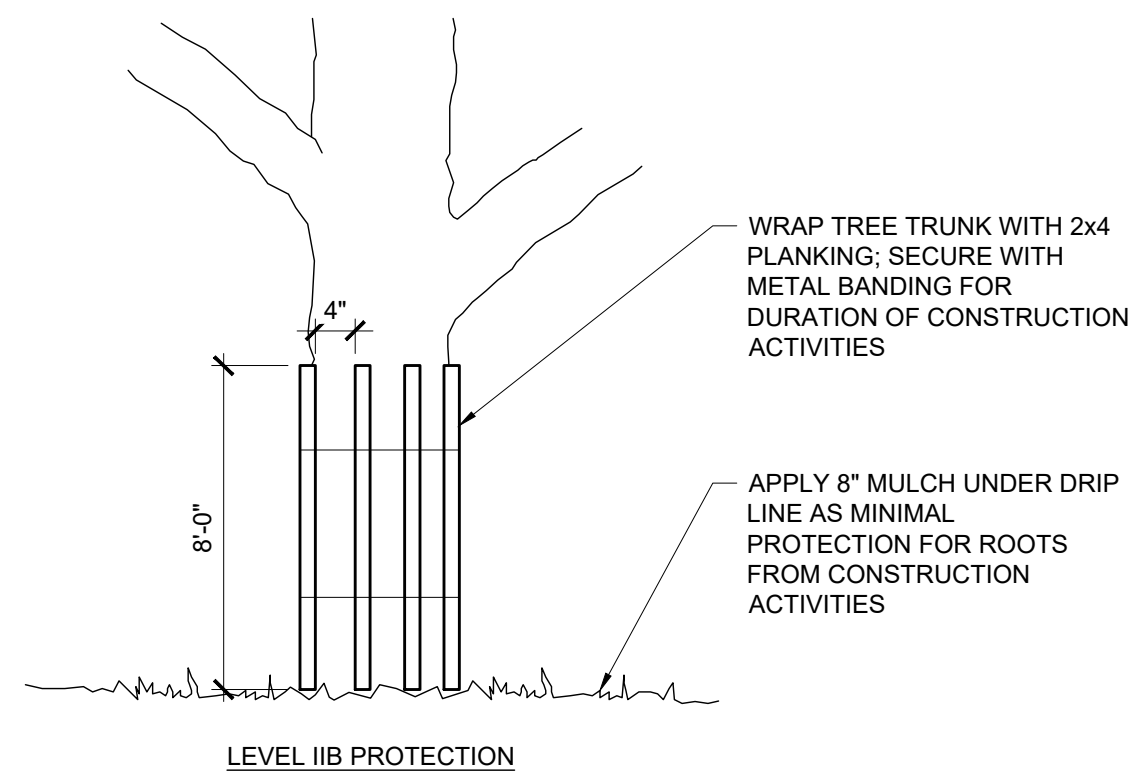
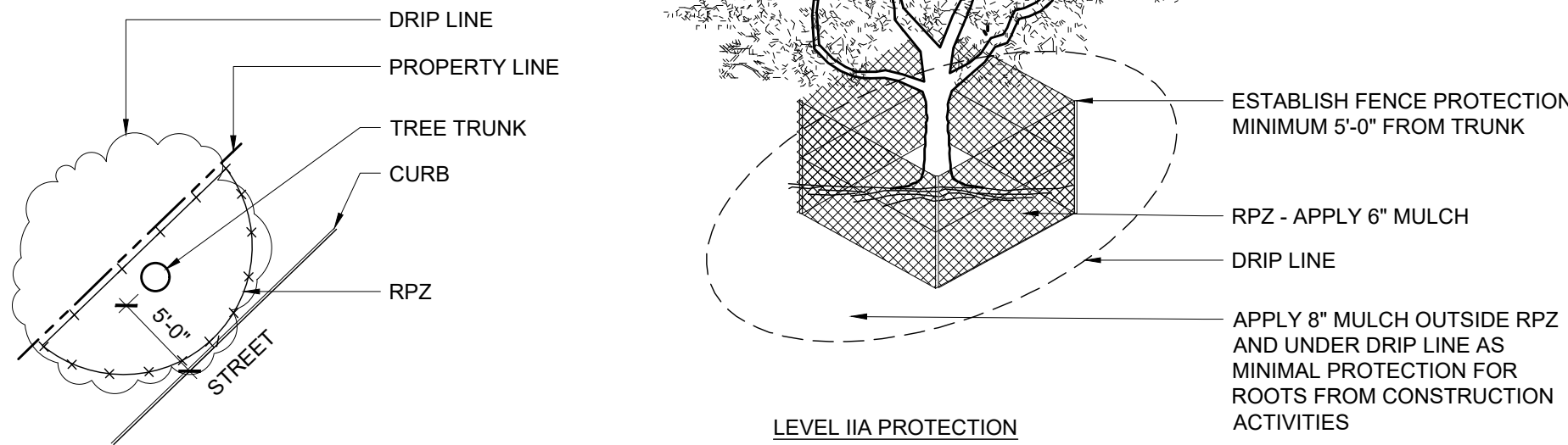


6 LEVEL ONE - TREE PROTECTION & CRITICAL ROOT ZONE FENCING

NTS

NOTES:

- LEVEL IIA & B OPTIONS ONLY USED FOR TIGHT CONSTRUCTION AREAS OR WHEN CONSTRUCTION OCCURS IN CRITICAL ROOT ZONE (CRZ), AND MUST BE APPROVED PRIOR TO INSTALLATION BY LANDSCAPE ARCHITECT.
- FOR ACCEPTABLE FENCING MATERIALS, SEE STANDARD NOTES ON THIS SHEET AT RIGHT.

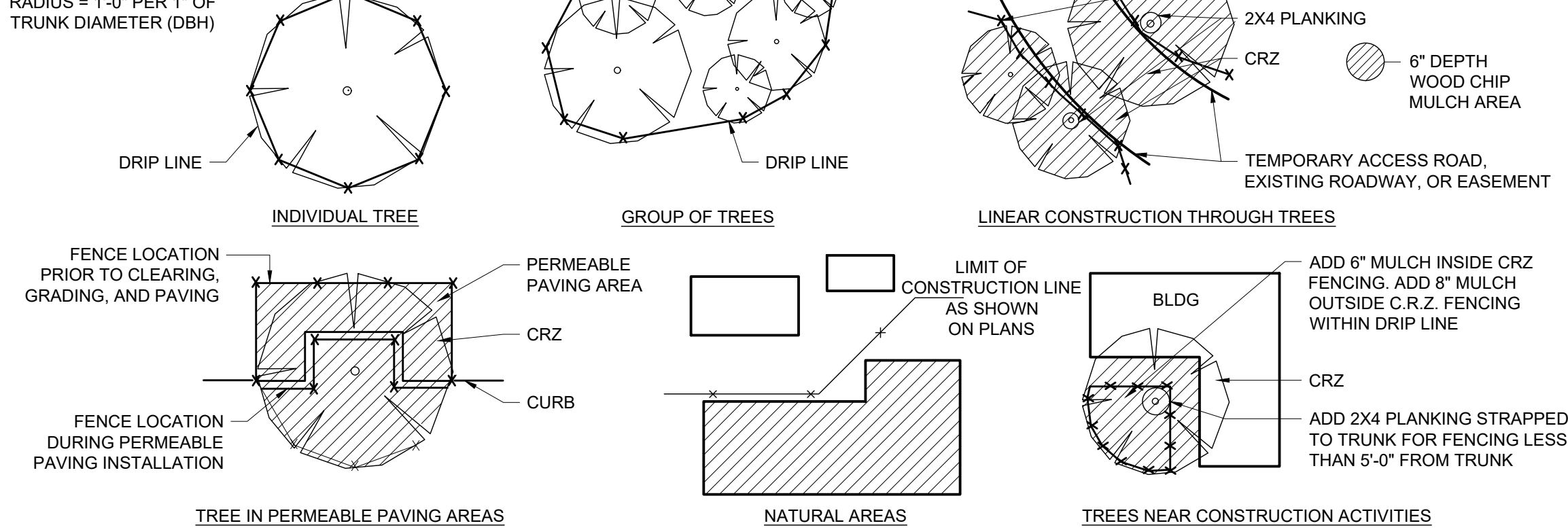


5 LEVEL TWO - TREE PROTECTION & CRITICAL ROOT ZONE FENCING

NTS

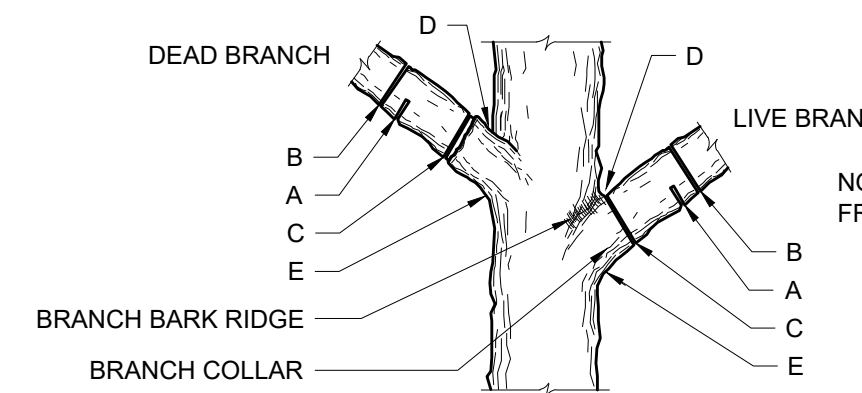
NOTE:

CRITICAL ROOT ZONE (CRZ) RADIUS = 1'-0" PER 1" OF TRUNK DIAMETER (DBH)



PROPER PRUNING FOR BRANCHES 1-1/2\"/>

- ALL PRUNING TO BE COMPLETED BY CERTIFIED ARBORIST.
- A. FIRST CUT - TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
- B. SECOND CUT - TO REDUCE THE WEIGHT OF THE BRANCH.
- C. FINAL CUT - ALLOW FOR HEALING COLLAR, BUT NO STUBS.
- BRANCH RIDGES - PROPERLY INDENT BRANCH RIDGES WHICH ARE SITE FOR DECAY.
- FOR OAKS ONLY: PAINT ALL WOUNDS OR CUTS WITH APPROVED WOUND DRESSING OR PRUNING SEALER WITHIN 5 MINUTES TO PREVENT THE SPREAD OF OAK WILT.
- ALL PRUNING CUTS TO BE PERPENDICULAR TO BRANCH. DO NOT CUT CENTRAL LEADERS. DO NOT PRUNE MORE THAN 25% OF TREE CANOPY.



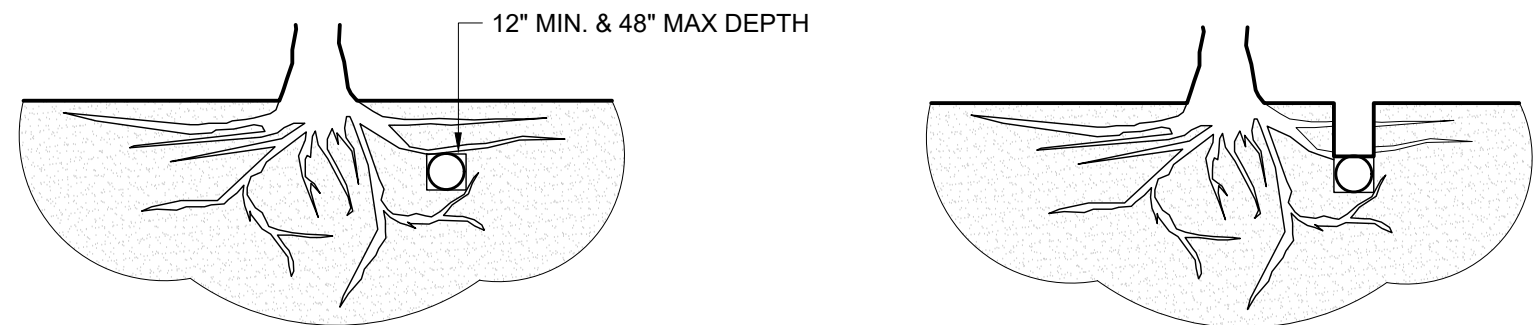
4 LOCATIONS OF TREE PROTECTION & CRITICAL ROOT ZONE FENCING

NTS

NOTES:

TREES THAT ARE MARKED TO BE PRESERVED ON A SITE PLAN AND FOR WHICH UTILITIES MUST PASS THROUGH THEIR ROOT PROTECTION ZONES MAY REQUIRE TUNNELING AS OPPOSED TO OPEN TRENCHES. THE DECISION TO TUNNEL WILL BE DETERMINED ON A CASE BY CASE BASIS BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT.

TUNNELS SHALL BE DUG THROUGH THE ROOT PROTECTION ZONE IN ORDER TO MINIMIZE ROOT DAMAGE.



TUNNEL TO MINIMIZE ROOT DAMAGE AS OPPOSED TO SURFACE DUG TRENCHES IN ROOT PROTECTION ZONE WHEN THE 5'-0" MINIMUM DISTANCE FROM TRUNK CANNOT BE ACHIEVED.

OPEN TRENCHING MAY BE USED IF EXPOSED TREE ROOTS DO NOT EXCEED 1.5" OR IF ROOTS CAN BE BENT BACK. DO NOT CUT ROOTS LARGER THAN 1.5". ASSESSMENT TO BE PROVIDED BY THIRD-PARTY ARBORIST PAID FOR BY CONTRACTOR.

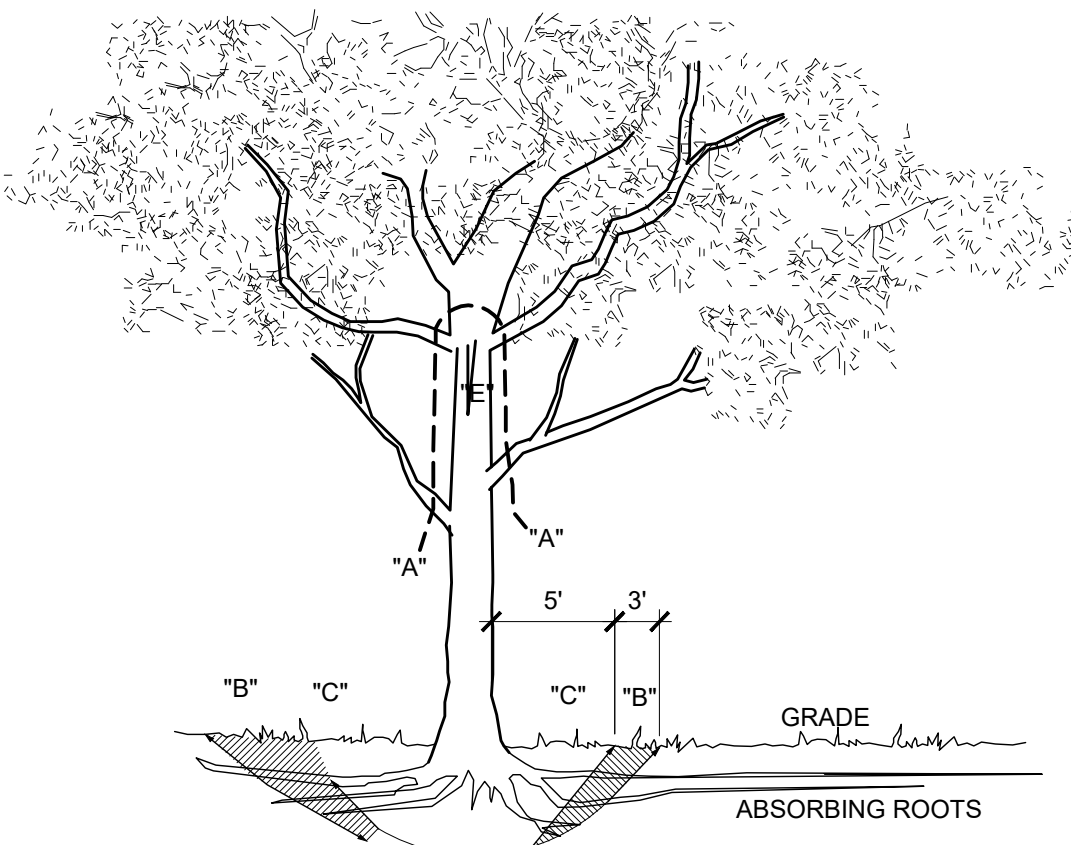
2 BORING THROUGH TREE ROOT ZONE

NTS

NOTES:

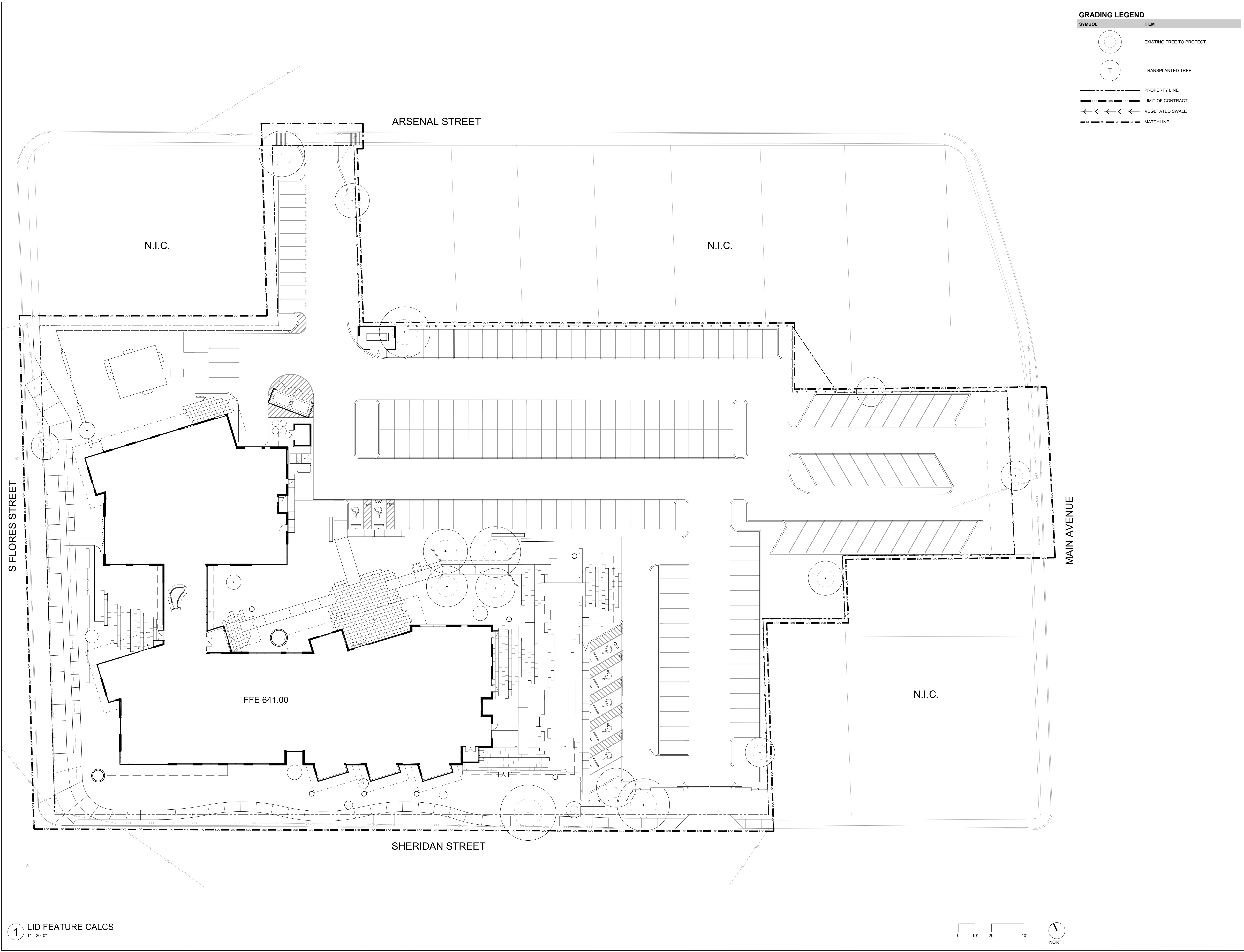
- REMOVE BULKY TREE PARTS "SHRED" AND/OR HAUL SEPARATELY.
- BEGIN EXCAVATION APPROXIMATELY 8'-0" FROM THE TRUNK CUT THRU ANCHOR ROOTS AT AN ANGLE - 3" TO 4" DEEP.
- USING TREE TRUNK AS A LEVER PUSH AT POINT "E" TO REMOVE TREE BOLE AND LARGE FEEDER ROOTS (4" TO 10" IN DIAMETER).
- BACKFILL HOLE AND CLEAN UP.

REFERENCE PLANS AND SPECIFICATIONS FOR BRANCHES AND/OR TRUNKS TO BE STORED ON SITE FOR RE-USE.



1 TREE REMOVAL DIAGRAM

NTS



GRADING LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE

1 LID FEATURE CALCS
1" = 20'-0"



Project No. 22068A

PRELIMINARY

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Date 2024-08-23

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60% CONSTRUCTION DOCUMENTS

L-100A

LID FEATURE CALCS

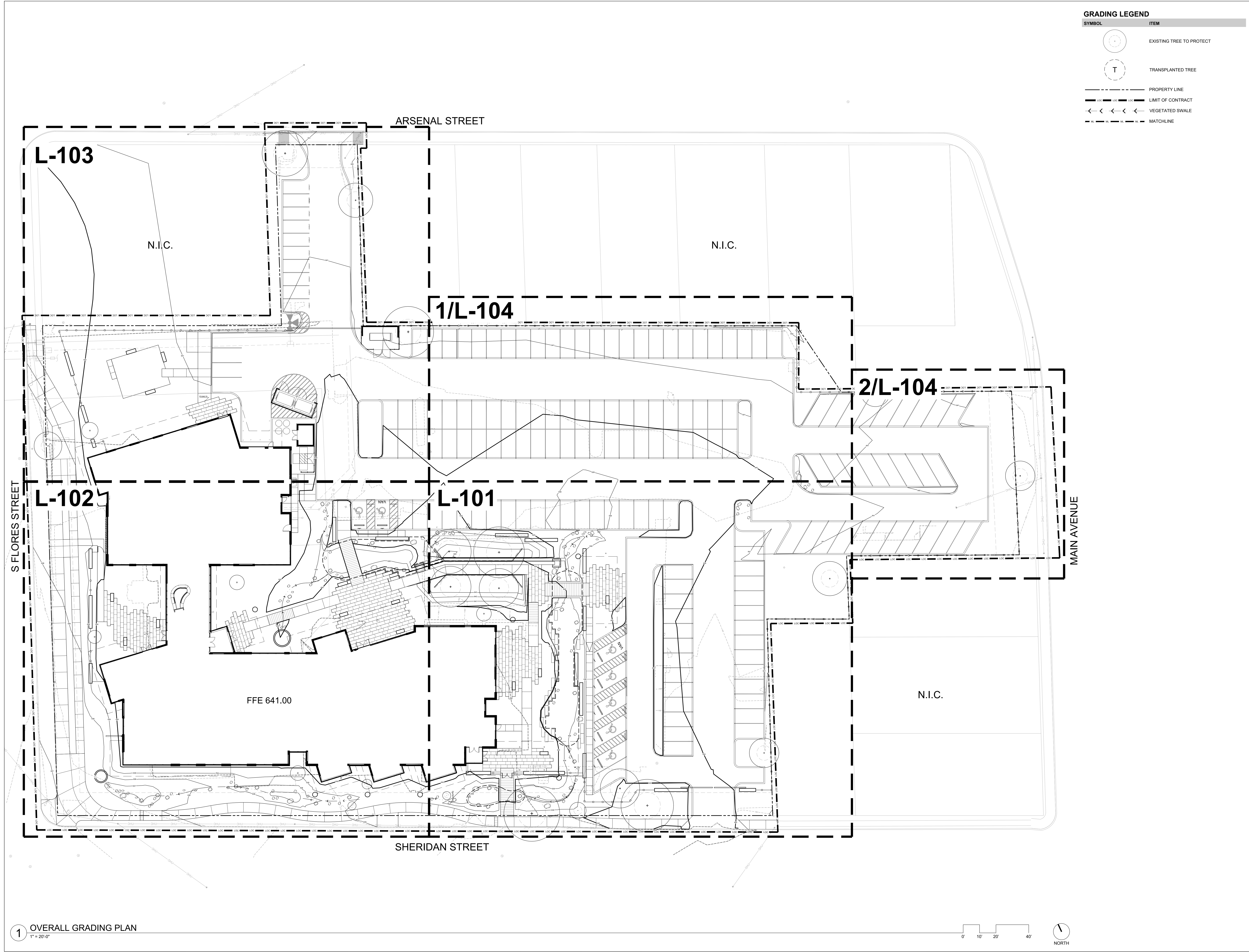
Project Name: _____ Project ID#: _____ Date: _____										
SITES v2 Scorecard										
Estimate points below (key at bottom)										
YES	Y7	N7	NO	CREDIT #	TITLE	CASE / OPTION / THRESHOLD	Possible Points:	POINTS POSSIBLE	POINTS PER CREDIT	
10	0	0	0	1	1: SITE CONTEXT				13	
Y					CONTEXT PL.1	Limit development on farmland Case 1: Sites without farmland soils Case 2: Sites with farmland soils - VSPZ Case 3: Sites with farmland soils - Mitigation				
Y					CONTEXT PL.2	Protect floodplain functions Case 1: Sites without floodplain Case 2: Previously developed and brownfield sites within floodplain Case 3: Greenfield sites within floodplain				
Y					CONTEXT PL.3	Conserve aquatic ecosystems Case 1: Sites without aquatic ecosystems Case 2: Sites with naturally occurring aquatic ecosystems Case 3: Sites with naturally occurring poor quality aquatic ecosystems				
Y					CONTEXT PL.4	Conserve habitats for threatened and endangered species Case 1: Brownfields and previously developed sites Case 2: Greenfield sites				
3					CONTEXT CL.5	Redevelop degraded sites Case 1: Previously developed sites Case 2: Brownfield sites	3 6	3	to 6	
4					CONTEXT CL.6	Locate projects within existing developed areas				
3					CONTEXT CL.7	Connect to multi-modal transit networks Option 1: Pedestrian and bicycle network Option 2: Transit network	2 3	2	to 3	
0	3	0	0	2	2: PRE-DESIGN ASSESSMENT + PLANNING				3	
Y					PRE-DESIGN P2.1	Use an integrative design process				
Y					PRE-DESIGN P2.2	Conduct a pre-design site assessment				
Y					PRE-DESIGN P2.3	Designate and communicate Vegetation and Soil Protection Zones				
3					PRE-DESIGN C2.4	Engage users and stakeholders	3	3		
13	2	0	6	3	3: SITE DESIGN - WATER				23	
Y					WATER PL.1	Manage precipitation on site				
Y					WATER PL.2	Reduce water use for landscape irrigation				
4	2				WATER CL.3	Manage precipitation beyond baseline 80th percentile precipitation event 90th percentile precipitation event 95th percentile precipitation event	4 5 6	4	to 6	
5					WATER CL.4	Reduce outdoor water use Option 1: Reduce outdoor water use Option 2: Significantly reduce outdoor water use Option 3: Eliminate outdoor water use	4 5 6	5	to 6	
4					WATER CL.5	Design functional stormwater features as amenities 50% of stormwater features 100% of stormwater features	4 5	4	to 5	
					6	WATER CL.6	Restore aquatic ecosystems (project must have existing feature) No aquatic ecosystems present on site 30% of the geographic extent 40% of the geographic extent 90% of the geographic extent	4 5 6	4	to 6

Project Name: _____ Project ID#: _____ Date: _____									
SITES v2 Scorecard									
Estimate points below (key at bottom)									
YES	Y7	N7	NO	CREDIT #	TITLE	CASE / OPTION / THRESHOLD	Possible Points:	POINTS POSSIBLE	POINTS PER CREDIT
19	2	0	9	6	6: SITE DESIGN - HUMAN HEALTH + WELL-BEING				30
				3	HHWB CL.1	Protect and maintain cultural and historic places Option 1: Historic buildings, structures, or objects Option 2: Historic or cultural landscapes	2	3	to 3
2					HHWB CL.2	Provide optimum site accessibility, safety, and wayfinding	2	2	
2					HHWB CL.3	Promote equitable site use	2	2	
2					HHWB CL.4	Support mental restoration	2	2	
2					HHWB CL.5	Support physical activity	2	2	
2					HHWB CL.6	Support social connection	2	2	
				4	HHWB CL.7	Provide on-site food production Option 1: Food production Option 2: Food production and regular distribution	3	4	
4					HHWB CL.8	Reduce light pollution	4	4	
4					HHWB CL.9	Encourage fuel efficient and multi-modal transportation	4	4	
2					HHWB CL.10	Minimize exposure to environmental tobacco smoke Option 1: Designate smoke-free zones Option 2: Prohibit smoking on site	1	2	to 2
3					HHWB CL.11	Support local economy	3	3	
11	3	0	0	7	7: CONSTRUCTION				17
Y					CONSTRUCTION P7.1	Communicate and verify sustainable construction practices			
Y					CONSTRUCTION P7.2	Control and retain construction pollutants			
Y					CONSTRUCTION P7.3	Restore soils disturbed during construction			
				3	CONSTRUCTION C7.4	Restore soils disturbed by previous development low point score mid point score high point score	3	4	to 5
4					CONSTRUCTION C7.5	Divert construction and demolition materials from disposal 50th of structural materials + 95th of roads / infrastructure materials 75th of structural materials + 95th of roads / infrastructure materials	3	4	to 4
3					CONSTRUCTION C7.6	Divert reusable vegetation, rocks, and soil from disposal 100th of land-clearing materials retained for use within 50 miles 100th of land-clearing materials retained on site	3	4	to 4
4					CONSTRUCTION C7.7	Protect air quality during construction 50th total run-time hours from Tier 2 or higher engines 50th total run-time hours from Tier 3 or higher engines 50th total run-time hours from Tier 4 or higher engines	2	3	to 4

Project Name: _____ Project ID#: _____ Date: _____									
SITES v2 Scorecard									
Estimate points below (key at bottom)									
YES	Y7	N7	NO	CREDIT #	TITLE	CASE / OPTION / THRESHOLD	Possible Points:	POINTS POSSIBLE	POINTS PER CREDIT
14	2	0	16	4	4: SITE DESIGN - SOIL + VEGETATION				40
Y					SOIL-VEG PL.1	Create and communicate a soil management plan Case 1: No invasive plants found on site Case 2: Invasive plants identified on site			
Y					SOIL-VEG PL.2	Control and manage invasive plants			
Y					SOIL-VEG PL.3	Use appropriate plants			
				6	SOIL-VEG CL.4	Conserve healthy soils and appropriate vegetation (project must have existing feature) No healthy soils and/or appropriate vegetation present on site 50% of the site's existing vegetated area 75% of the site's existing vegetated area 95% of the site's existing vegetated area	4	5	to 6
4					SOIL-VEG CL.5	Conserve special status vegetation (project must have existing feature) 20% total native plant score 40% total native plant score 60% total native plant score	4	4	
3					SOIL-VEG CL.6	Conserve and use native plants 20% total native plant community score 40% total native plant community score 60% total native plant community score	3	6	to 6
				6	SOIL-VEG CL.7	Conserve and restore native plant communities 20% total native plant community score 40% total native plant community score 60% total native plant community score	5	6	to 6
3					SOIL-VEG CL.8	Optimize biomass minimal point score low point score mid point score high point score	1	3	to 6
4					SOIL-VEG CL.9	Reduce urban heat island effects No buildings present on site Option 1: Reduce energy use - 5% reduction Option 2: Reduce energy use - 7% reduction Option 3: Provide shade structures - 30% shaded Option 2: Provide shade structures - 40% shaded Option 3: Provide a windbreak - one row Option 3: Provide a windbreak - two or more rows	4	4	
				2	SOIL-VEG CL.10	Use vegetation to minimize building energy use (project must have building on site) Option 1: Reduce energy use - 7% reduction Option 2: Provide shade structures - 30% shaded Option 3: Provide a windbreak - one row Option 3: Provide a windbreak - two or more rows	2	1	to 4
				4	SOIL-VEG CL.11	Reduce the risk of catastrophic wildfire (project must be located in fire-prone area) Project is in a fire-prone area Project is in a fire-prone area	4	4	

Project Name: _____					Project ID#: _____		Date: _____		
SITES v2 Scorecard									
Estimate points below (key at bottom)									
YES	Y7	N7	NO	PREFERENTIAL CREDIT #	TITLE	CASE / OPTION / THRESHOLD	Possible Points:	POINTS POSSIBLE	POINTS PER CREDIT
7	10	0	0	8	8: OPERATIONS + MAINTENANCE				22
					O+M PL.1	Plan for sustainable site maintenance			
Y					O+M PL.2	Provide for storage and collection of recyclables			
3					O+M CL.3	Recycle organic matter 100% of vegetation trimmings recycled / composted off site within 50 miles 100% of vegetation trimmings recycled / composted on site 100% of vegetation trimmings + food waste recycled / composted on site	3 4 4	3 to 5	
4					O+M CL.4	Minimize pesticide and fertilizer use Option 1: Plant health care plan Option 2: Best management practices for plant health care	4 5	4 to 5	
2					O+M CL.5	Reduce outdoor energy consumption 30% reduction from baseline energy use for outdoor equipment 60% reduction from baseline energy use for outdoor equipment 90% reduction from baseline energy use for outdoor equipment	2 3 4	2 to 4	
4					O+M CL.6	Use renewable sources for landscape electricity needs Option 1: On-site - 50% annual outdoor site electricity Option 1: On-site - 100% annual outdoor site electricity Option 2: Green power - 50% annual outdoor site electricity Option 2: Green power - 100% annual outdoor site electricity	3 4 3 4	3 to 4	
4					O+M CL.7	Protect air quality during landscape maintenance Option 1: Scheduled maintenance Option 2: Low-emitting equipment Option 3: Manual or electric powered maintenance equipment	2 3 4	2 to 4	
11	0	0	0	9	9: EDUCATION + PERFORMANCE MONITORING				11
4					EDUCATION CL.1	Promote sustainability awareness and education Option 1: Educational and interpretive elements Option 2: Additional education	3 4	3 to 4	
3					EDUCATION CL.2	Develop and communicate a case study	3	3	
4					EDUCATION CL.3	Plan to monitor and report site performance	4	4	
9	0	0	0	10	10: INNOVATION OR EXEMPLARY PERFORMANCE				9
9					INNOVATION CL.1 (BONUS POINTS)	Innovation or exemplary performance Option 1: Exemplary performance Option 2: Innovation outside the SITES v2 Rating System	3 3	3 to 9	
YES	Y7	N7	NO	104	31	0	34	TOTAL ESTIMATED POINTS	
								Total Possible Points:	200
KEY									
SITES Certification levels						Points			
CERTIFIED						70			
SILVER						85			
GOLD						100			
PLATINUM						115			

Project Name: _____ Project ID#: _____ Date: _____									
SITES v2 Scorecard									
Estimate points below (key at bottom)									
YES	Y7	N7	NO	CREDIT #	TITLE	CASE / OPTION / THRESHOLD	Possible Points:	POINTS POSSIBLE	POINTS PER CREDIT
10	9	0	3	5	5: SITE DESIGN - MATERIALS SELECTION				41
Y					MATERIALS PL.1	Eliminate the use of wood from threatened tree species No structures or paving present on site 10% of the total existing built surface area 20% of the total existing built surface area 30% of the total existing built surface area			
2				2	MATERIALS CL.2	Maintain on-site structures and paving (project must have existing feature) 10% of total materials cost, excluding plants, rocks, and soils 20% of total materials cost, excluding plants, rocks, and soils 30% of total materials cost, excluding plants, rocks, and soils	2	3	to 4
3				1	MATERIALS CL.3	Design for adaptability and disassembly 30% of total materials cost, excluding plants, rocks, and soils 60% of total materials cost, excluding plants, rocks, and soils 10% of total materials cost, excluding soils 20% of total materials cost, excluding soils	3	4	to 4
4					MATERIALS CL.4	Use salvaged materials and plants 20% of total materials cost, excluding plants and soils 40% of total materials cost, excluding plants and soils	3	4	to 4
3					MATERIALS CL.5	Use recycled content materials 30% of total materials cost 60% of total materials cost 90% of total materials cost	3	4	to 4
3					MATERIALS CL.6	Use regional materials 30% of total materials cost 60% of total materials cost 90% of total materials cost	3	5	to 5
1					MATERIALS CL.7	Support responsible extraction of raw materials Option 1: Advocate for sustainable extraction of raw materials Option 2: Support suppliers that disclose environmental data Option 3: Support suppliers that meet extraction standards	1	5	to 5
1					MATERIALS CL.8	Support transparency and safer chemistry Option 1: Advocate for transparency and safer chemistry Option 2: Support manufacturers that disclose chemical data Option 3: Support manufacturers with chemical hazard assessments	1	5	to 5
1					MATERIALS CL.9	Support sustainability in materials manufacturing Option 1: Advocate for sustainable materials manufacturing Option 2: Support manufacturers that disclose data on sustainable practices Option 3: Support manufacturers that achieve sustainable practices	1	5	to 5
1					MATERIALS CL.10	Support sustainability in plant production Option 1: Advocate for sustainable plant production Option 2: Support producers that disclose data on sustainable practices Option 3: Support producers that achieve sustainable practices	1	5	to 5



GRADING LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE

Project No. 22068A

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revision date

LAKE FLATO

RVK

ARCHITECTURE

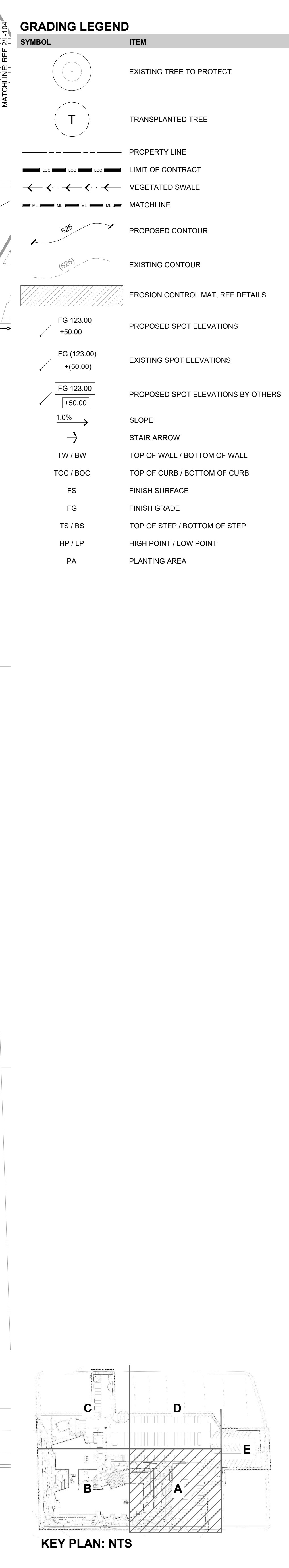
2002 N. Saint Mary's St.
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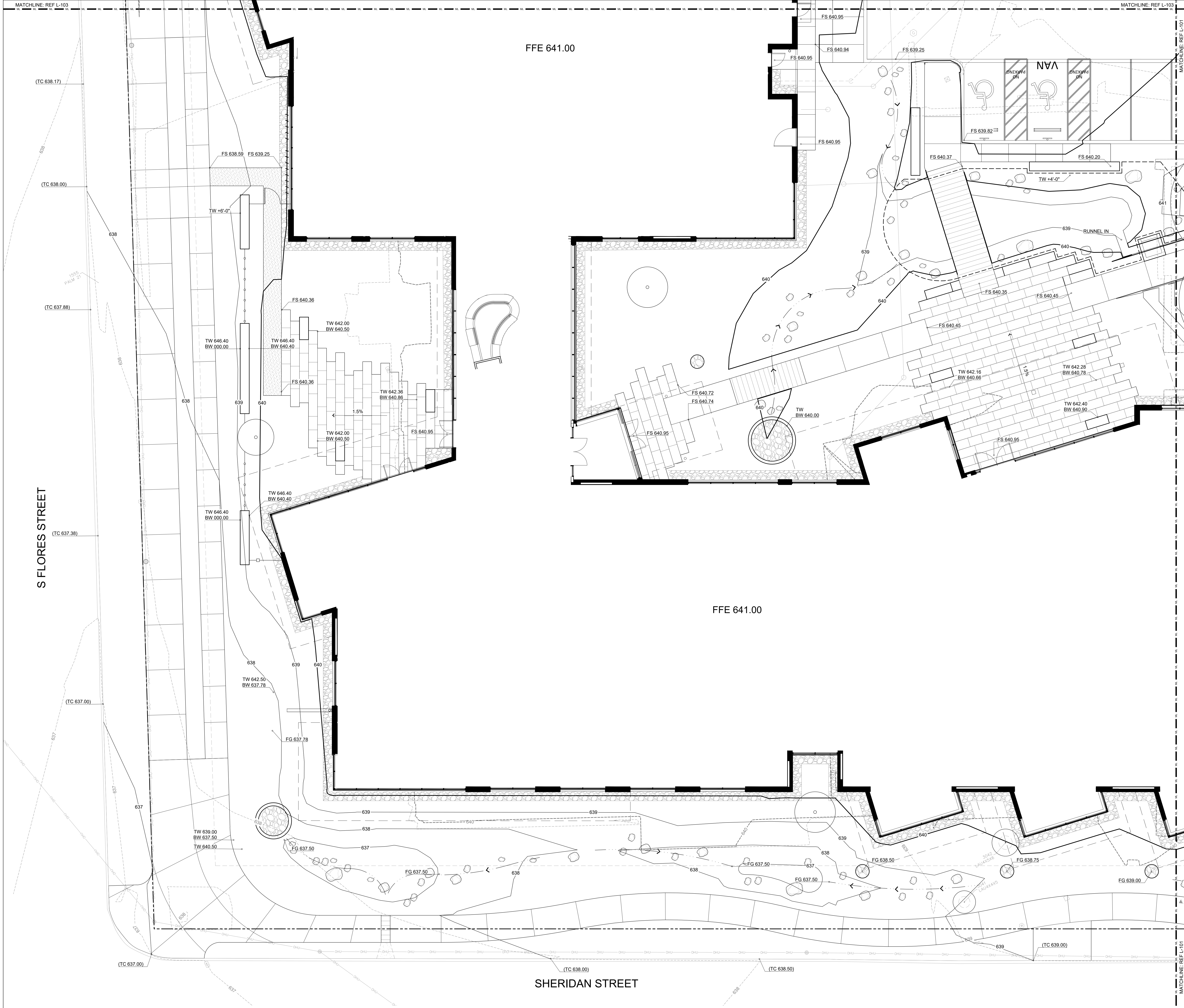
60% CONSTRUCTION
DOCUMENTS

L-100C

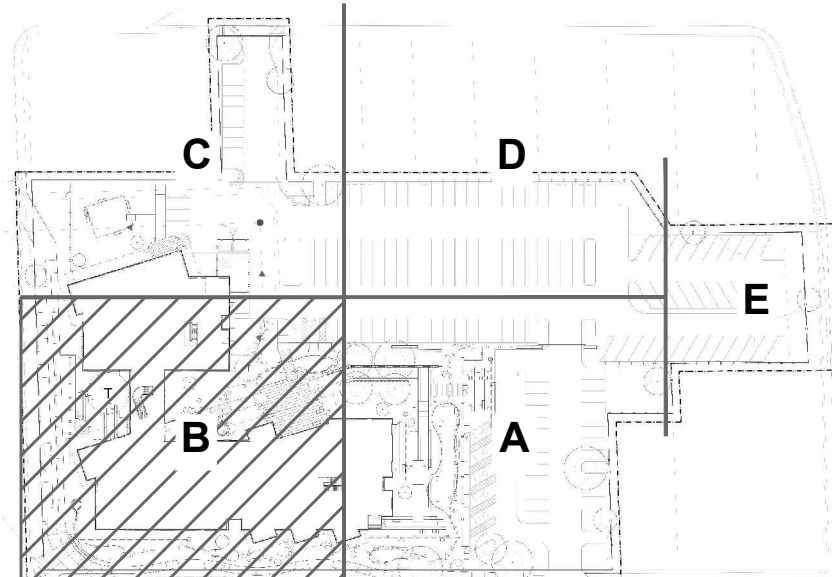
OVERALL GRADING
PLAN

1 OVERALL GRADING PLAN
1" = 20'-0"





GRADING LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE
	PROPOSED CONTOUR
	EXISTING CONTOUR
	EROSION CONTROL MAT, REF DETAILS
	PROPOSED SPOT ELEVATIONS
	EXISTING SPOT ELEVATIONS
	PROPOSED SPOT ELEVATIONS BY OTHERS
	SLOPE
	STAIR ARROW
	TOP OF WALL / BOTTOM OF WALL
	TOP OF CURB / BOTTOM OF CURB
	FINISH SURFACE
	FINISH GRADE
	TOP OF STEP / BOTTOM OF STEP
	HIGH POINT / LOW POINT
	PLANTING AREA



1 GRADING PLAN B
1/8" = 1'-0"



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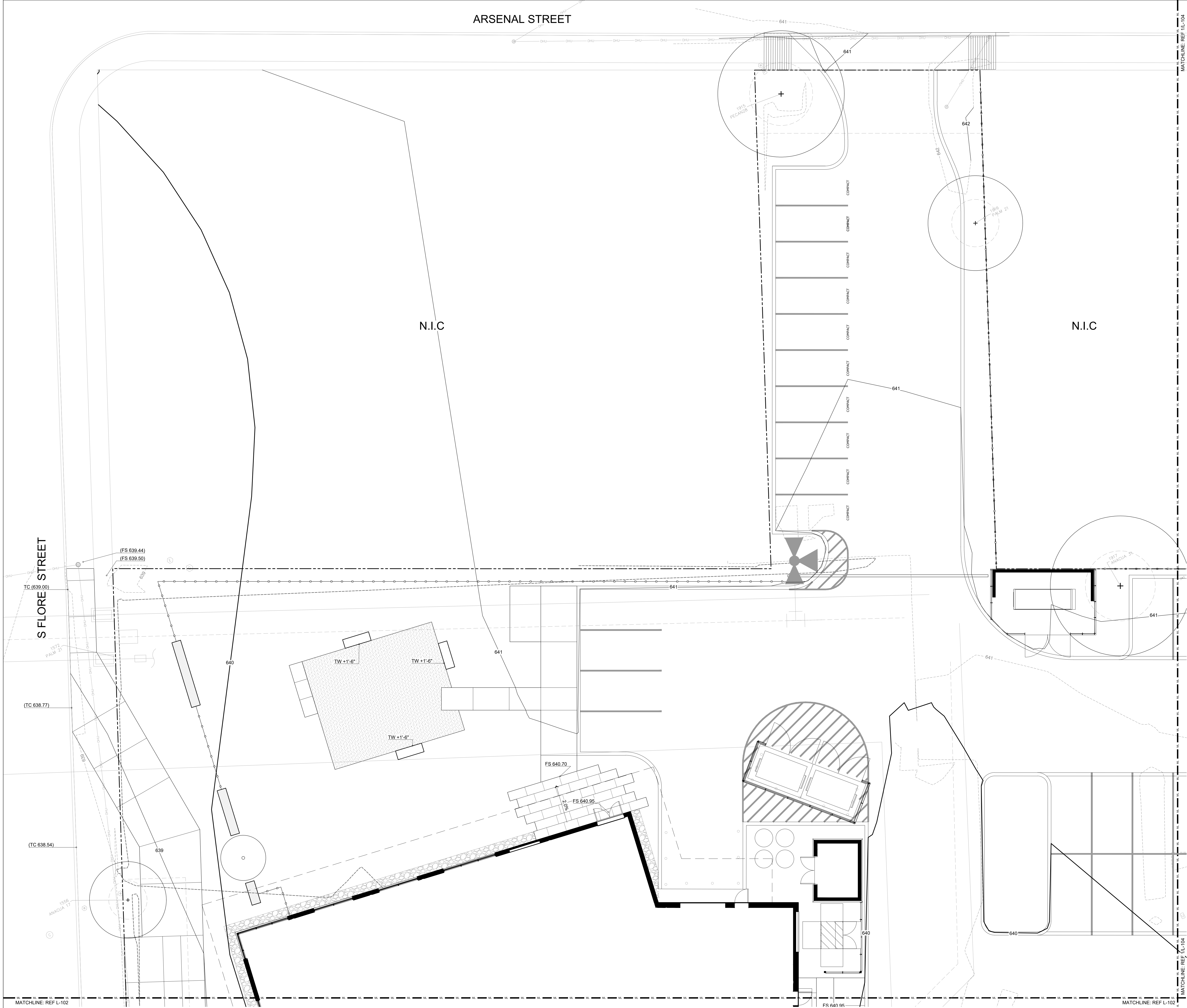
1 1/8" = 1'-0"

LAKE FLATO
RVK
ARCHITECTURE

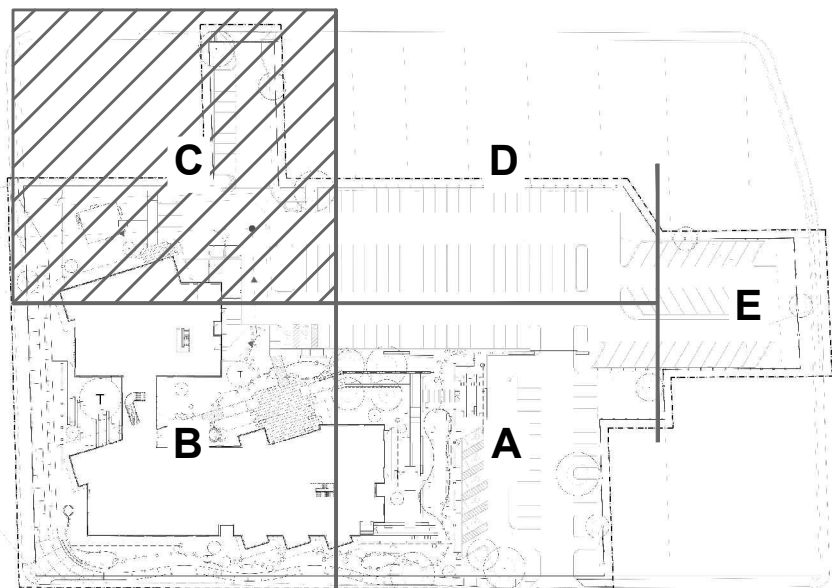
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DOCUMENTS

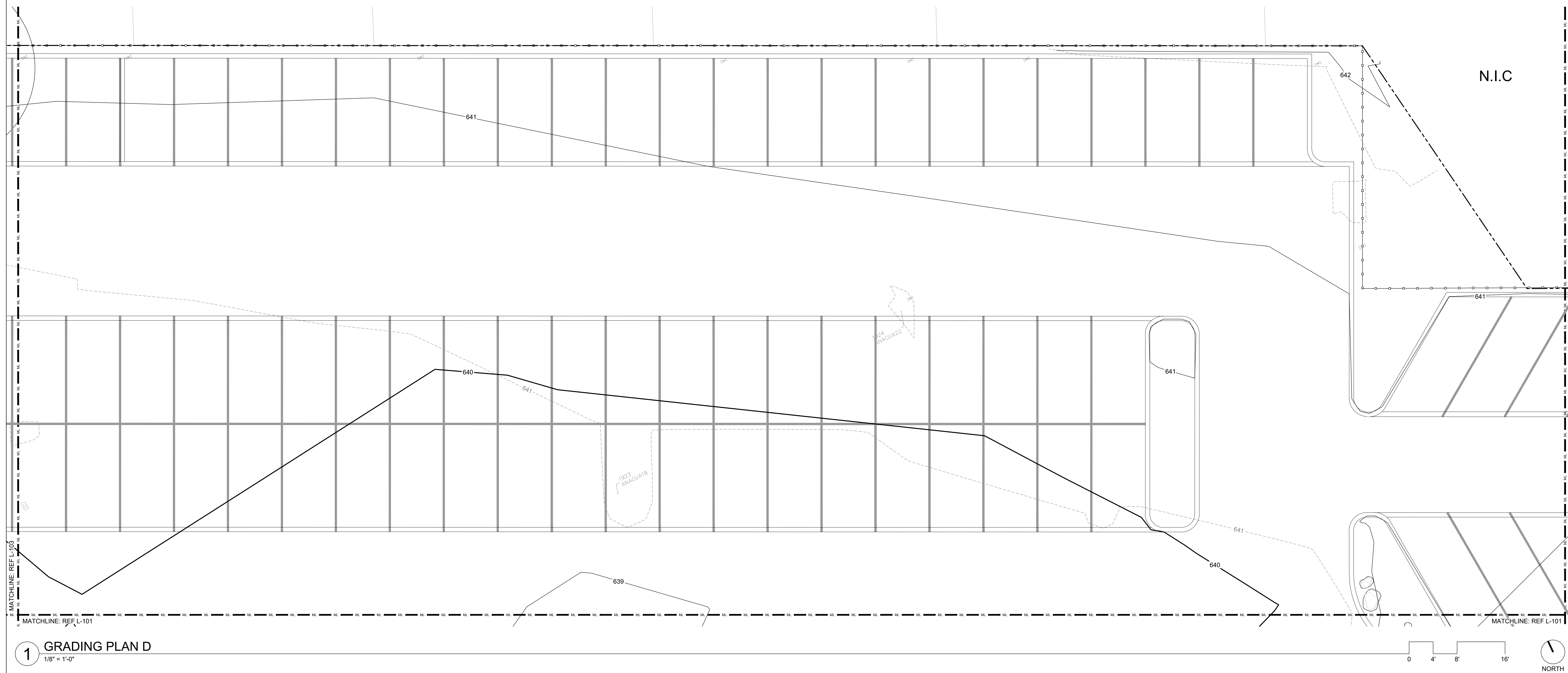
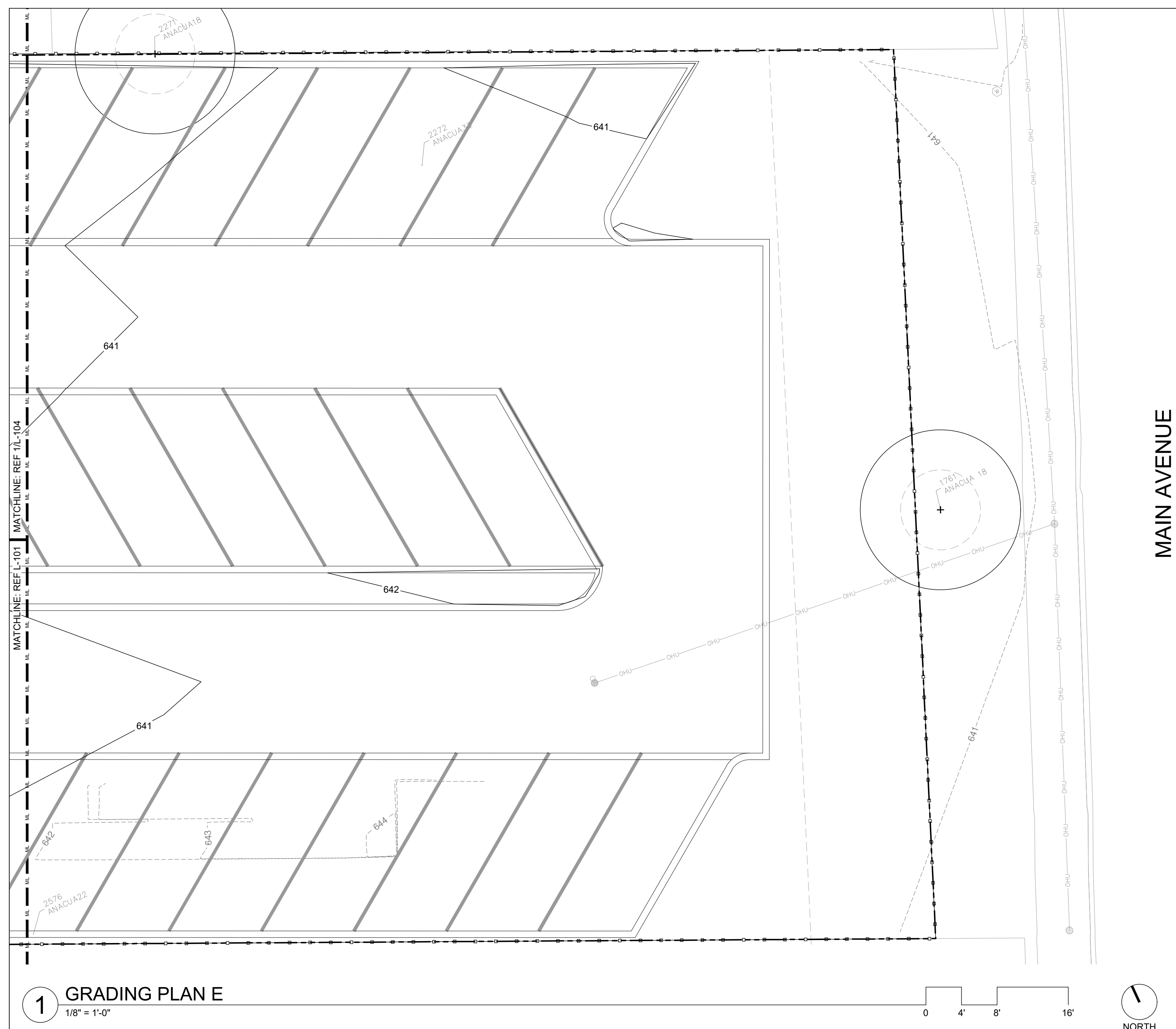
L-102
GRADING PLAN B



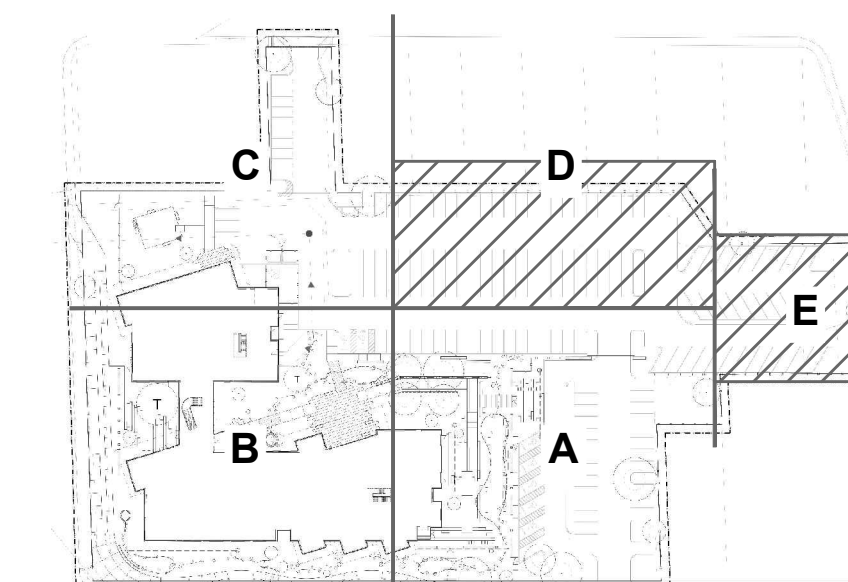
GRADING LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE
	PROPOSED CONTOUR
	EXISTING CONTOUR
	EROSION CONTROL MAT, REF DETAILS
	PROPOSED SPOT ELEVATIONS
	EXISTING SPOT ELEVATIONS
	PROPOSED SPOT ELEVATIONS BY OTHERS
	SLOPE
	STAIR ARROW
	TOP OF WALL / BOTTOM OF WALL
	TOP OF CURB / BOTTOM OF CURB
	FINISH SURFACE
	FINISH GRADE
	TOP OF STEP / BOTTOM OF STEP
	HIGH POINT / LOW POINT
	PLANTING AREA



1 GRADING PLAN C
1/8" = 1'-0"

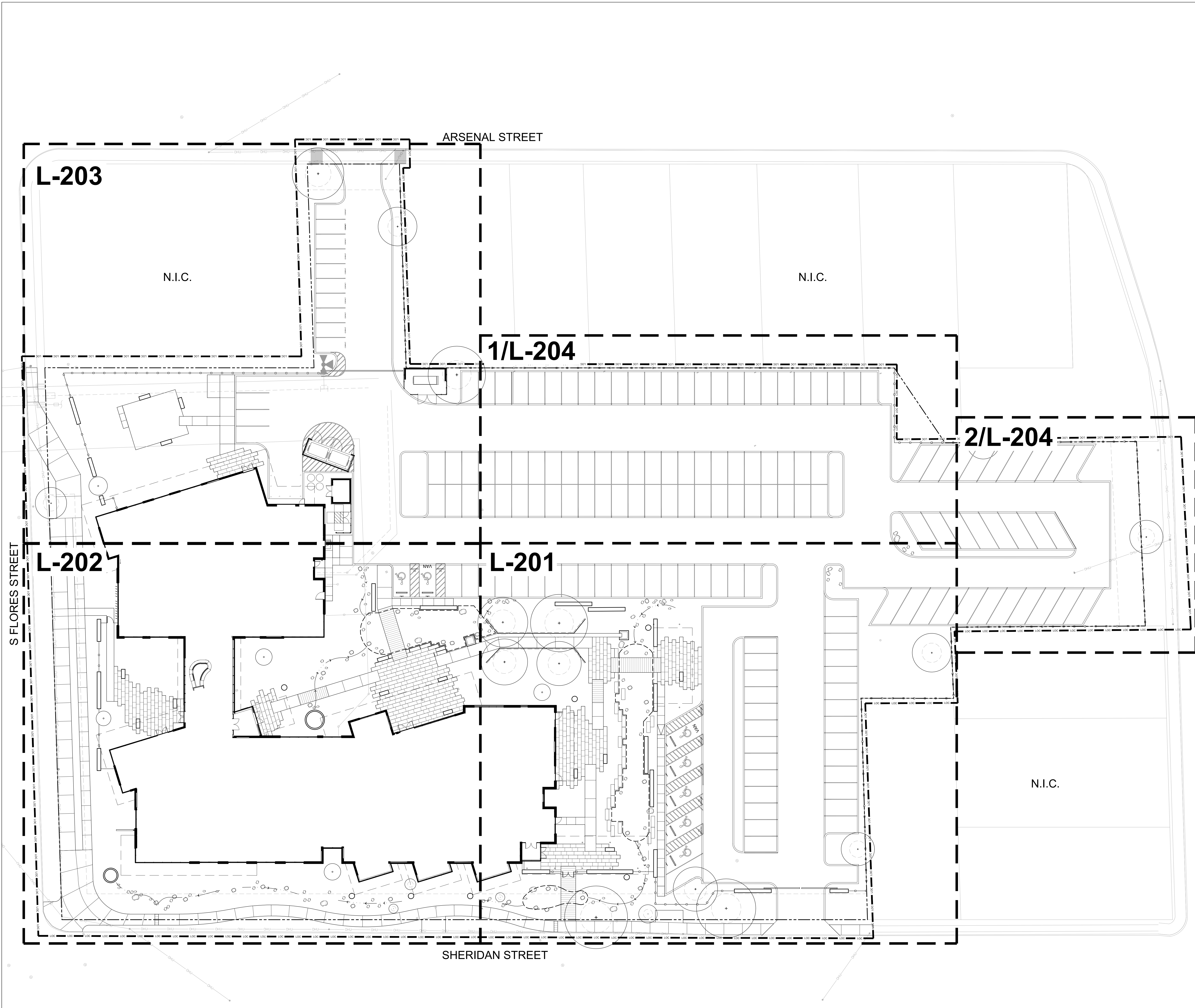


GRADING LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE
	PROPOSED CONTOUR
	EXISTING CONTOUR
	EROSION CONTROL MAT. REF DETAILS
	PROPOSED SPOT ELEVATIONS
	EXISTING SPOT ELEVATIONS
	PROPOSED SPOT ELEVATIONS BY OTHERS
	SLOPE
	STAIR ARROW
TW / BW	TOP OF WALL / BOTTOM OF WALL
TOT / BOT	TOP OF CURB / BOTTOM OF CURB
FS	FINISH SURFACE
FG	FINISH GRADE
TS / BS	TOP OF STEP / BOTTOM OF STEP
HP / LP	HIGH POINT / LOW POINT
PA	PLANTING AREA



MATERIALS SCHEDULE

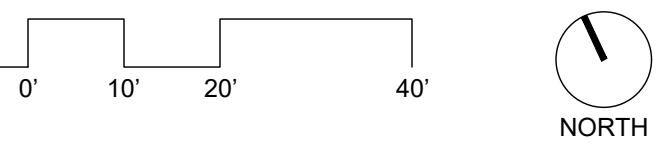
#	ITEM	MATERIAL	COLOR	FINISH	CONTACT	REMARKS
1.0 PAVING, CURBS, STAIRS						
1.1	CONCRETE PAVING	C.I.P. CONCRETE W/ DECORATIVE FINISH	STD. GRAY	TOP-CAST DECORATIVE SURFACE RETARDANT, #15 YELLOW	GCP APPLIED TECHNOLOGY BILL MCHUGH: 678.427.992	PROVIDE 5'X5' MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
1.2	CUT STONE PAVING	LUEDERS LIMESTONE PAVERS, 2'-0"W X 4'-0"L X 2"TH., ON CONCRETE BASE	BUFF	CHATTED TOP, SAWN ALL OTHER SIDES	CONTINENTAL CUT STONE OR APPROVED EQUAL	PROVIDE SAMPLE AND 10'X10' MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
1.3	PERMEABLE PAVERS	CAST STONE PAVERS, ECO-CITYLOCK 4X12" 100MM	50/50 BLEND, ANTIQUE PEWTER & ANTIQUE SAVANNAH	STANDARD PER MFR	KEYSTONE HARDSCAPES 512.558.7283 OR APPROVED EQUAL	PROVIDE SAMPLES AND 5'X5' MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
1.4	STANDARD PAVERS	CAST STONE PAVERS, CITYLOCK 4X12" 100MM, SET ON TYP. AGGREGATE BASE (TO MATCH PERMEABLE PAVERS)	50/50 BLEND, ANTIQUE PEWTER & ANTIQUE SAVANNAH	STANDARD PER MFR	KEYSTONE HARDSCAPES 512.558.7283 OR APPROVED EQUAL	PROVIDE SAMPLES AND 5'X5' MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
1.5	STABILIZED DECOMPOSED GRANITE	1/4" MINUS DECOMPOSED GRANITE WITH STALOCK STABILIZER BINDER (STABILIZER SOLUTIONS)	COLOR TO BE SELECTED BY LA	NATURAL	STABILIZER SOLUTIONS 800.336.2468	PROVIDE 5'X5' MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
1.6	ASPHALT PAVING	REF CIVIL				
1.7	CONCRETE HEADER CURB	REF CIVIL		TOP-CAST DECORATIVE SURFACE RETARDANT, #15 YELLOW	GCP APPLIED TECHNOLOGY BILL MCHUGH: 678.427.992	PROVIDE 5 LONG MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
2.0 SITE METALS						
2.1	STEEL BOARDWALK	STEEL TREAD PLANK, REF DETAIL	NATURAL	NATURAL	MCMCHOLS, PRECISION METALS, OR APPROVED EQUAL	PROVIDE SHOP DRAWINGS AND FULL WIDTH X 5' LONG MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
2.2	STEEL FENCE A. STEEL MESH INFILL B. WOOD INFILL	A. WOVEN WIRE MESH 2"X2" OPENING, 3/16" (7 GAUGE), LOCK CRIMP B. CEDAR BOARD, VARYING HEIGHTS, REF. DETAIL	A. NATURAL B. NATURAL	A. NATURAL B. NATURAL	A. MCMCHOLS, PRECISION METALS, OR APPROVED EQUAL B. LOCAL SOURCE	PROVIDE SHOP DRAWINGS AND 5' L MOCK-UP OF BOTH FENCE TYPES FOR LANDSCAPE ARCHITECT APPROVAL
2.3	STEEL GATE A. PEDESTRIAN B. VEHICULAR SLIDING	A. MATCH STEEL FENCE, REF DETAILS B. WOVEN WIRE MESH W/ GATE OPERATOR, REF. DETAILS	NATURAL	COAT STEEL WITH BOILED LINSEED OIL	MCMCHOLS, PRECISION METALS, OR APPROVED EQUAL	PROVIDE SHOP DRAWINGS AND MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
2.4	STEEL EDGING	1/4" X 4" CONTINUOUS STEEL PLATE WITH #4 REBAR STAKES @ 36" OC (MINIMUM 12" EMBED)	NATURAL STEEL	NATURAL	LOCAL SOURCE	PROVIDE SHOP DRAWINGS AND SAMPLES FOR LANDSCAPE ARCHITECT APPROVAL
3.0 SITE WALLS						
3.1	STONE GARDEN WALLS	STONE VENEER W/ CMU CORE & CIP CONCRETE FOOTING	BUFF STONE	NATURAL	CONTINENTAL CUT STONE OR APPROVED EQUAL	PROVIDE SAMPLES, SHOP DRAWINGS, AND 5'L X FULL HEIGHT MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
3.2	QUARRY BLOCK SEATWALL	LUEDERS LIMESTONE BLOCK, SIZE: 2'W X 2'H X 6'L U.O.N.	BUFF	SAWN TOPS, BOTTOMS, AND ENDS; ROUGHBACK FRONT AND BACK FACES	CONTINENTAL CUT STONE OR APPROVED EQUAL	PROVIDE SAMPLE FOR LANDSCAPE ARCHITECT APPROVAL
3.3	QUARRY BLOCK @ RETENTION BASINS	LUEDERS LIMESTONE BLOCK, SIZE: 2'W X 2'H X 6'L U.O.N.	BUFF	NATURAL FACE	CONTINENTAL CUT STONE OR APPROVED EQUAL	
3.4	STEEL BLADE WALL	1/2" TH. NATURAL STEEL BLADE WALL	NATURAL	NATURAL		PROVIDE SHOP DRAWINGS, AND 5'L X FULL HEIGHT MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
3.5	BOULDER STABILIZED SLOPE	NATURAL BOULDERS, 3'-0"-8'-0" IN SIZE, REF. PLANS	NATURAL	NATURAL CLEFT, NO SPLITFACE, NO BROKEN OR MILLED EDGES	LOCAL SOURCE	PROVIDE SAMPLES AND MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
3.6	ARTIST SEATWALL	CIP CONCRETE BANCO SEATWALL	TBD	TBD		ART INSTALLATION TO BE COORDINATED BY SAN ANTONIO RIVER FOUNDATION
4.0 DRAINAGE & WATER FEATURES						
4.1	RAINWATER STORAGE TANK	CORRUGATED STEEL ABOVE-GROUND WATER TANK, REF. ARCH.				
4.2	STORMWATER CATCHMENT BASIN A. COURTYARD B. SOUTH FLORES STREET	CIP CONCRETE BASIN, SIZES VARY, REF. DETAIL & PLANS	STD. GRAY	4" VERTICAL BOARD-FORMED	LOCAL SOURCE	PROVIDE MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
4.3	STEEL RUNNEL	1/2" TH. NATURAL STEEL	NATURAL			
4.4	RAIN CHAIN CATCHMENT BASIN A. TYPICAL B. AT STREETScape	REF DETAILS; SCREENED & WASHED 4-8" LLANO RIVER ROCK	NATURAL	COAT STEEL WITH BOILED LINSEED OIL	LOCAL SOURCE	PROVIDE FULL SCALE MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL PRIOR TO CONSTRUCTION; WATERPROOF ALL STEEL BELOW GRADE (COAL TAR EPOXY)
4.5	BIORETENTION AREA	REF. DETAIL FOR SOIL DEPTHS, VEG SWALE FOR TOPDRESSING				PROVIDE SAMPLES AND MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
4.6	CURB BUMP OUT	REF. BIORETENTION AREA				
4.7	CURB INLET	IRON AGE DESIGNS' CURB INLET SYSTEM' 18" WIDTH	NATURAL	CAST IRON	IRON AGE DESIGNS, 877.418.3568	PROVIDE SHOP DRAWINGS AND MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
4.8	SWALE TOPDRESSING	TOP DRESSING: 2"-6" LLANO RIVER ROCK; REF DETAILS	NATURAL	NATURAL	LOCAL SOURCE	PROVIDE SAMPLES AND MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
4.9	LIMESTONE BOULDER	NATURAL BOULDERS, 3'-0"-8'-0" IN SIZE, REF. PLANS	NATURAL	NATURAL CLEFT, NO SPLITFACE, NO BROKEN OR MILLED EDGES	LOCAL SOURCE	PROVIDE SAMPLES FOR LANDSCAPE ARCHITECT APPROVAL
4.10	GRAVEL BAND	6" LLANO RIVER ROCK	NATURAL	NATURAL	LOCAL SOURCE	PROVIDE SAMPLES FOR LANDSCAPE ARCHITECT APPROVAL
5.0 MISC						
5.1	MOVEABLE TABLE & CHAIRS	VESTRE 'MUNCH' STEEL ROUND TABLE AND STACKABLE CAFE CHAIRS	TBD	TBD	VESTRE, 512.554.1041	QUANTITY: 20 TABLES & 65 CHAIRS
5.2	BIKE RACK	MADRAX U-BIKE RACK, IN-GROUND, 1-7/8" TUBE; MODEL #U190-IG (SF)	STAINLESS STEEL	STAINLESS STEEL	MADRAX, 800.448.7931	PROVIDE SHOP DRAWINGS AND MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL
5.3	CUSTOM ADA PARKING SIGNAGE	CUSTOM SIGNAGE, REF. DETAIL				PROVIDE SHOP DRAWINGS FOR LANDSCAPE ARCHITECT APPROVAL
5.4	INTERPRETIVE SIGNAGE	STEEL BLADE SIGNS W/ ALUMINUM FULL-COLOR GRAPHIC PANELS	TBD	TBD	F2DS SIGNAGE	PROVIDE 6 EDUCATIONAL/ INTERPRETIVE SIGNS, AND 6 ARCHITECTURAL/ WALL-MOUNTED WAYFINDING SIGNS



SYMBOLS LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE
	PA

MATERIALS LEGEND			
SYMBOL	#	ITEM	REF.
1.0 PAVING, CURBS			
	1.1	CONCRETE PAVING	1-7 / L-500
	1.2	CUT STONE PAVING	8 / L-500
	1.3	PERMEABLE PAVERS	9 / L-500
	1.4	STANDARD PAVERS	
	1.5	STABILIZED DECOMPOSED GRANITE	11 / L-500
	1.6	ASPHALT PAVING	REF. CIVIL
	1.7	CONCRETE HEADER CURB	REF. CIVIL
2.0 SITE METALS			
	2.1	STEEL BOARDWALK	12 / L-500
	2.2	STEEL FENCE	
		A. STEEL MESH INFILL	2-3.5 / L-501
		B. WOOD INFILL	
	2.3	STEEL GATE	
		A. PEDESTRIAN	1,4,6 / L-501
		B. VEHICULAR SLIDING	
	2.4	STEEL EDGING	13 / L-500
3.0 SITE WALLS			
	3.1	STONE GARDEN WALLS	1-2 / L-502
	3.2	QUARRY BLOCK SEATWALL	3 / L-502
	3.3	QUARRY BLOCK @ RETENTION BASINS	4 / L-502
	3.4	STEEL BLADE WALL	5 / L-502
	3.5	BOULDER STABILIZED SLOPE	6 / L-502
	3.6	ARTIST SEATWALL	7 / L-502
4.0 DRAINAGE FEATURES			
	4.1	RAINWATER STORAGE TANK	REF. ARCH
	4.2	STORMWATER CATCHMENT BASIN	
		A. COURTYARD	1 / L-503
		B. S FLORES STREET	
	4.3	STEEL RUNNEL	2 / L-503
	4.4	RAIN CHAIN CATCHMENT BASIN	
		A. TYPICAL	3-4 / L-503
		B. AT STREETSCAPE	
	4.5	BIORETENTION AREA	6-7 / L-503
	4.6	CURB BUMP OUT	8 / L-503
	4.7	CURB INLET	
	4.8	SWALE TOPDRESSING	7 / L-503
	4.9	LIMESTONE BOULDER	8 / L-503
	4.10	GRAVEL BAND	
5.0 MISC			
	5.1	MOVEABLE TABLE & CHAIRS	
	5.2	BIKE RACK	1 / L-504
	5.3	CUSTOM ADA PARKING SIGNAGE	2 / L-504
	5.4	INTERPRETIVE SIGNAGE	

1 OVERALL HARDSCAPE PLAN
1" = 20'-0"



Project No. 22068A

PRELIMINARY
This design document is
incomplete and may not be
used for regulatory approval,
permitting, or construction.

Date 2024-08-23

TEN EYCK

LANDSCAPE ARCHITECTS

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AUSTIN, TEXAS 78702
512.813.9990 P
www.teneyckla.com

San Antonio River Authority

SARA Sheridan Campus

201 W Sheridan St
San Antonio, TX
78204

revision date

LAKE FLATO

RVK

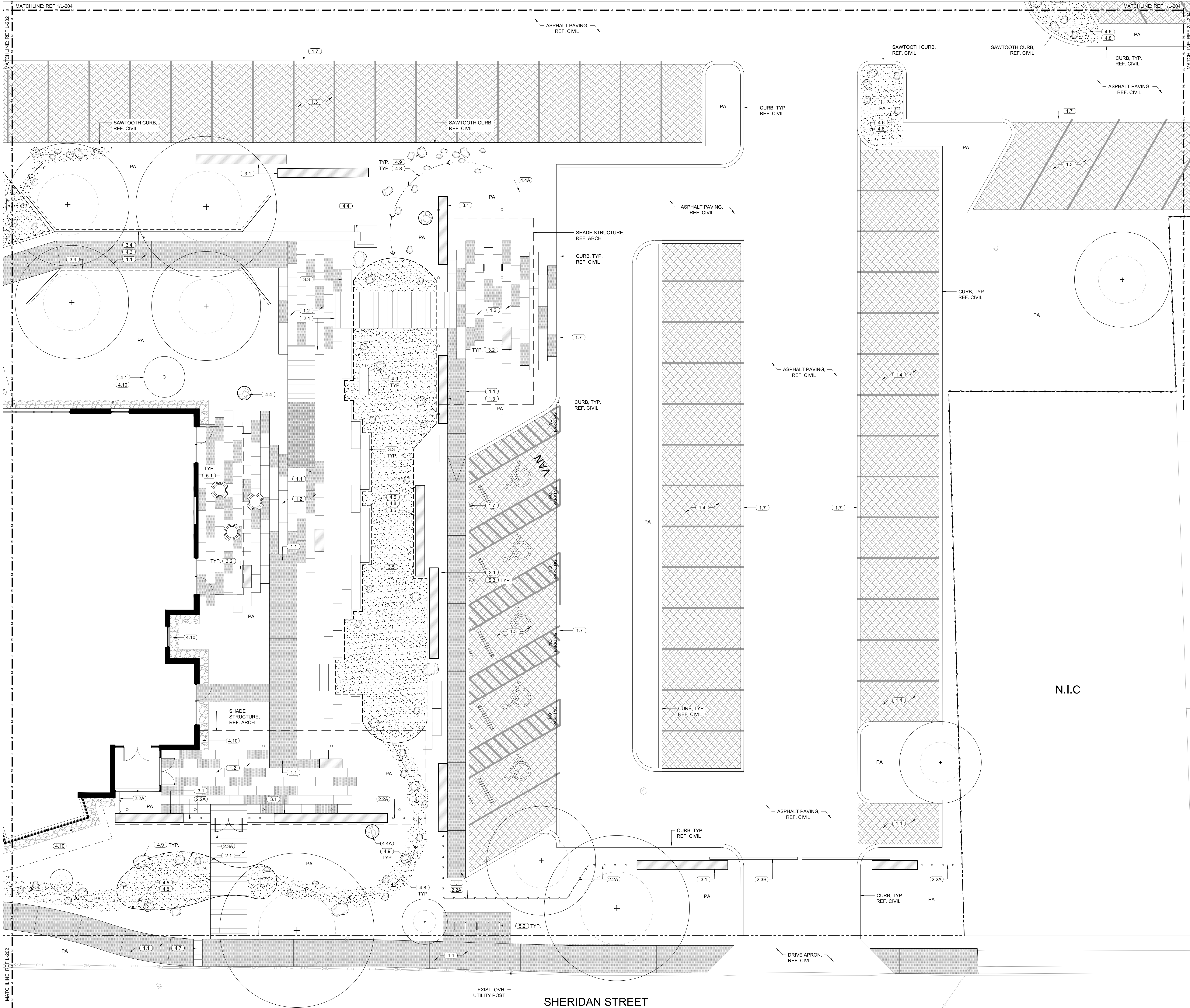
ARCHITECTURE

2002 N. Saint Mary's St.
San Antonio Texas 78212
Office: 210.733.3535
web: www.rvkarchitecture.com

60% CONSTRUCTION
DOCUMENTS

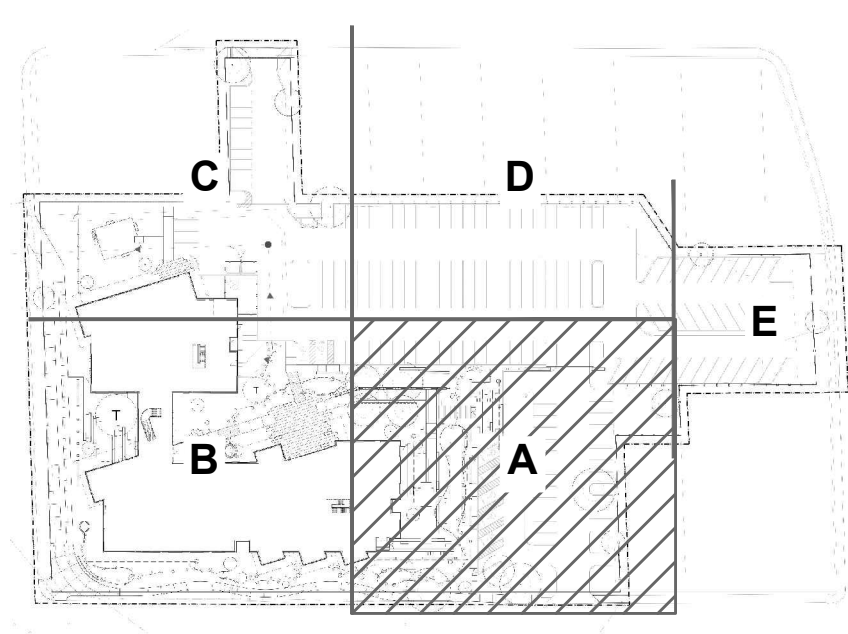
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OVERALL HARDSCAPE
PLAN



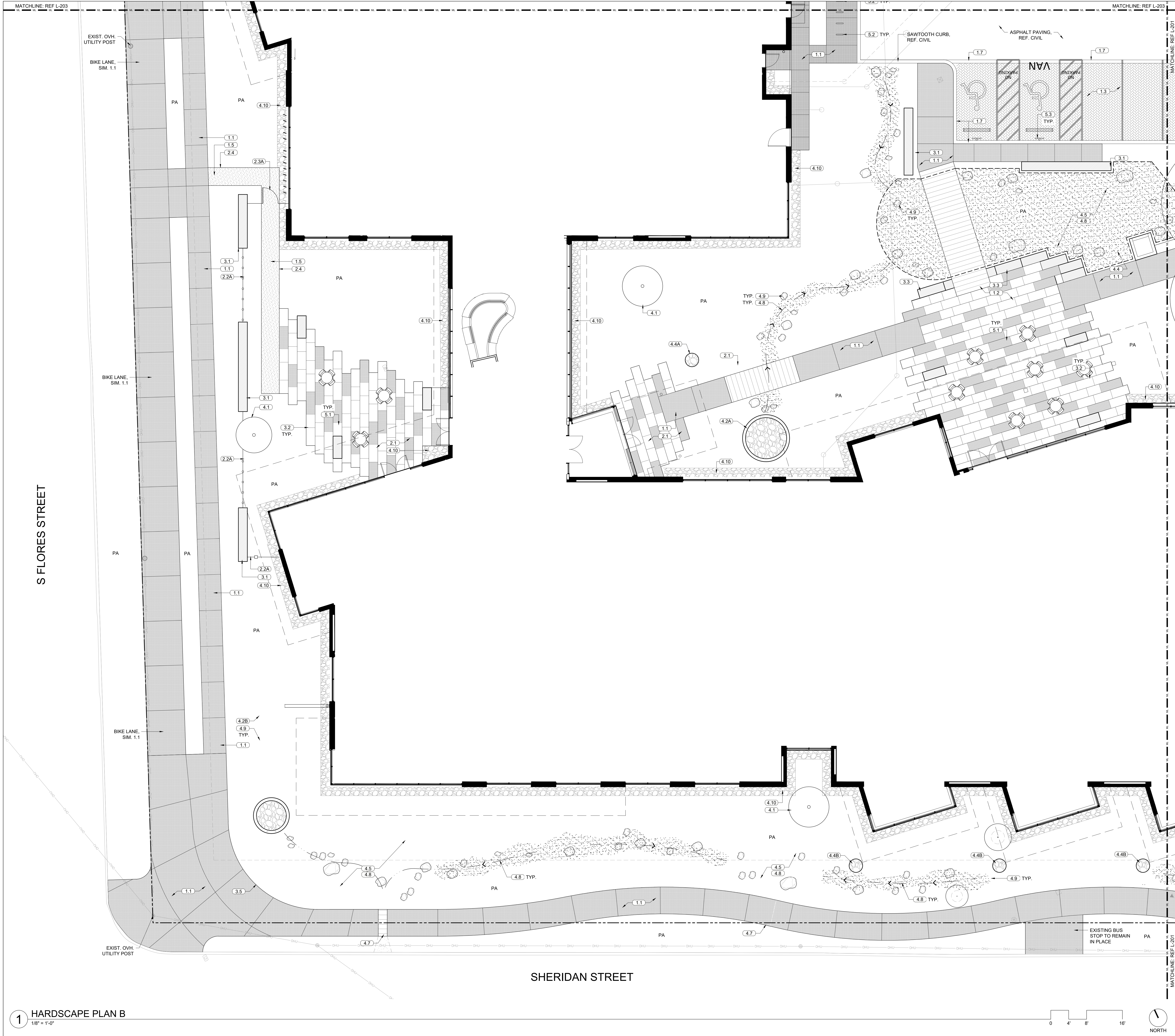
SYMBOLS LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE
	PA

MATERIALS LEGEND			
SYMBOL	#	ITEM	REF.
1.0 PAVING, CURBS			
	1.1	CONCRETE PAVING	1-7 / L-500
	1.2	CUT STONE PAVING	8 / L-500
	1.3	PERMEABLE PAVERS	9 / L-500
	1.4	STANDARD PAVERS	
	1.5	STABILIZED DECOMPOSED GRANITE	11 / L-500
	1.6	ASPHALT PAVING	REF. CIVIL
	1.7	CONCRETE HEADER CURB	REF. CIVIL
2.0 SITE METALS			
	2.1	STEEL BOARDWALK	12 / L-500
	2.2	STEEL FENCE	
	A	STEEL MESH INFILL	2-3.5 / L-501
	B	WOOD INFILL	
	2.3	STEEL GATE	
	A	PEDESTRIAN SLIDING	1,4,6 / L-501
	2.4	STEEL EDGING	13 / L-500
3.0 SITE WALLS			
	3.1	STONE GARDEN WALLS	1-2 / L-502
	3.2	QUARRY BLOCK SEATWALL	3 / L-502
	3.3	QUARRY BLOCK @ RETENTION BASINS	4 / L-502
	3.4	STEEL BLADE WALL	5 / L-502
	3.5	BOULDER STABILIZED SLOPE	6 / L-502
	3.6	ARTIST SEATWALL	7 / L-502
4.0 DRAINAGE FEATURES			
	4.1	RAINWATER STORAGE TANK	REF. ARCH
	4.2	STORMWATER CATCHMENT BASIN	
	A	COURTYARD	1 / L-503
	B	S FLORES STREET	
	4.3	STEEL RUNNEL	2 / L-503
	4.4	RAIN CHAIN CATCHMENT BASIN	
	A	TYPICAL	3-4 / L-503
	4.5	BIORETENTION AREA	6-7 / L-503
	4.6	CURB BUMP OUT	8 / L-503
	4.7	CURB INLET	
	4.8	SWALE TOPDRESSING	7 / L-503
	4.9	LIMESTONE BOULDER	8 / L-503
	4.10	GRAVEL BAND	
5.0 MISC			
	5.1	MOVEABLE TABLE & CHAIRS	
	5.2	BIKE RACK	1 / L-504
	5.3	CUSTOM ADA PARKING SIGNAGE	2 / L-504
	5.4	INTERPRETIVE SIGNAGE	



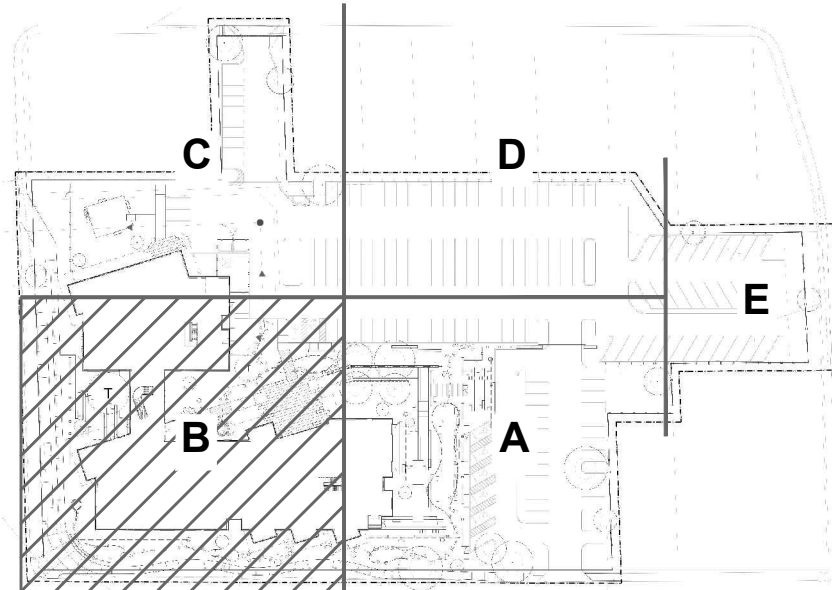
1 HARDSCAPE PLAN A
1/8" = 1'-0"

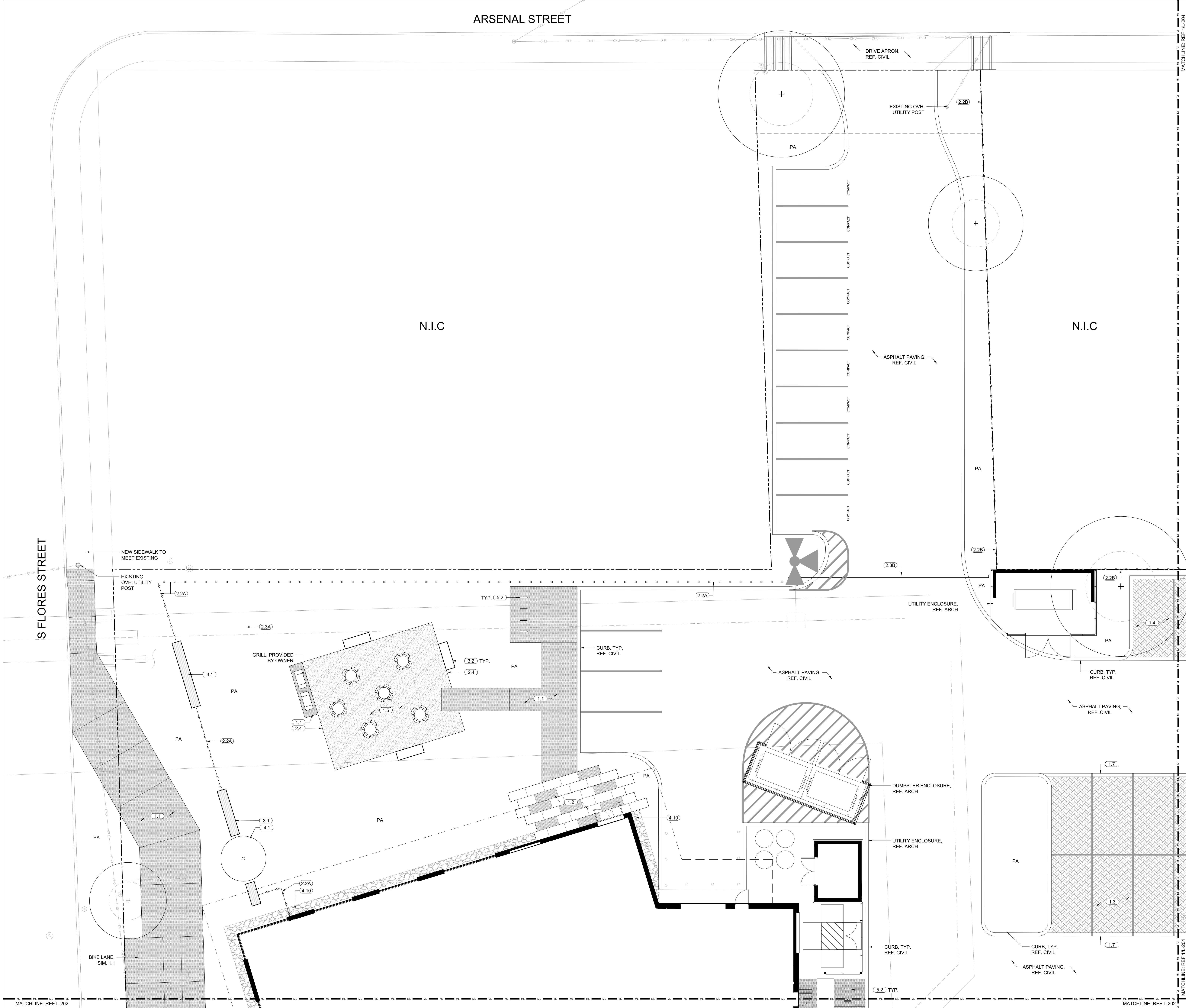




SYMBOLS LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE
	PA PLANTING AREA

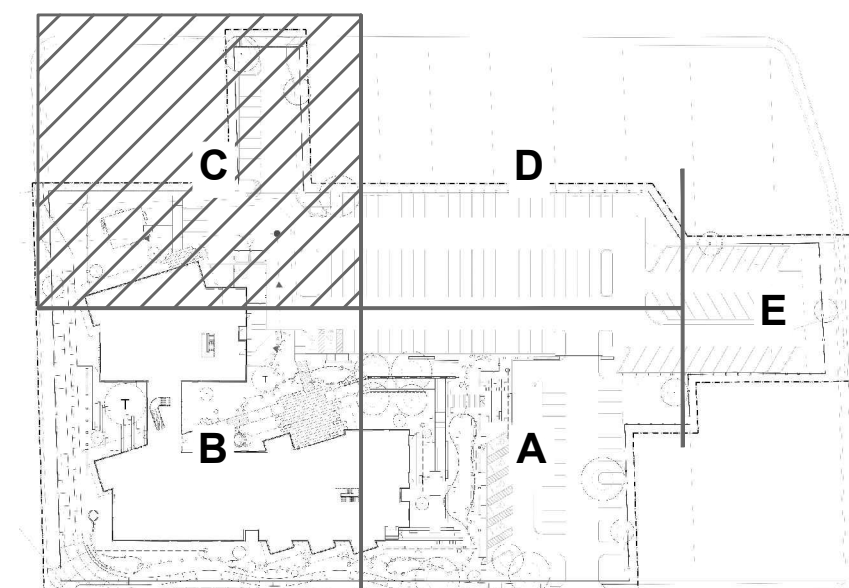
MATERIALS LEGEND			
SYMBOL	#	ITEM	REF.
1.0 PAVING, CURBS			
	1.1	CONCRETE PAVING	1-7 / L-500
	1.2	CUT STONE PAVING	8 / L-500
	1.3	PERMEABLE PAVERS	9 / L-500
	1.4	STANDARD PAVERS	
	1.5	STABILIZED DECOMPOSED GRANITE	11 / L-500
	1.6	ASPHALT PAVING	REF. CIVIL
	1.7	CONCRETE HEADER CURB	REF. CIVIL
2.0 SITE METALS			
	2.1	STEEL BOARDWALK	12 / L-500
	2.2	STEEL FENCE A. STEEL MESH INFILL B. WOOD INFILL	2-3.5 / L-501
	2.3	STEEL GATE A. PEDESTRIAN B. VEHICULAR SLIDING	1,4.6 / L-501
	2.4	STEEL EDGING	13 / L-500
3.0 SITE WALLS			
	3.1	STONE GARDEN WALLS	1-2 / L-502
	3.2	QUARRY BLOCK SEATWALL	3 / L-502
	3.3	QUARRY BLOCK @ RETENTION BASINS	4 / L-502
	3.4	STEEL BLADE WALL	5 / L-502
	3.5	BOULDER STABILIZED SLOPE	6 / L-502
	3.6	ARTIST SEATWALL	7 / L-502
4.0 DRAINAGE FEATURES			
	4.1	RAINWATER STORAGE TANK	REF. ARCH
	4.2	STORMWATER CATCHMENT BASIN A. COURTYARD B. S FLORES STREET	1 / L-503
	4.3	STEEL RUNNEL	2 / L-503
	4.4	RAIN CHAIN CATCHMENT BASIN A. TYPICAL B. AT STREETSCAPE	3-4 / L-503
	4.5	BIORETENTION AREA	6-7 / L-503
	4.6	CURB BUMP OUT	8 / L-503
	4.7	CURB INLET	
	4.8	SWALE TOPDRESSING	7 / L-503
	4.9	LIMESTONE BOULDER	8 / L-503
	4.10	GRAVEL BAND	
5.0 MISC			
	5.1	MOVEABLE TABLE & CHAIRS	
	5.2	BIKE RACK	1 / L-504
	5.3	CUSTOM ADA PARKING SIGNAGE	2 / L-504
	5.4	INTERPRETIVE SIGNAGE	





SYMBOLS LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE
	PA

MATERIALS LEGEND			
SYMBOL	#	ITEM	REF.
1.0 PAVING, CURBS			
	1.1	CONCRETE PAVING	1-7 / L-500
	1.2	CUT STONE PAVING	8 / L-500
	1.3	PERMEABLE PAVERS	9 / L-500
	1.4	STANDARD PAVERS	
	1.5	STABILIZED DECOMPOSED GRANITE	11 / L-500
	1.6	ASPHALT PAVING	REF. CIVIL
	1.7	CONCRETE HEADER CURB	REF. CIVIL
2.0 SITE METALS			
	2.1	STEEL BOARDWALK	12 / L-500
	2.2	STEEL FENCE A. STEEL MESH INFILL B. WOOD INFILL	2-3.5 / L-501
	2.3	STEEL GATE A. PEDESTRIAN B. VEHICULAR SLIDING	1.4, 6 / L-501
	2.4	STEEL EDGING	13 / L-500
3.0 SITE WALLS			
	3.1	STONE GARDEN WALLS	1-2 / L-502
	3.2	QUARRY BLOCK SEATWALL	3 / L-502
	3.3	QUARRY BLOCK @ RETENTION BASINS	4 / L-502
	3.4	STEEL BLADE WALL	5 / L-502
	3.5	BOULDER STABILIZED SLOPE	6 / L-502
	3.6	ARTIST SEATWALL	7 / L-502
4.0 DRAINAGE FEATURES			
	4.1	RAINWATER STORAGE TANK	REF. ARCH
	4.2	STORMWATER CATCHMENT BASIN A. COURTYARD B. S FLORES STREET	1 / L-503
	4.3	STEEL RUNNEL	2 / L-503
	4.4	RAIN CHAIN CATCHMENT BASIN A. TYPICAL B. AT STREETSCAPE	3-4 / L-503
	4.5	BIORETENTION AREA	6-7 / L-503
	4.6	CURB BUMP OUT	8 / L-503
	4.7	CURB INLET	
	4.8	SWALE TOPDRESSING	7 / L-503
	4.9	LIMESTONE BOULDER	8 / L-503
	4.10	GRAVEL BAND	
5.0 MISC			
	5.1	MOVEABLE TABLE & CHAIRS	
	5.2	BIKE RACK	1 / L-504
	5.3	CUSTOM ADA PARKING SIGNAGE	2 / L-504
	5.4	INTERPRETIVE SIGNAGE	



1 HARDSCAPE PLAN C
1/8" = 1'-0"



Project No. 22068A

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Date 2024-08-23

TEN EYCK
LANDSCAPE ARCHITECTS

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www.teneyckla.com

San Antonio River Authority

SARA Sheridan Campus

201 W Sheridan St
San Antonio, TX
78204

revision date

LAKE FLATO

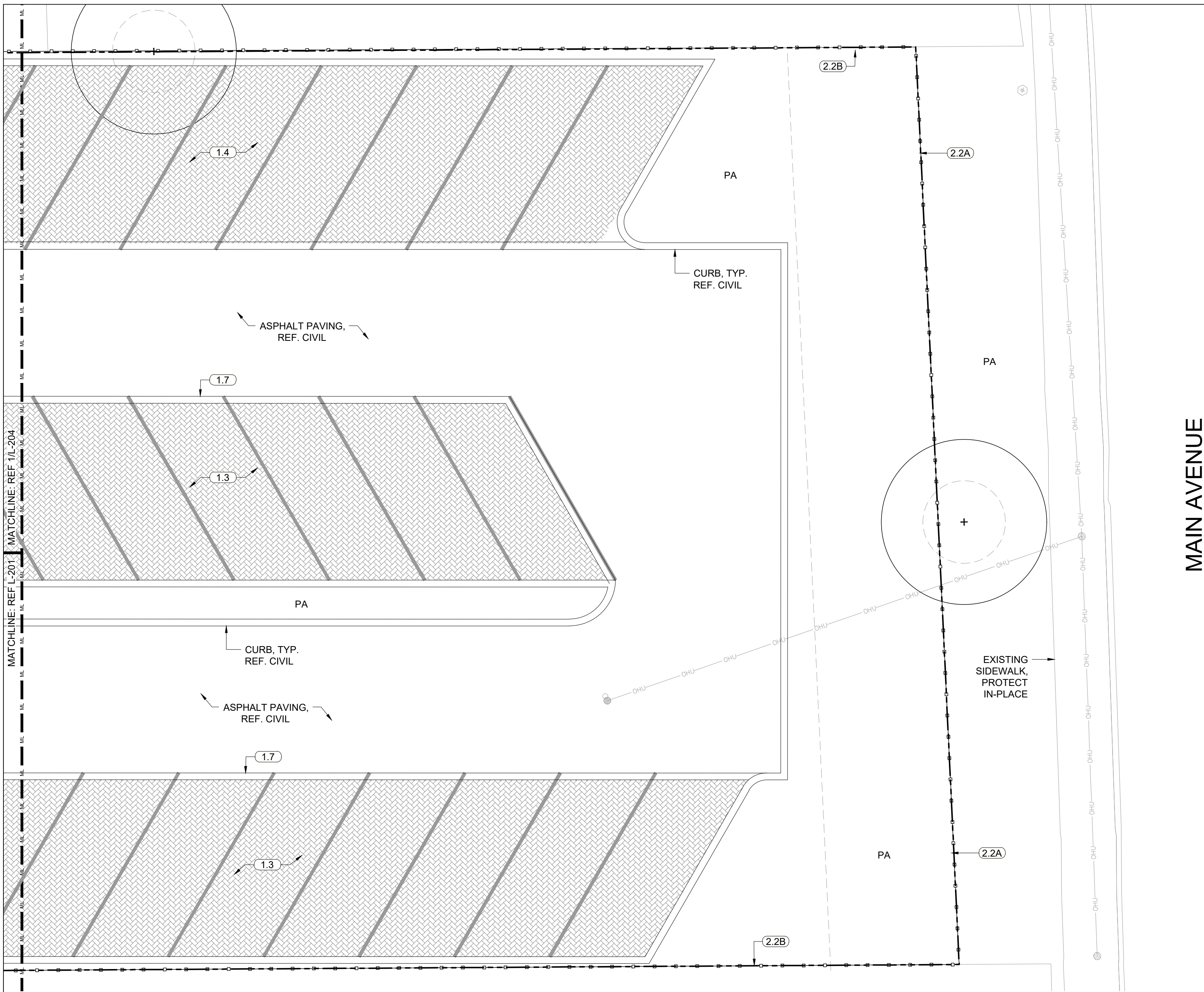
RVK
ARCHITECTURE

2002 N. Saint Mary's St.
San Antonio Texas 78212
Office: 210.733.3535
web: www.rvkarchitecture.com

60% CONSTRUCTION
DOCUMENTS

L-203

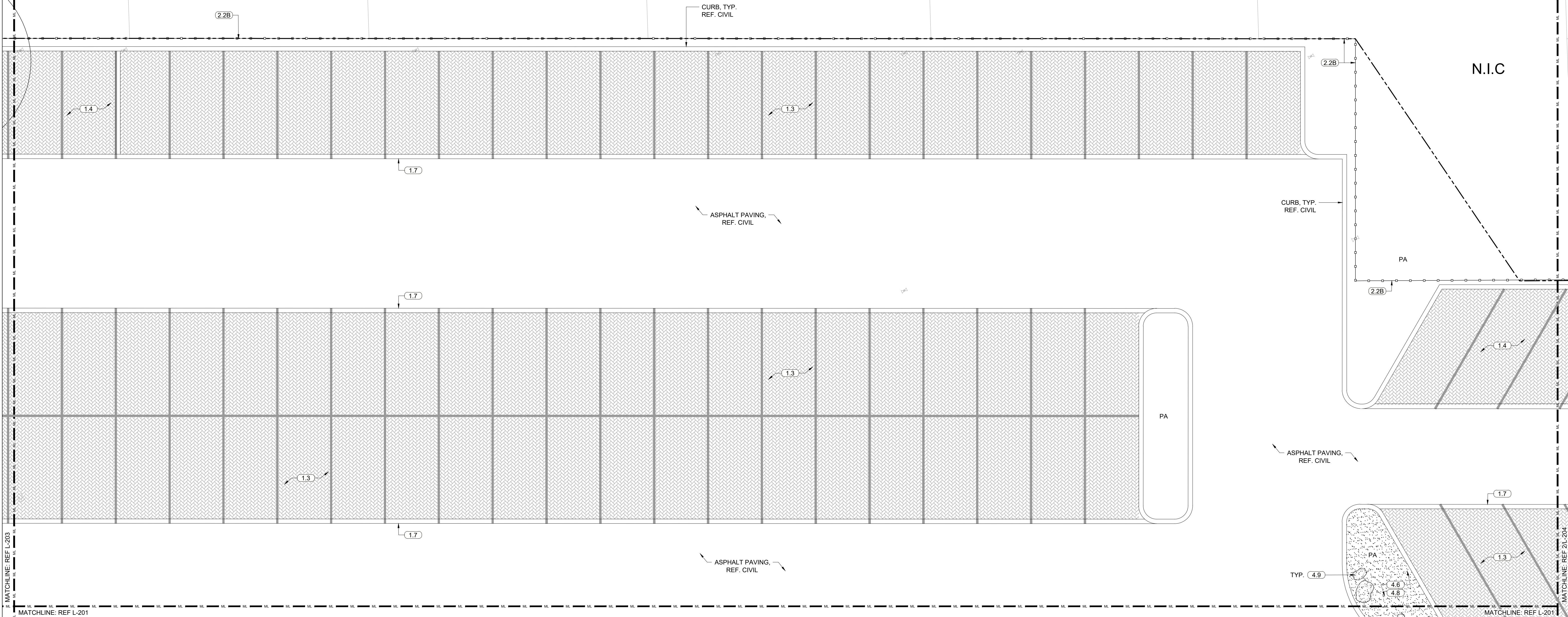
HARDSCAPE PLAN C



MAIN AVENUE



1 HARDSCAPE PLAN E
1/8" = 1'-0"



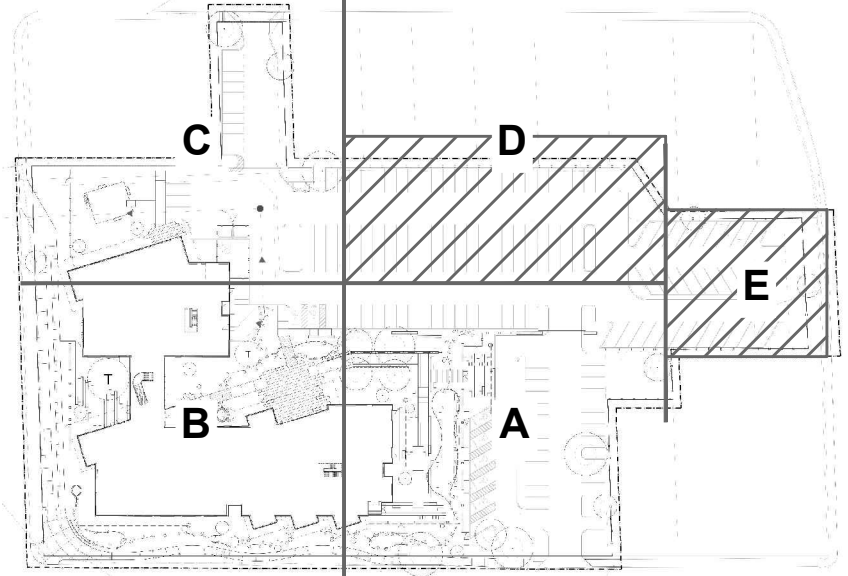
N.I.C



1 HARDSCAPE PLAN D
1/8" = 1'-0"

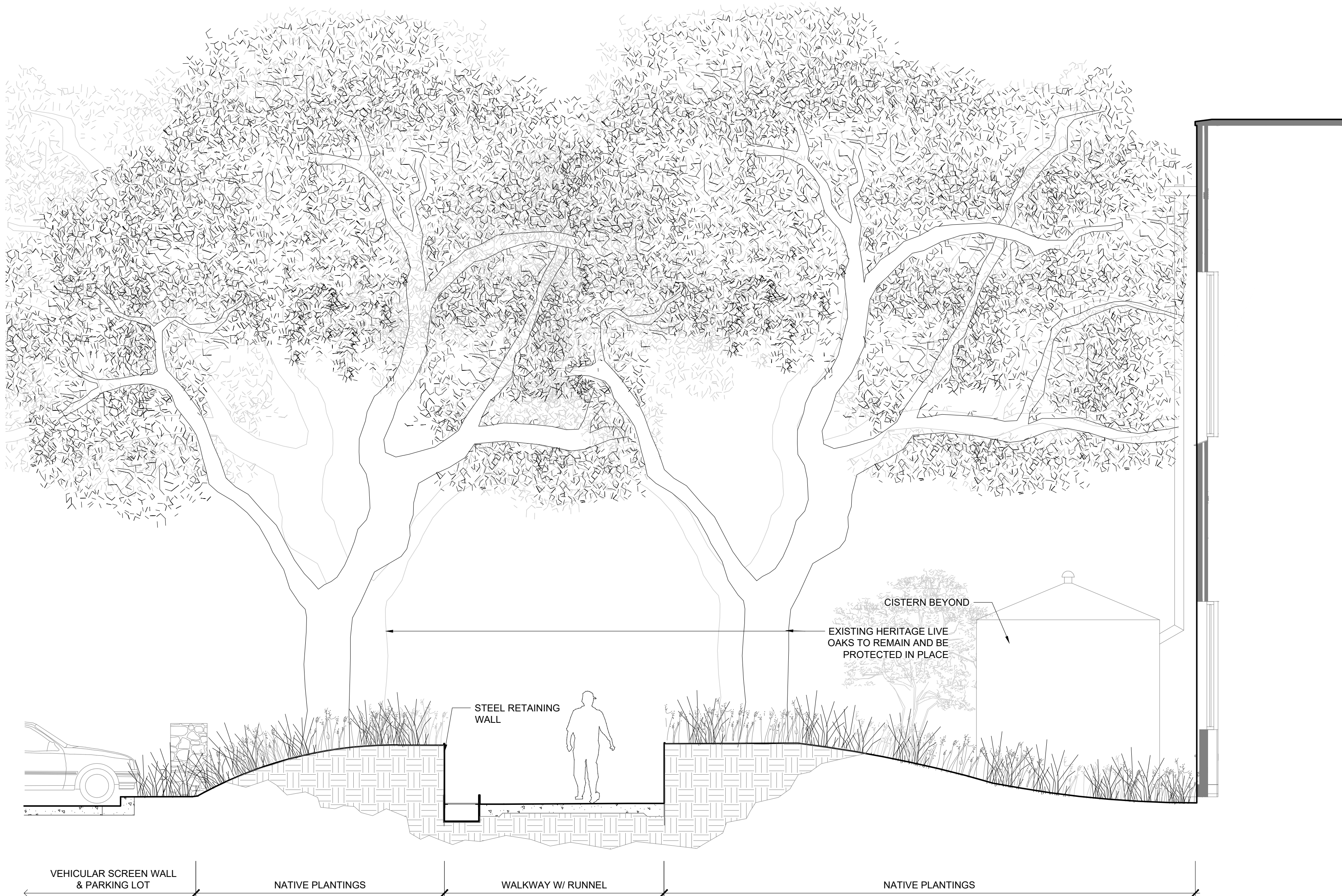
SYMBOLS LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE
PA	PLANTING AREA

MATERIALS LEGEND			
SYMBOL	#	ITEM	REF.
1.0 PAVING, CURBS			
	1.1	CONCRETE PAVING	1-7 / L-500
	1.2	CUT STONE PAVING	8 / L-500
	1.3	PERMEABLE PAVERS	9 / L-500
	1.4	STANDARD PAVERS	
	1.5	STABILIZED DECOMPOSED GRANITE	11 / L-500
	1.6	ASPHALT PAVING	REF. CIVIL
	1.7	CONCRETE HEADER CURB	REF. CIVIL
2.0 SITE METALS			
	2.1	STEEL BOARDWALK	12 / L-500
	2.2	STEEL FENCE A. STEEL MESH INFILL B. WOOD INFILL	2-3.5 / L-501
	2.3	STEEL GATE A. PEDESTRIAN B. VEHICULAR SLIDING	1,4,6 / L-501
	2.4	STEEL EDGING	13 / L-500
3.0 SITE WALLS			
	3.1	STONE GARDEN WALLS	1-2 / L-502
	3.2	QUARRY BLOCK SEATWALL	3 / L-502
	3.3	QUARRY BLOCK @ RETENTION BASINS	4 / L-502
	3.4	STEEL BLADE WALL	5 / L-502
	3.5	BOULDER STABILIZED SLOPE	6 / L-502
	3.6	ARTIST SEATWALL	7 / L-502
4.0 DRAINAGE FEATURES			
	4.1	RAINWATER STORAGE TANK	REF. ARCH
	4.2	STORMWATER CATCHMENT BASIN A. COURTYARD B. S FLORES STREET	1 / L-503
	4.3	STEEL RUNNEL	2 / L-503
	4.4	RAIN CHAIN CATCHMENT BASIN A. TYPICAL B. AT STREETSCAPE	3-4 / L-503
	4.5	BIORETENTION AREA	6-7 / L-503
	4.6	CURB BUMP OUT	8 / L-503
	4.7	CURB INLET	
	4.8	SWALE TOPDRESSING	7 / L-503
	4.9	LIMESTONE BOULDER	8 / L-503
	4.10	GRAVEL BAND	
5.0 MISC			
	5.1	MOVEABLE TABLE & CHAIRS	
	5.2	BIKE RACK	1 / L-504
	5.3	CUSTOM ADA PARKING SIGNAGE	2 / L-504
	5.4	INTERPRETIVE SIGNAGE	

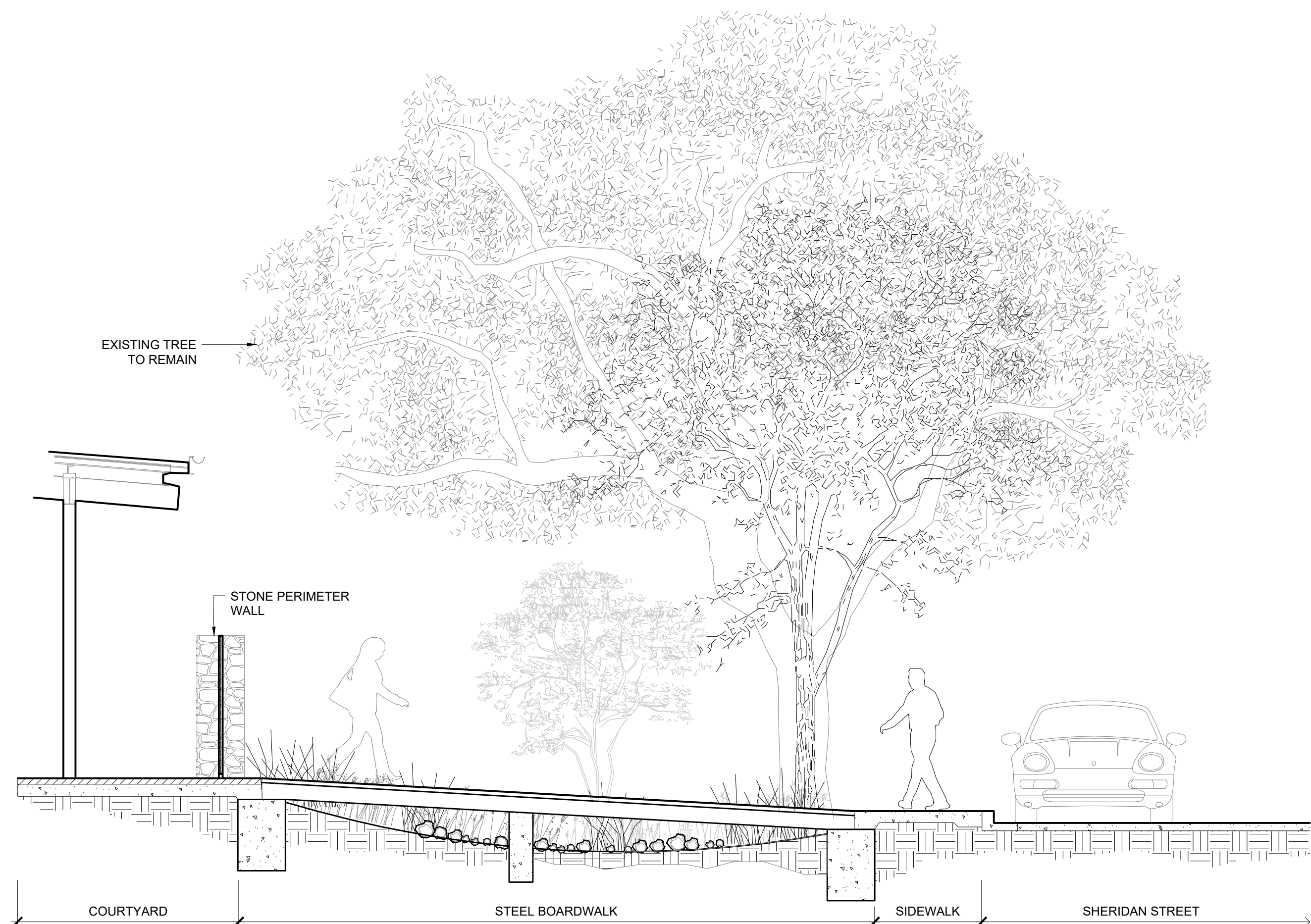


KEY PLAN: NTs

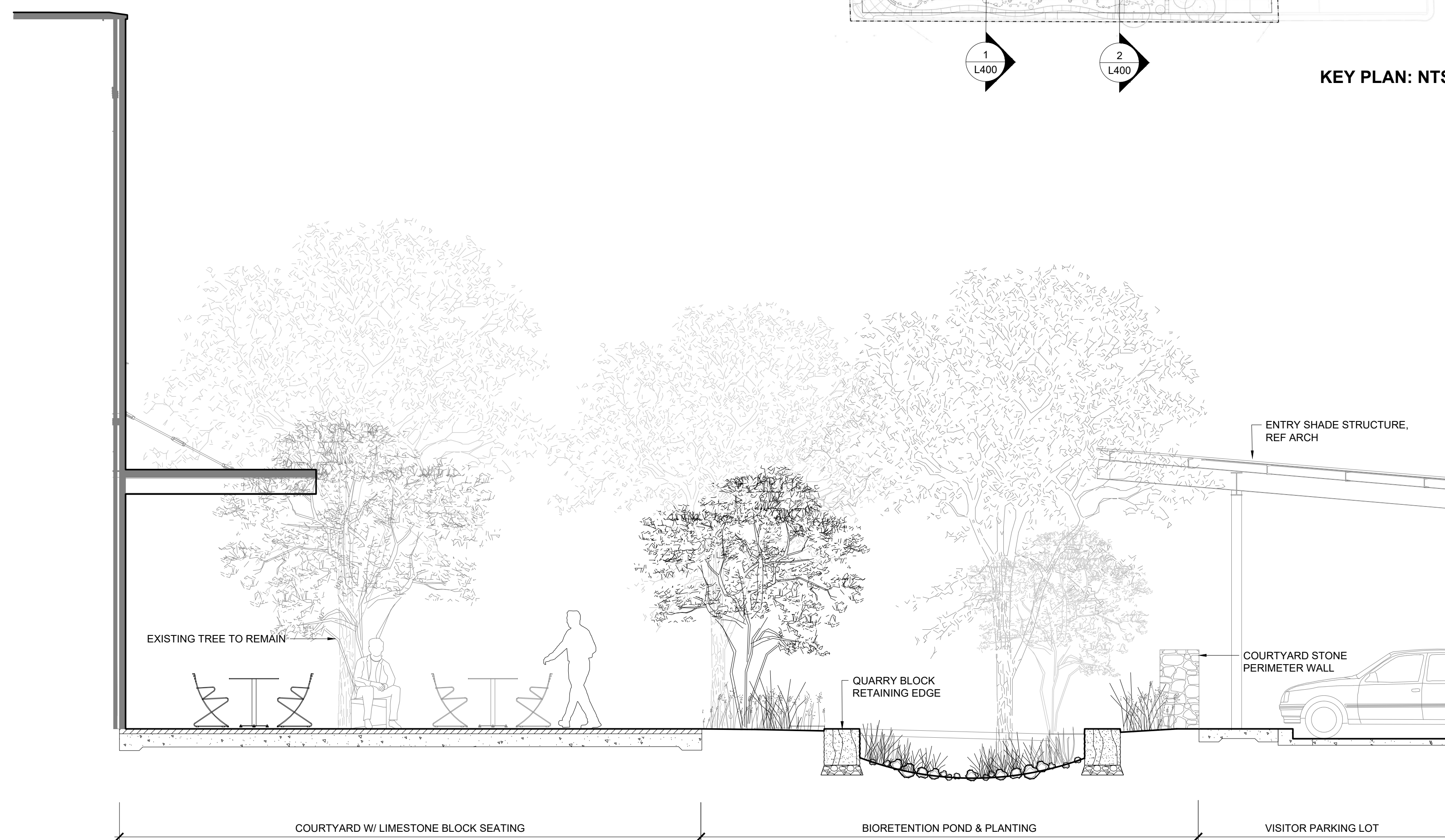
NOTE: SITE SECTIONS ARE FOR GENERAL DESIGN INTENT & CONCEPTUAL RELATIONSHIPS ONLY. SECTIONS MAY NOT REPRESENT ACTUAL SITE CONDITIONS OR MOST CURRENT HARDSCAPE & GRADING. REFERENCE PLANS AND DETAILS.



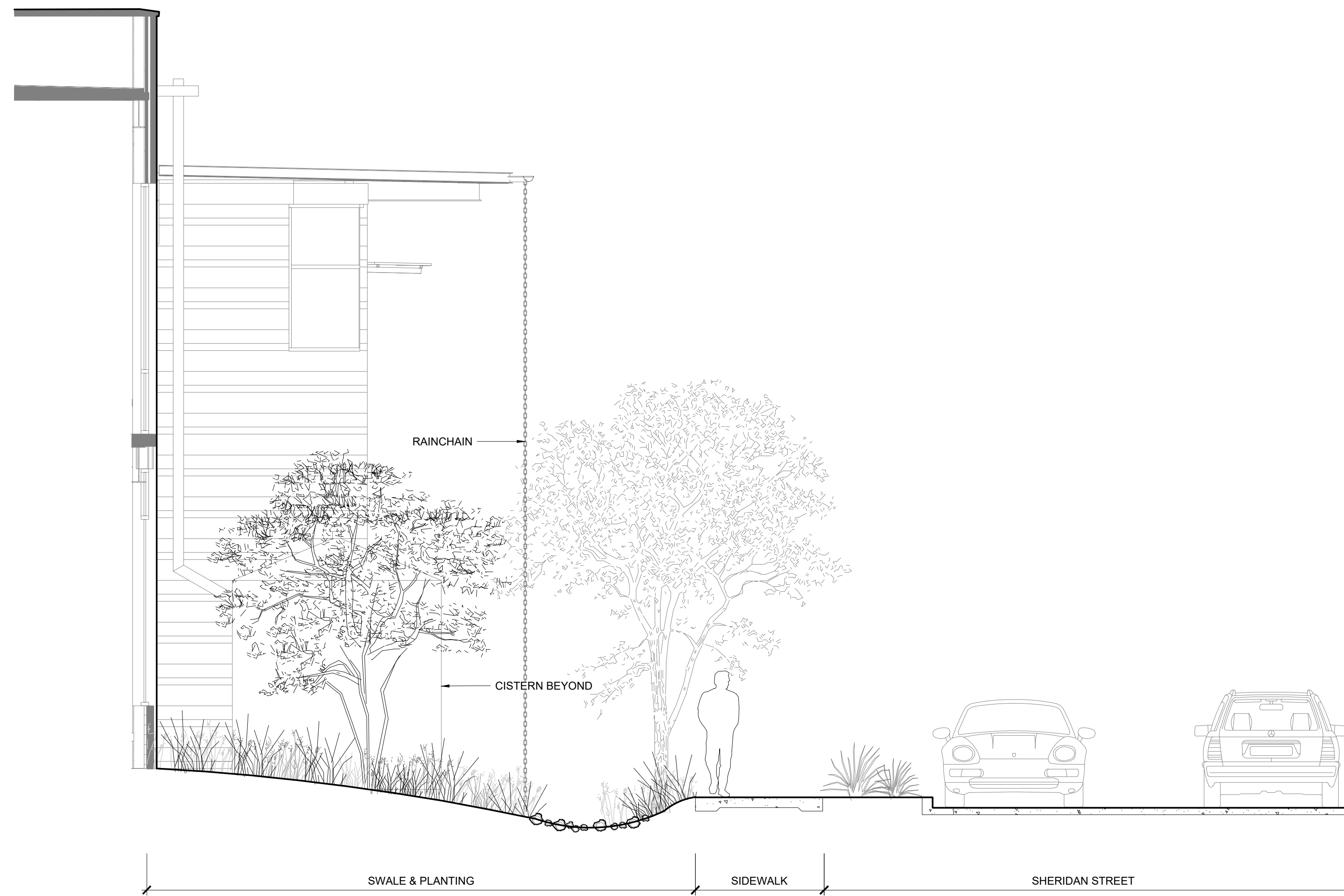
4 OAK GROVE & BOARDWALK - NORTH
1/4" = 1'-0"



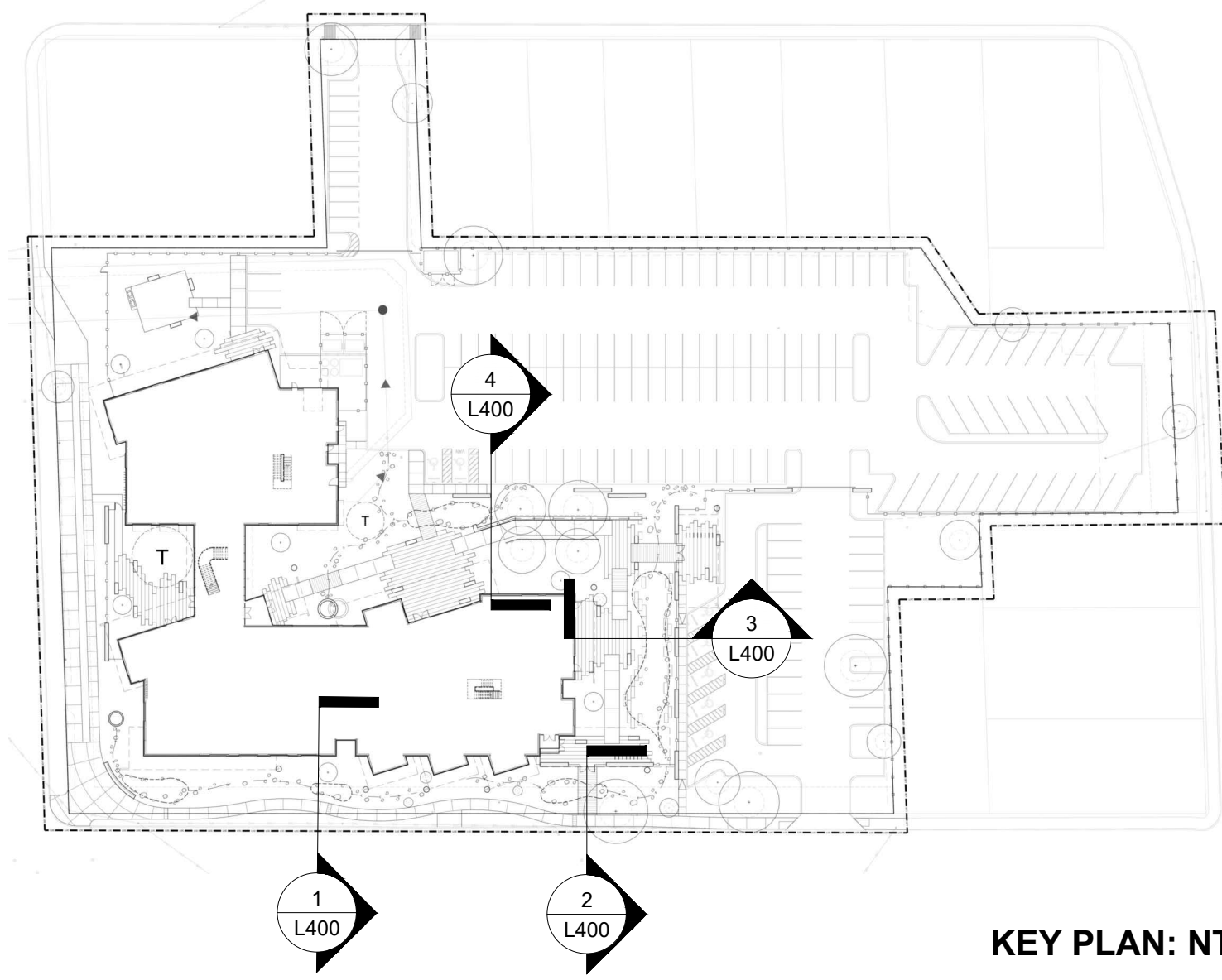
2 SHERIDAN STREET ENTRANCE
1/4" = 1'-0"



3 COURTYARD & BIOSWALE - EAST
1/4" = 1'-0"



1 CAMPUS EDGE - SHERIDAN STREET
1/4" = 1'-0"



KEY PLAN: NTS

Project No. 22068A

PRELIMINARY
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permitting, or construction.

Date 2024-08-23

TEN EYCK
LANDSCAPE ARCHITECTS

1224 EAST 12TH STREET, SUITE 323
AUSTIN, TEXAS 78702
512.813.9690 P
www.teneyckla.com

San Antonio River Authority
SARA Sheridan Campus
201 W Sheridan St
San Antonio, TX
78204

revision date

LAKE FLATO
RVK
ARCHITECTURE

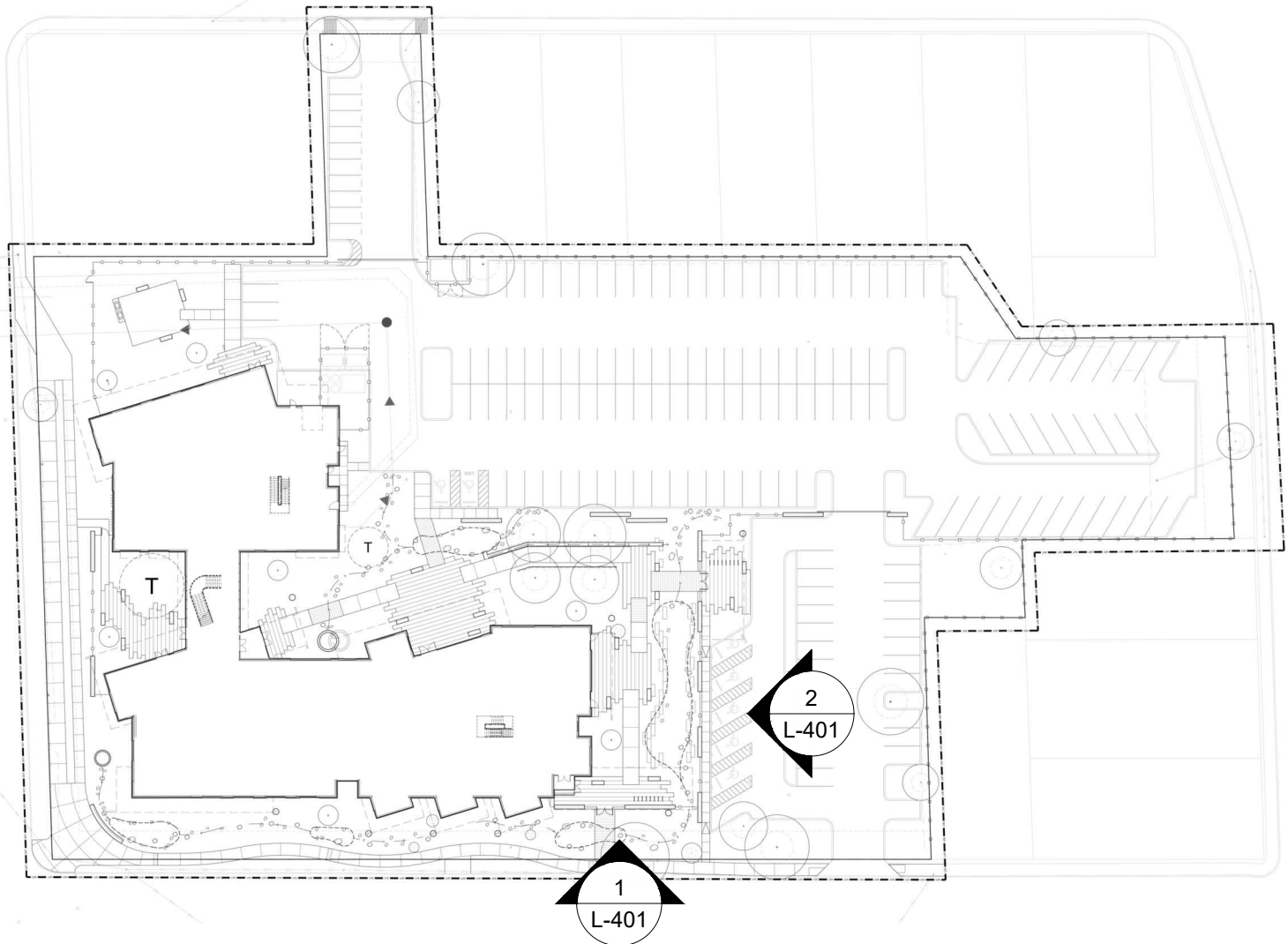
2002 N. Saint Mary's St.
San Antonio Texas 78212
Office: 210.733.3535
web: www.rvkarchitecture.com

60% CONSTRUCTION
DOCUMENTS

L-400

SECTIONS

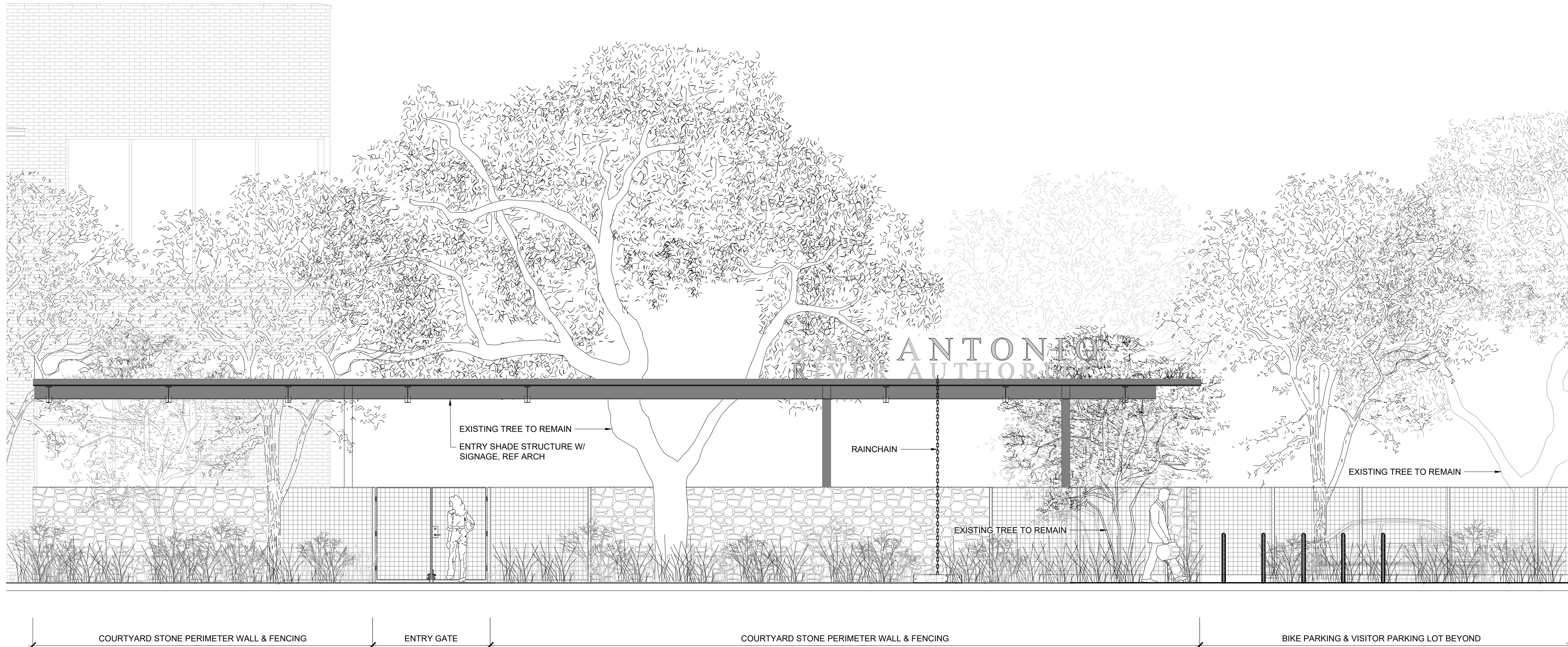
NOTE: SITE ELEVATIONS ARE FOR GENERAL DESIGN INTENT & CONCEPTUAL RELATIONSHIPS ONLY. ELEVATIONS MAY NOT REPRESENT ACTUAL SITE CONDITIONS OR MOST CURRENT HARDSCAPE & GRADING. REFERENCE PLANS AND DETAILS.



KEY PLAN: NTS



2 VISITOR PARKING LOT ENTRY
1/4" = 1'-0"



1 SHERIDAN STREET ENTRANCE
1/4" = 1'-0"

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LAKE FLATO
RVK
ARCHITECTURE

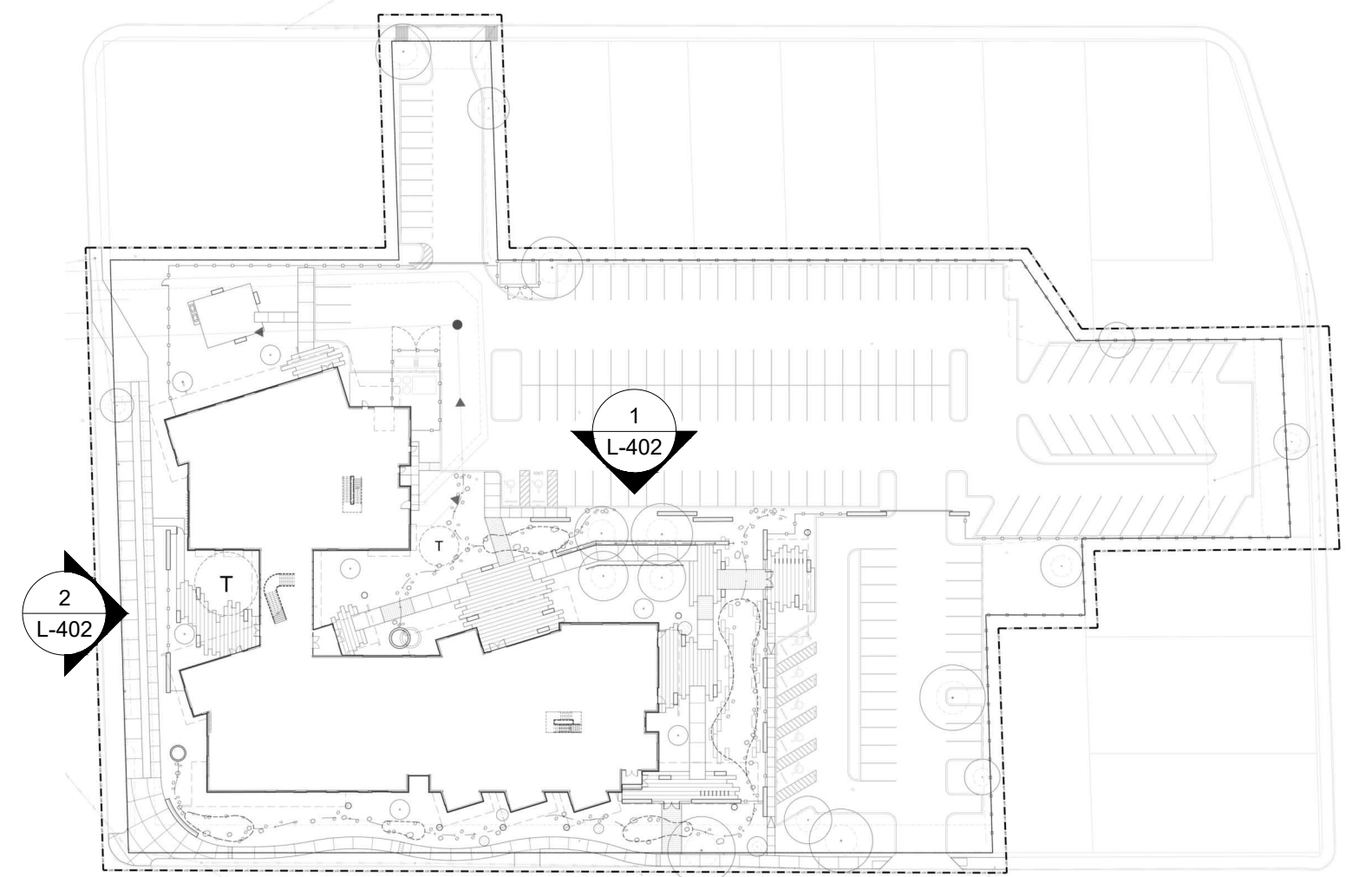
2002 N. Saint Mary's St.
San Antonio Texas 78212
Office: 210.733.3535
web: www.rvkarchitecture.com

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DOCUMENTS

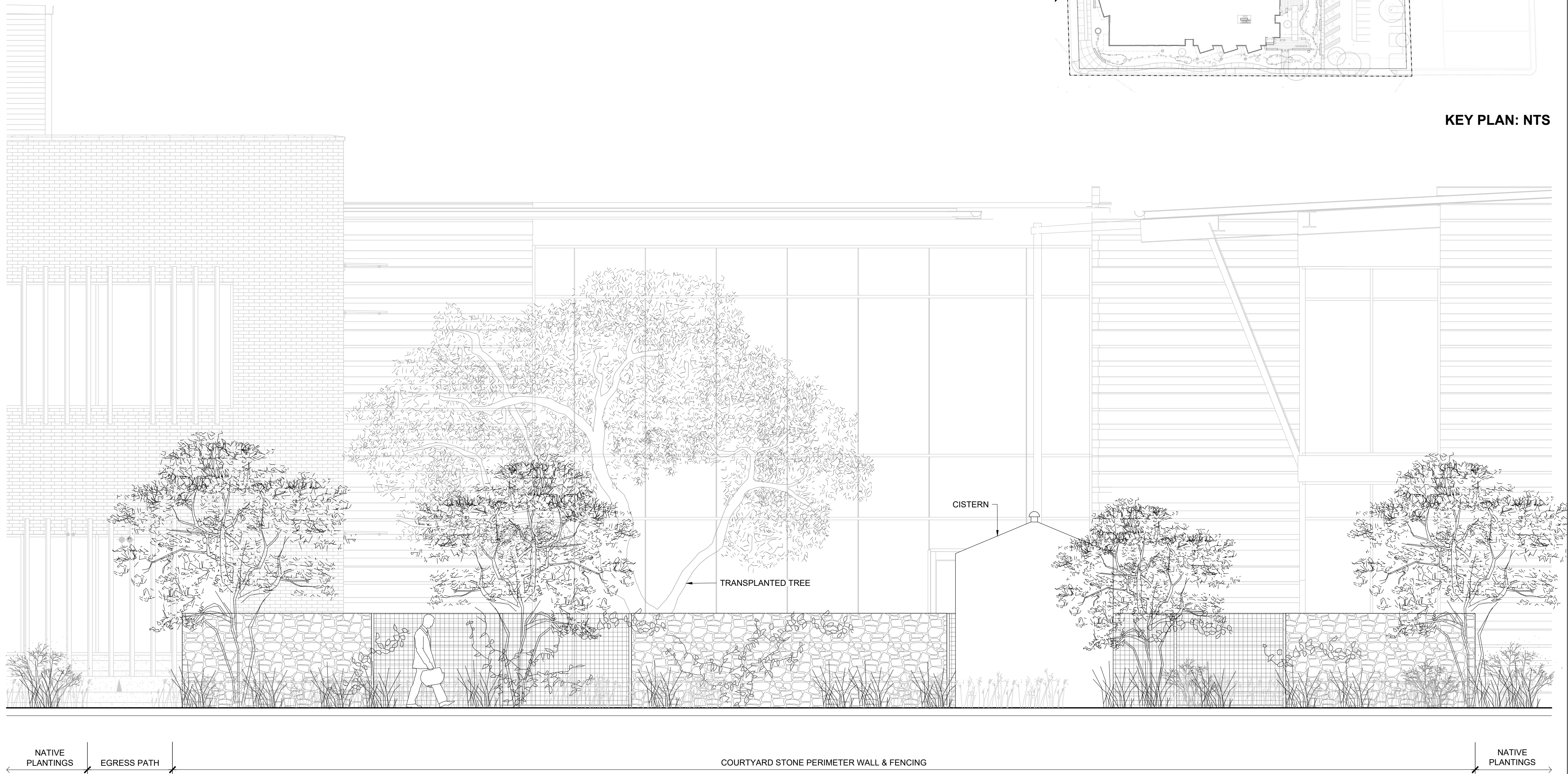
L-401

ELEVATIONS

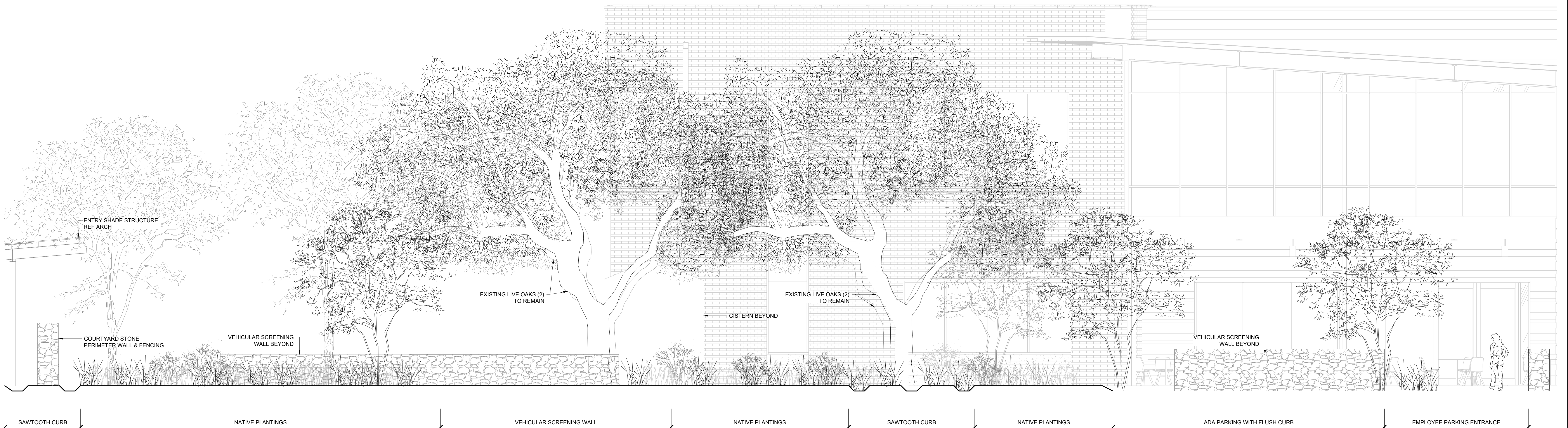
NOTE: SITE ELEVATIONS ARE FOR GENERAL DESIGN INTENT & CONCEPTUAL RELATIONSHIPS ONLY. ELEVATIONS MAY NOT REPRESENT ACTUAL SITE CONDITIONS OR MOST CURRENT HARDSCAPE & GRADING. REFERENCE PLANS AND DETAILS.



KEY PLAN: NTS



2 S FLORES STREET COURTYARD
1/4" = 1'-0"



1 EMPLOYEE PARKING LOT ENTRY
1/4" = 1'-0"

Project No. 22068A

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San Antonio, TX
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revision date

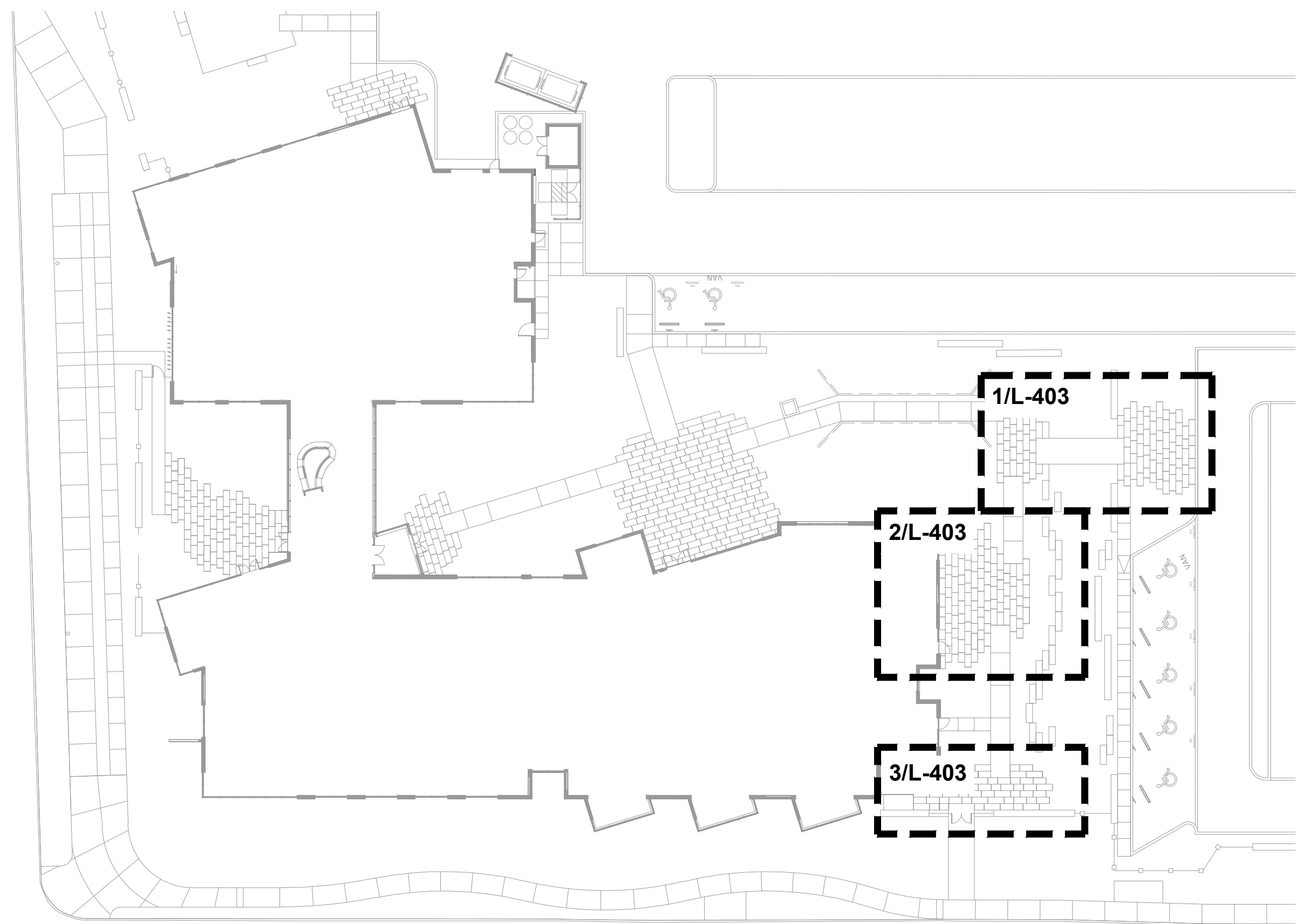
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San Antonio Texas 78212
Office: 210.733.3535
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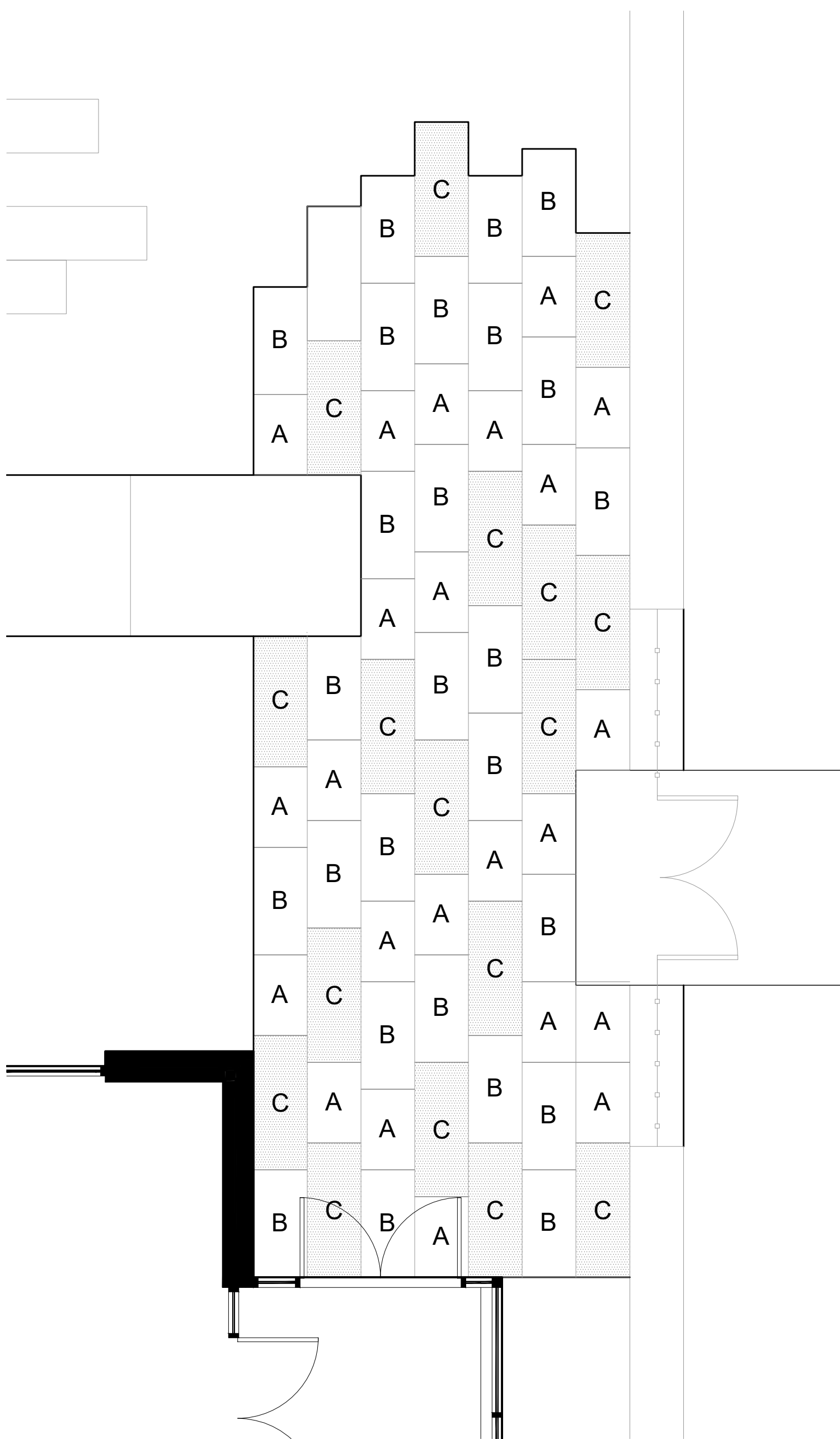
60% CONSTRUCTION
DOCUMENTS

L-402

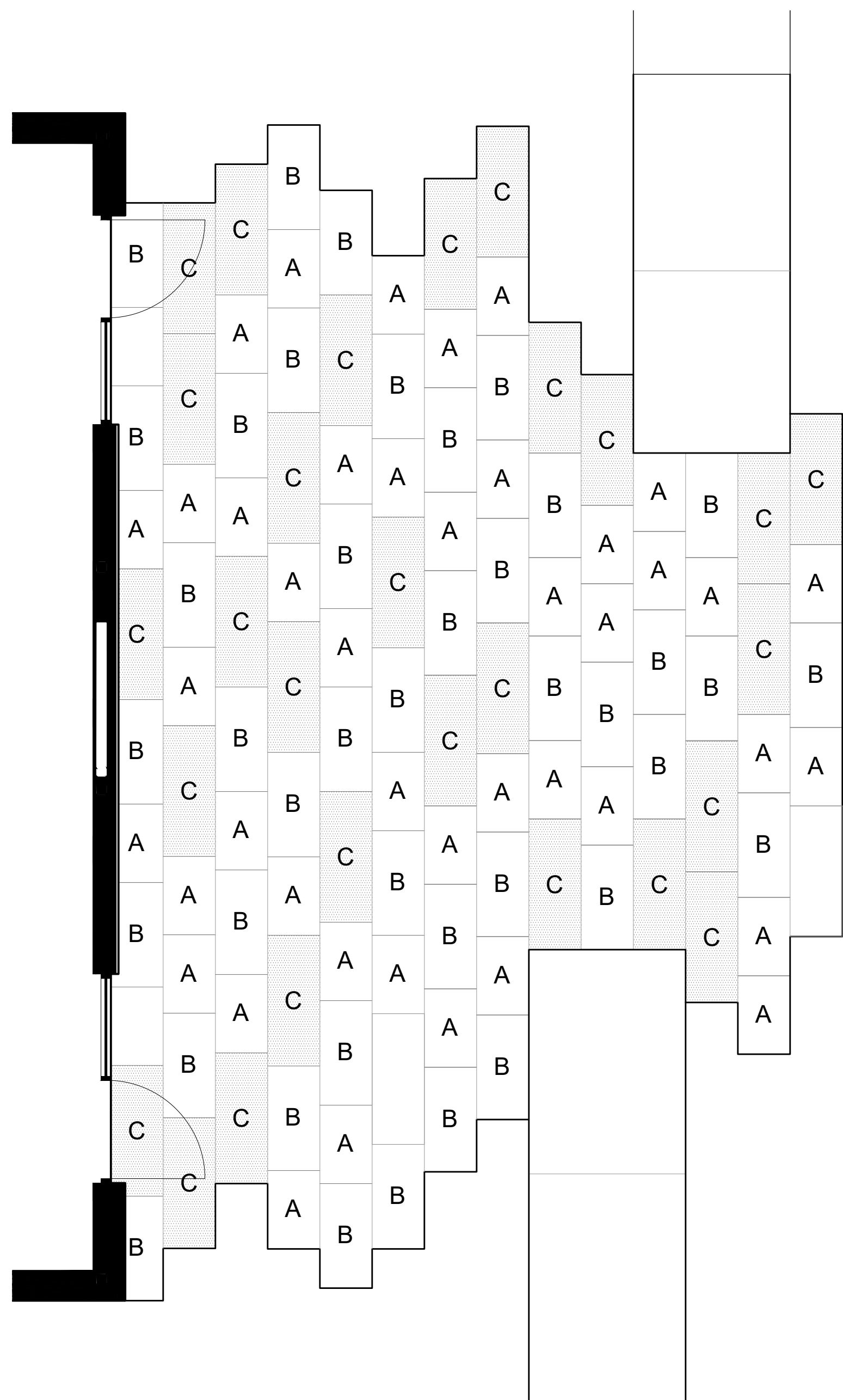
ELEVATIONS



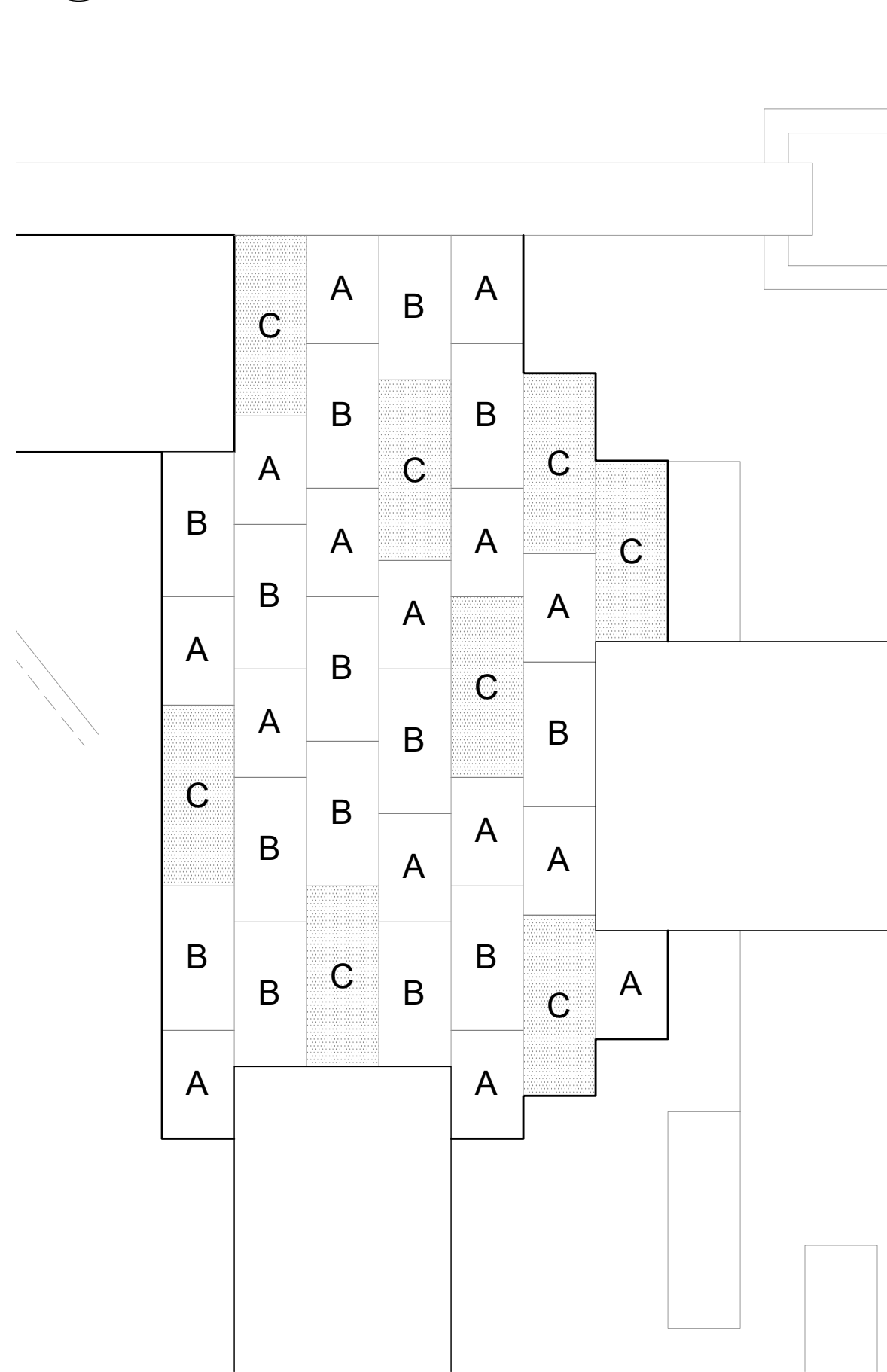
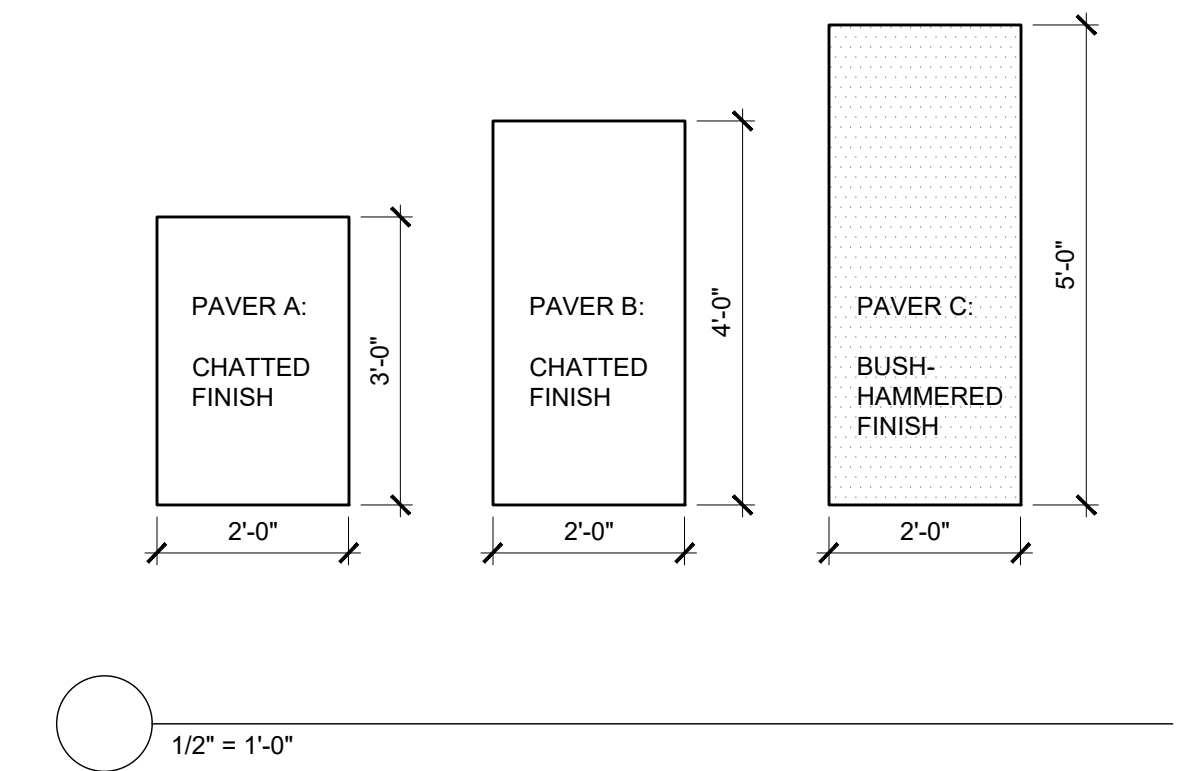
ENLARGEMENT KEY PLAN: NTS



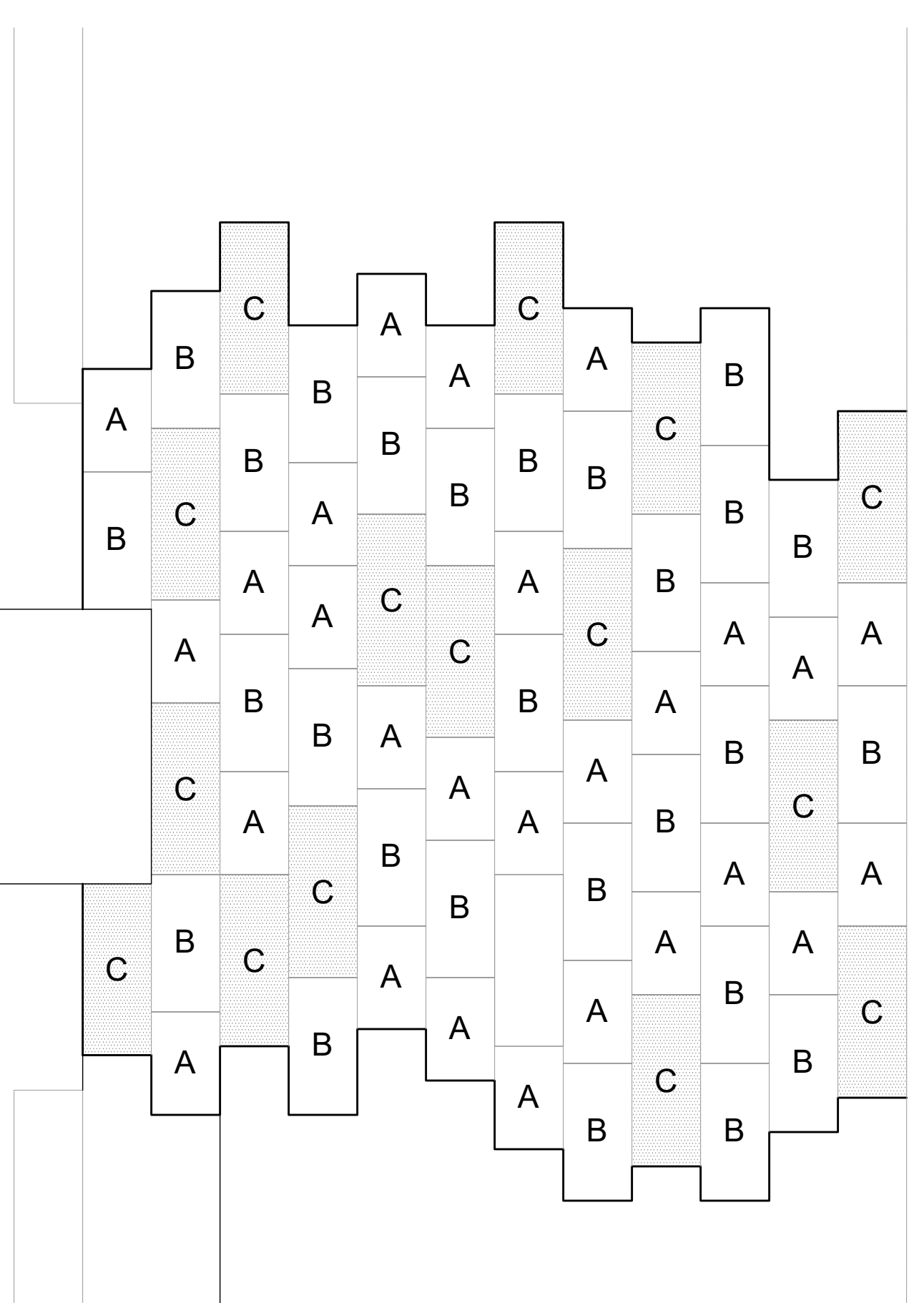
3 MAIN ENTRY
1/4" = 1'-0"

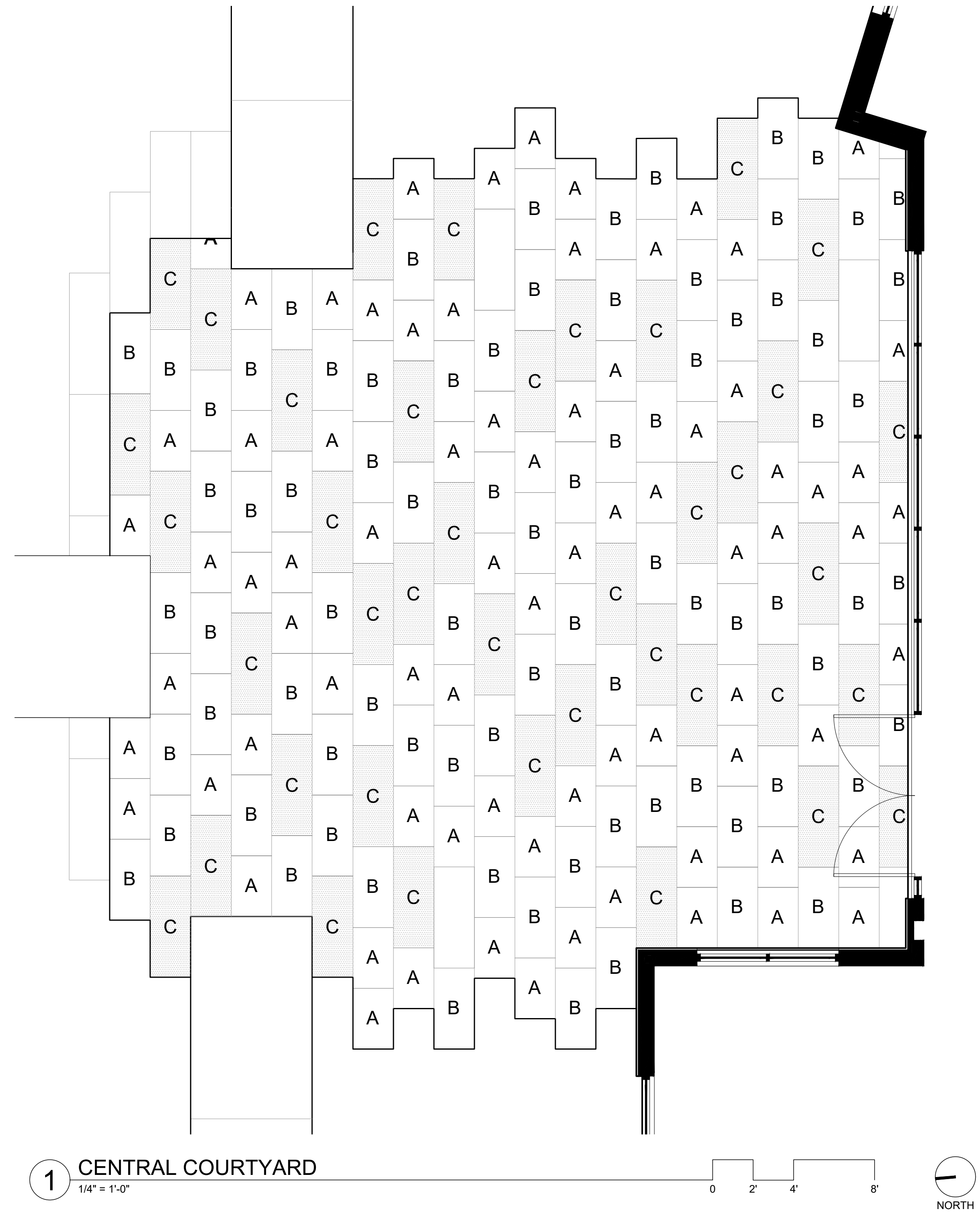
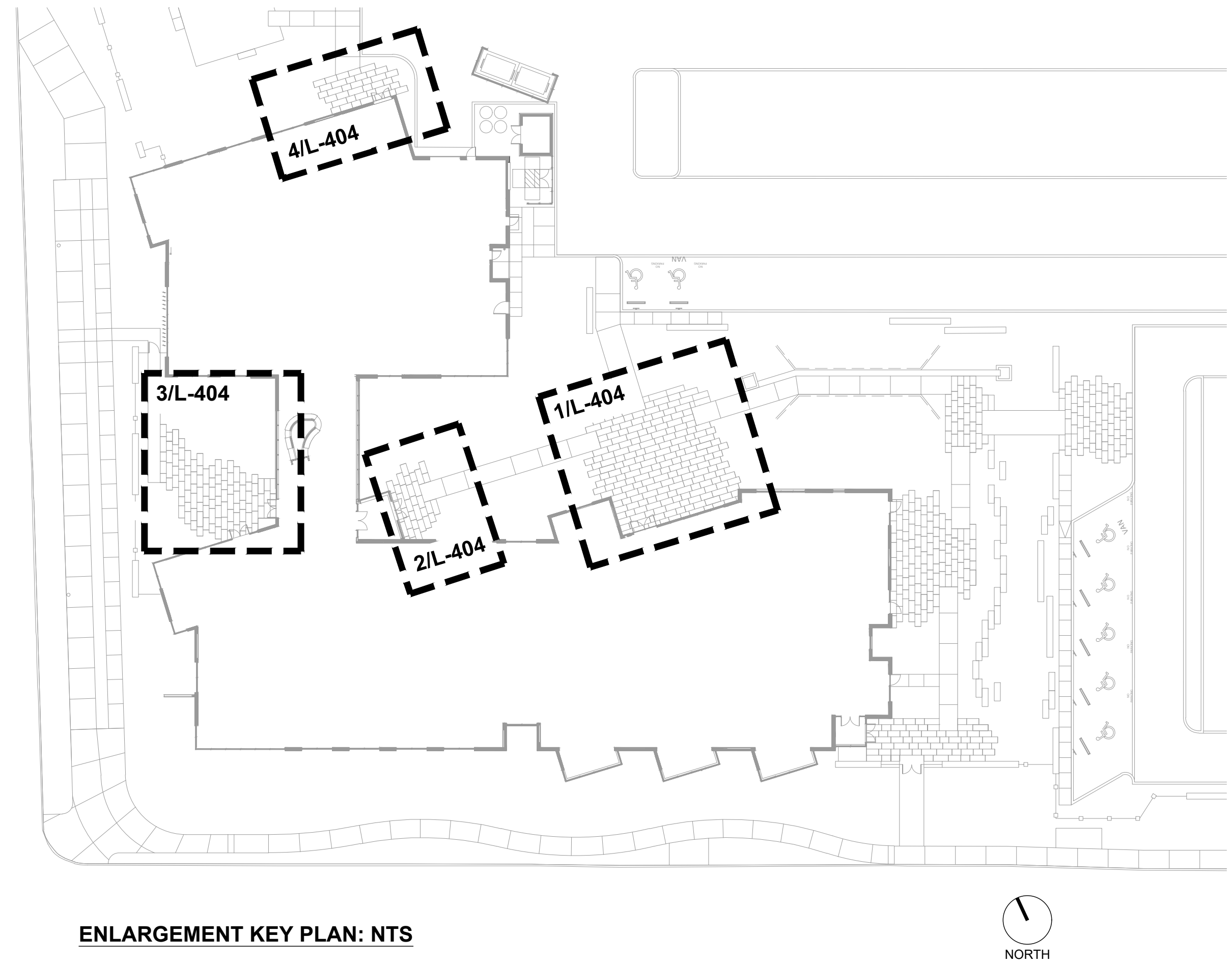
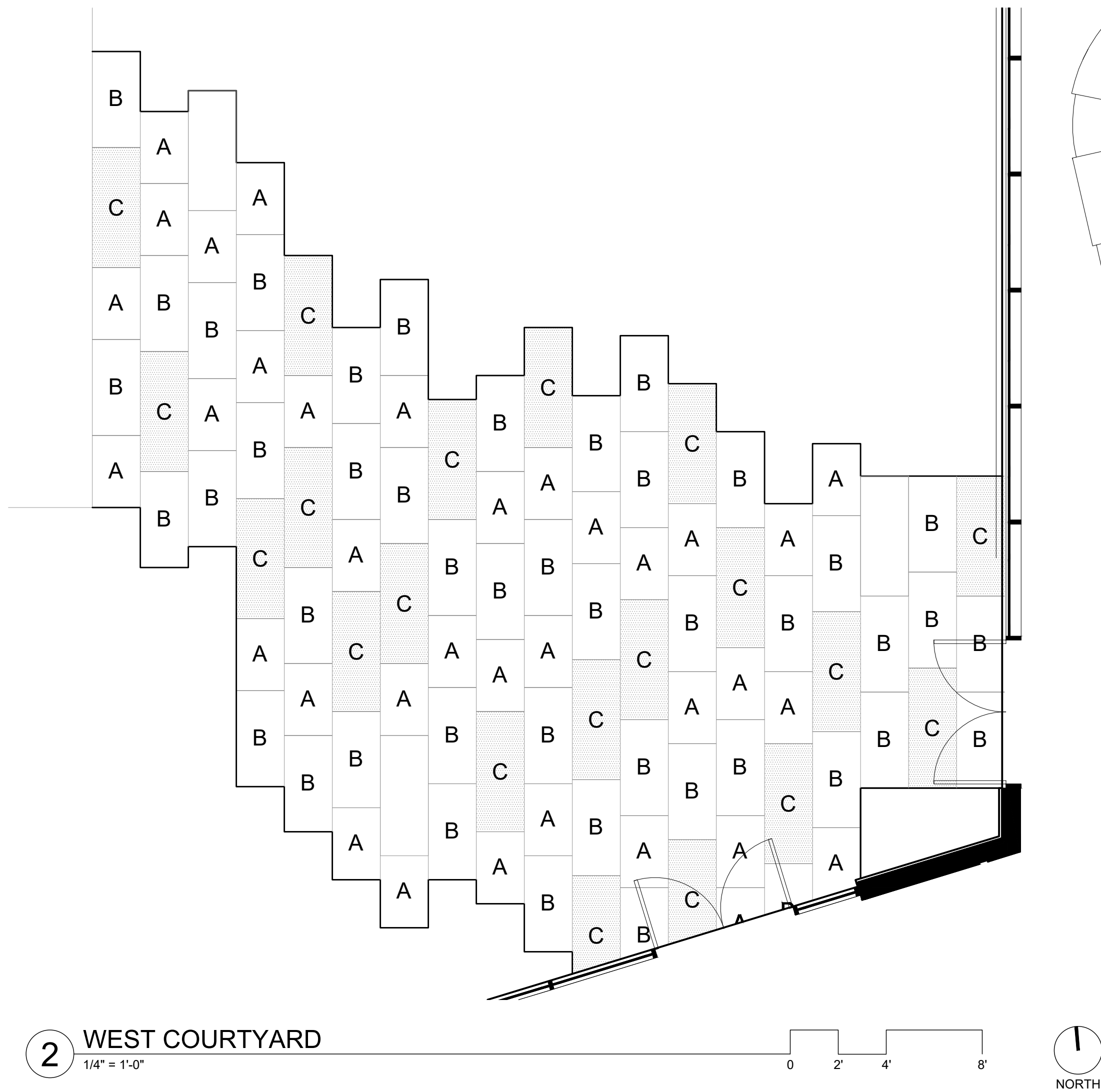
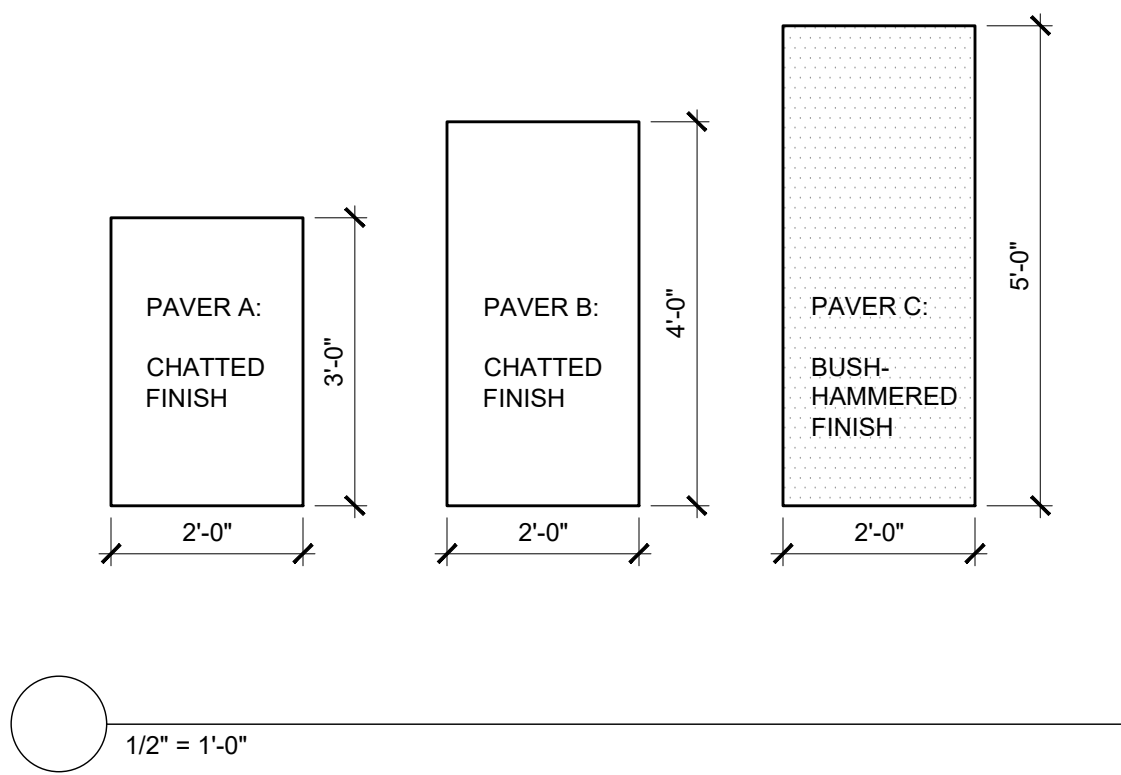
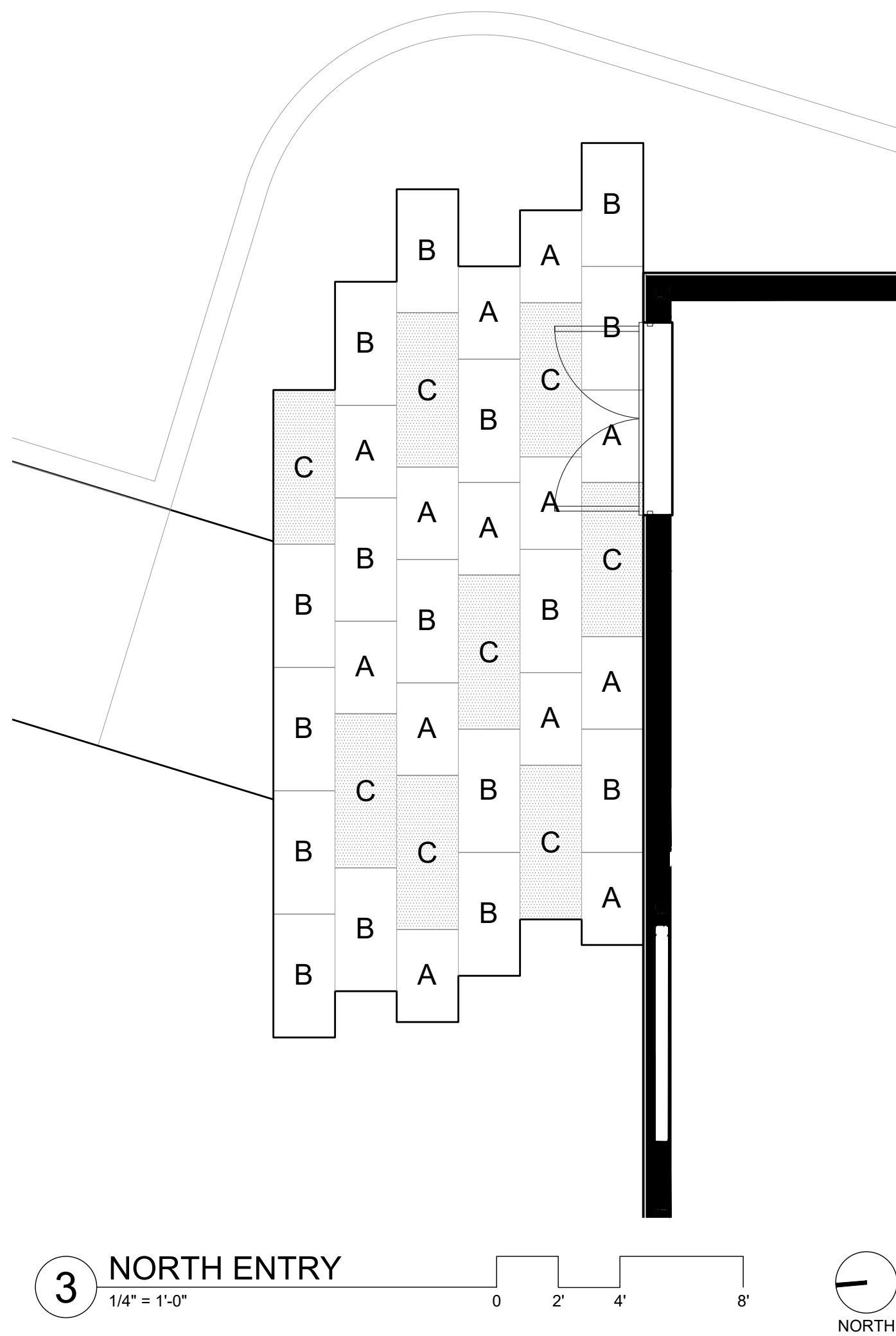
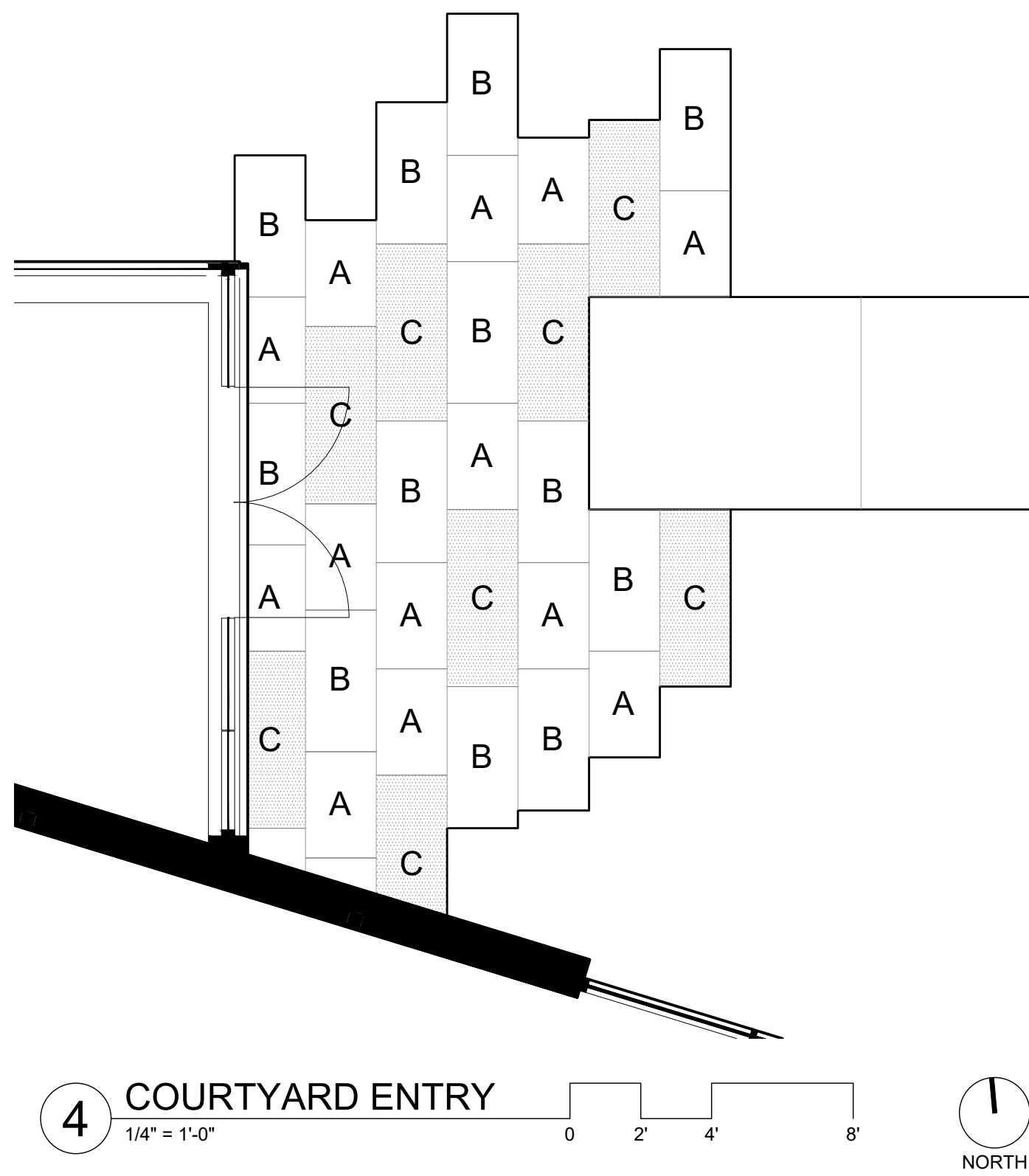


2 EAST COURTYARD
1/4" = 1'-0"



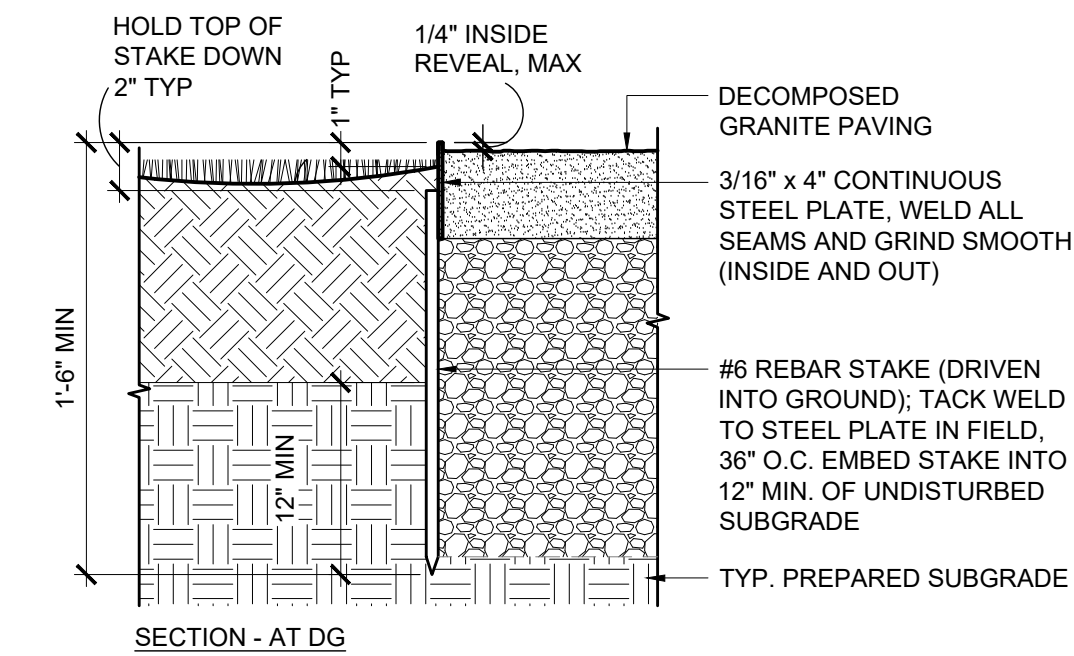
1 GUEST PARKING ENTRY
1/4" = 1'-0"





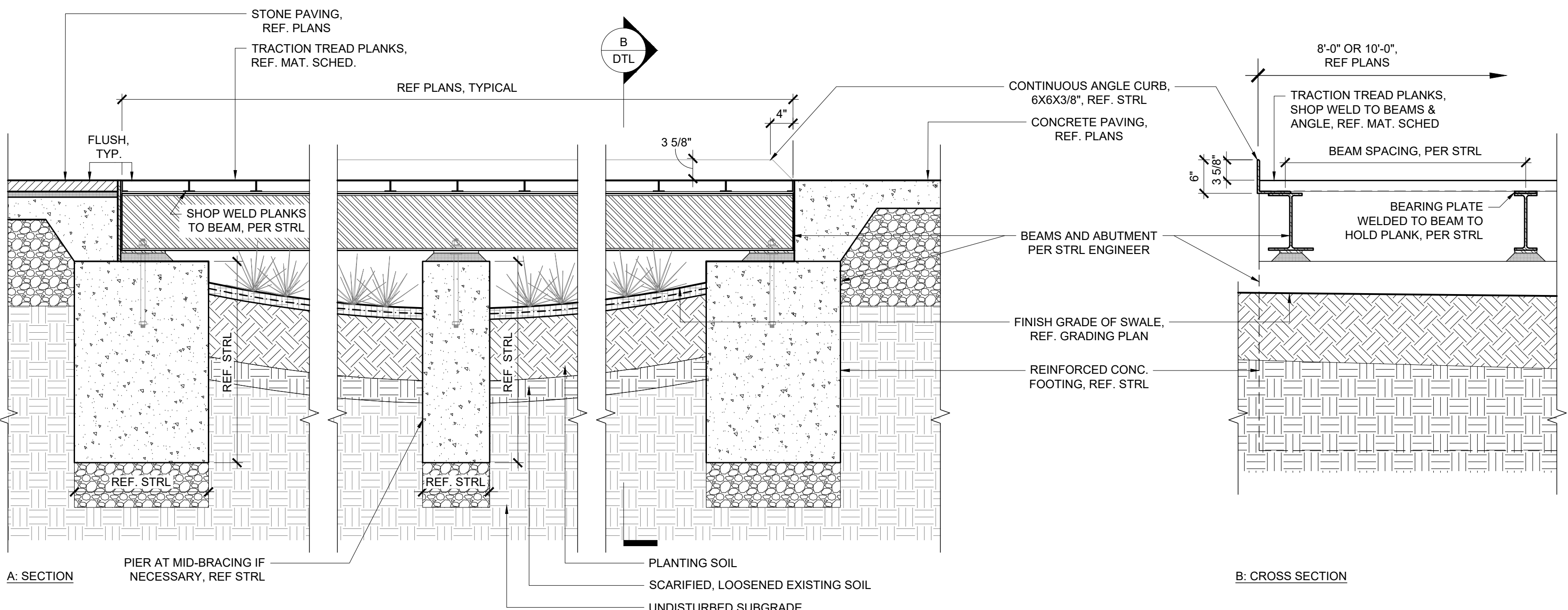
- NOTES:
1. PROVIDE SHOP DRAWINGS FOR LA APPROVAL PRIOR TO FABRICATION
 2. WELD ALL SEAMS AND GRIND SMOOTH, TYPICAL

- NOTES:
1. CONTRACTOR TO USE FULL PIECES, NO PIECES SHALL BE LESS THAN 48" IN LENGTH



13 STEEL EDGE

1 1/2" = 1'-0"

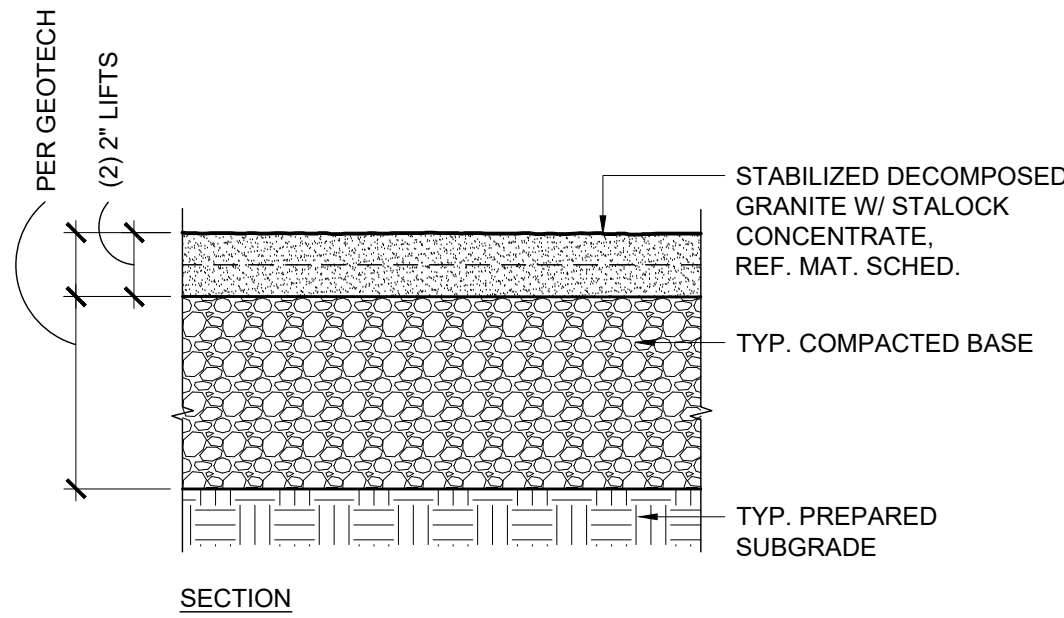


12 STEEL BRIDGE: PEDESTRIAN

3/4" = 1'-0"

NOTES:

1. STABILIZED DECOMPOSED GRANITE TO BE SPREAD IN TWO 2" LIFTS, FOR A TOTAL COMPACTED THICKNESS OF 4", REFERENCE SPECIFICATIONS
2. INSTALL STALOCK CONCENTRATE PER MFR. RECOMMENDATIONS

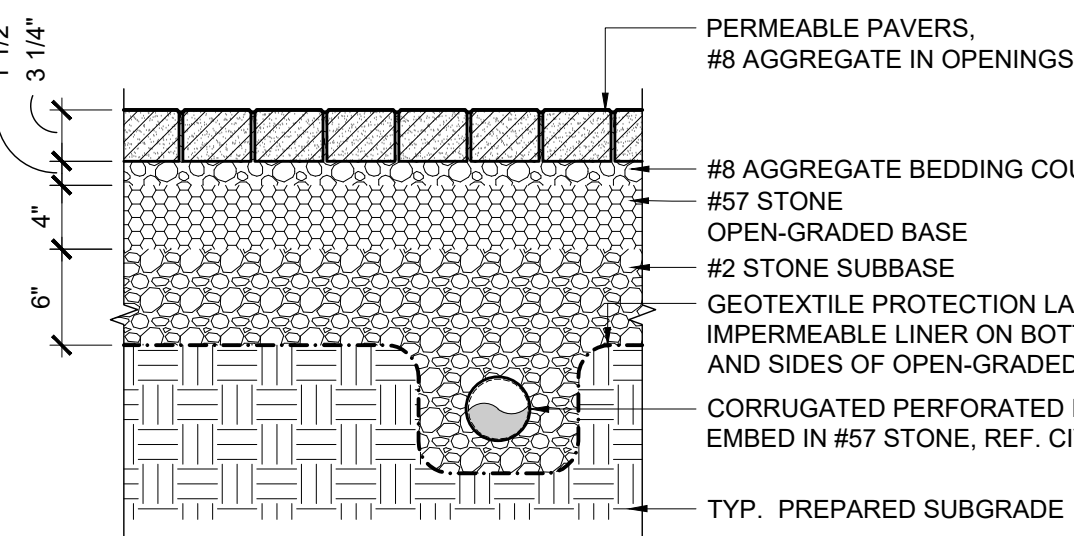


11 STABILIZED DG - PEDESTRIAN

1" = 1'-0"

NOTES:

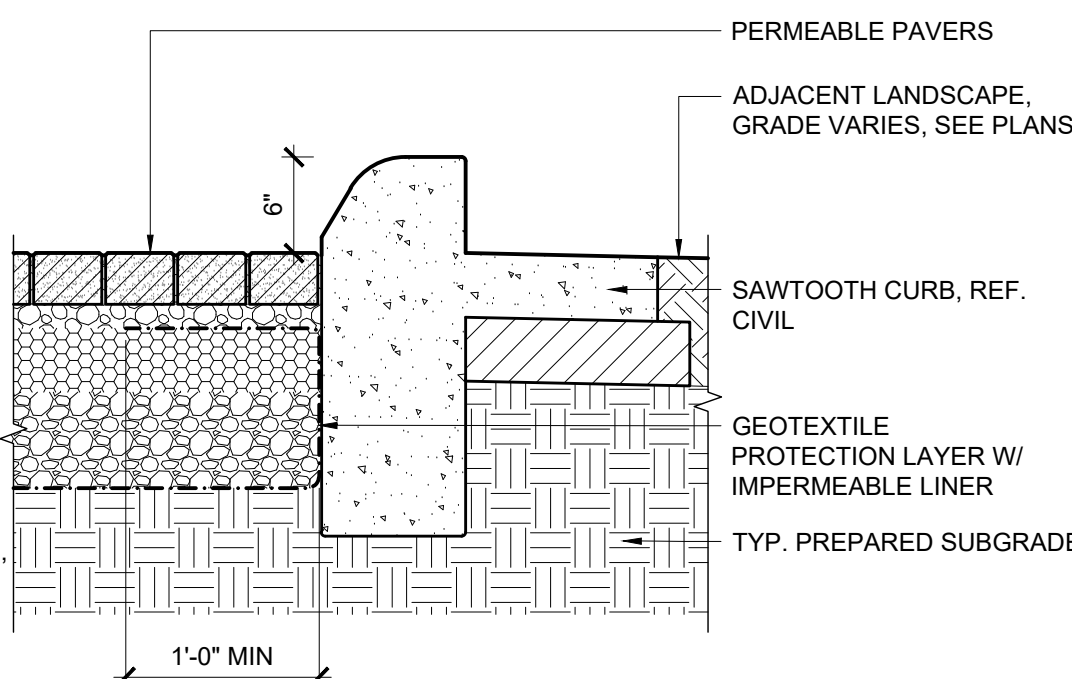
1. REF. SARA SPECS FOR ADDITIONAL INFORMATION



SECTION - TYPICAL

9 PERMEABLE UNIT PAVERS

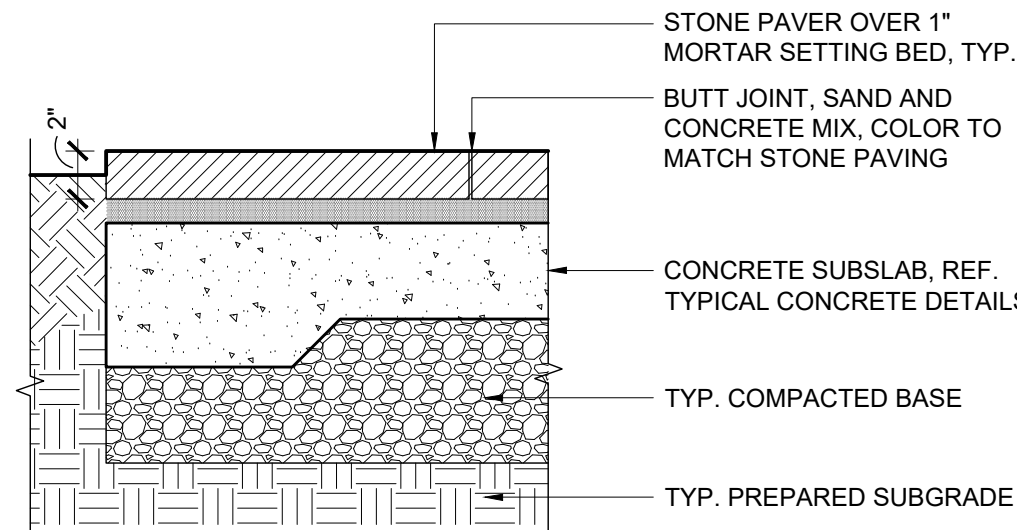
1" = 1'-0"



SECTION - @ CONCRETE CURB

NOTES:

1. PAVING DIMENSIONS AND PATTERNING VARY. SEE PLAN.
2. REFER TO GEOTECHNICAL REPORT FOR PAVING AND AGGREGATE BASE DEPTHS, AND COMPACTION REQUIREMENTS.



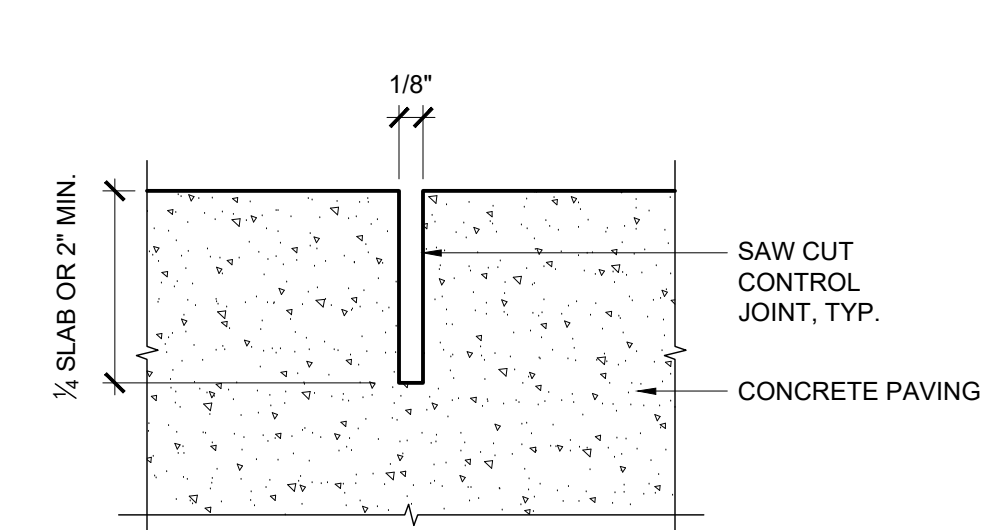
SECTION

8 CUT STONE PAVING

1 1/2" = 1'-0"

NOTES:

1. SEE SPECIFICATIONS FOR MOCK-UP REQUIREMENTS
2. SEE JOINTING PLAN FOR JOINT LAYOUT
3. SAW CUT JOINTS SHALL BE STRAIGHT AND CONTINUOUS



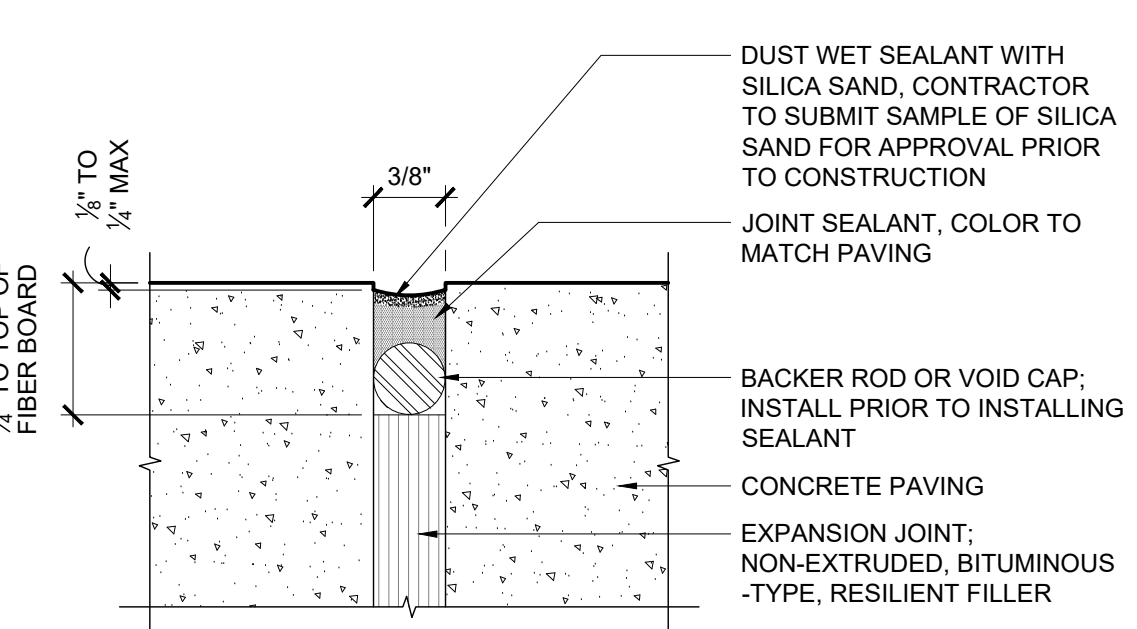
SECTION

7 SAWCUT CONTROL JOINT

FULL SCALE

NOTES:

1. CONTRACTOR SHALL SUBMIT SAMPLES OF JOINT SEALANT COLOR & BUILD MOCK-UP FOR LANDSCAPE ARCHITECT APPROVAL PRIOR TO CONSTRUCTION



6 EXPANSION JOINT ENLARGEMENT

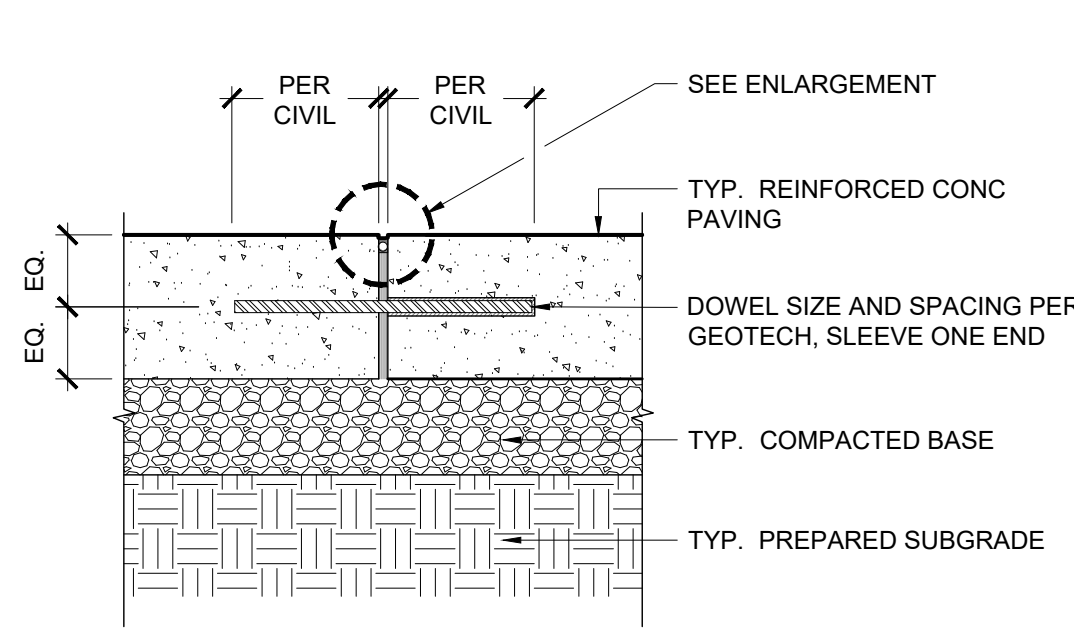
FULL SCALE

10 NOT USED

1" = 1'-0"

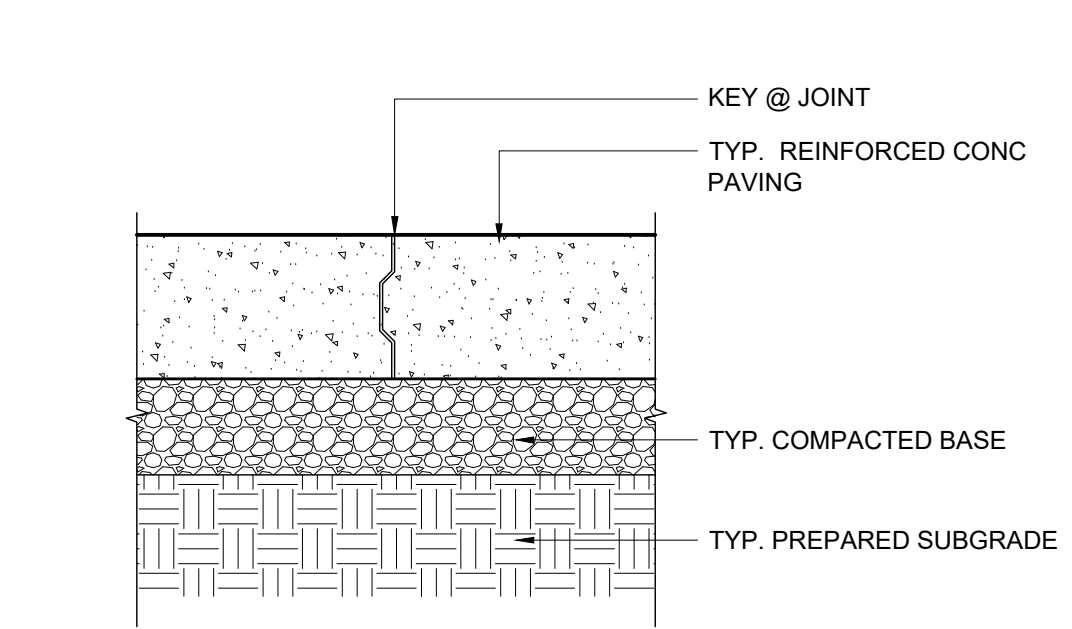
NOTES:

1. DO NOT TOOL CONCRETE EDGE.
2. REINF. MAT SHALL NOT EXTEND ACROSS EXP JOINT, U.O.N. PER GEOTECH.



4 EXPANSION JOINT - TYPICAL

1 1/2" = 1'-0"

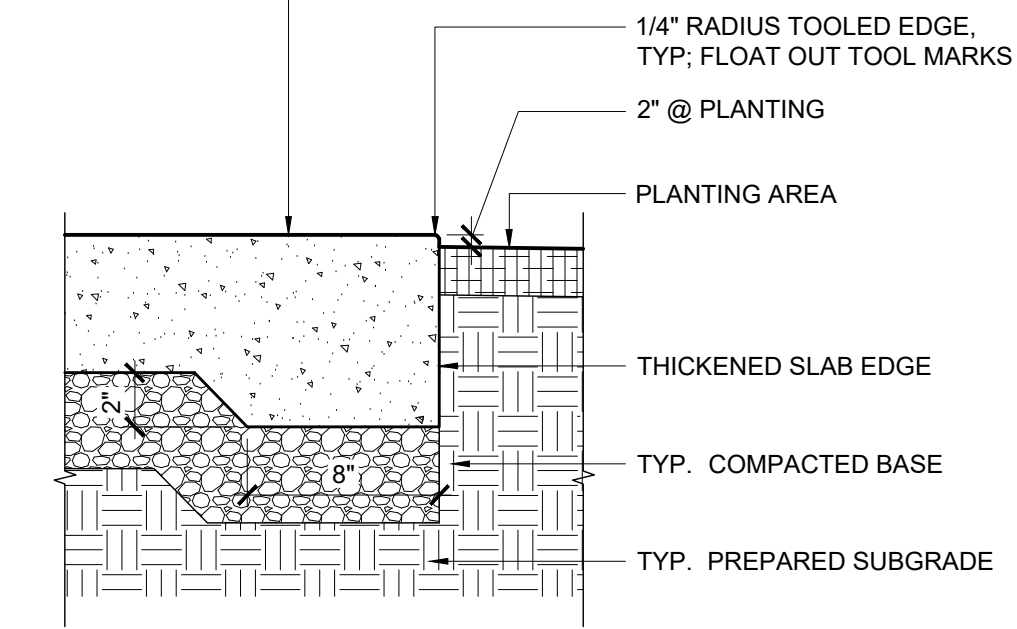


3 CONSTRUCTION JOINT - TYPICAL

1 1/2" = 1'-0"

NOTES:

1. PROVIDE DOWELED EXP JOINT AT BUILDING PER GEOTECH RECOMMENDATIONS.
2. PROVIDE 1/4" ELEVATION CHANGE AT ALL THRESHOLDS U.O.N.

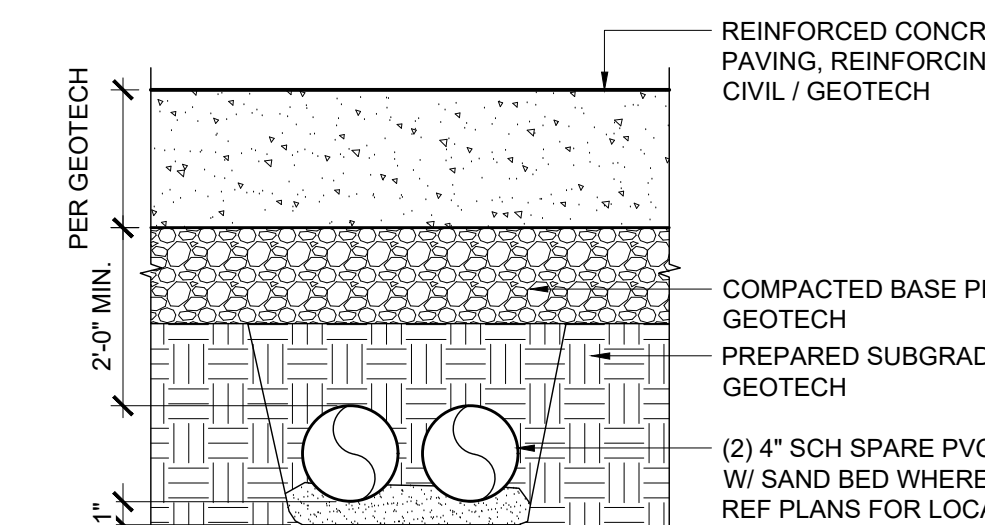


2 CONCRETE SLAB EDGE

1 1/2" = 1'-0"

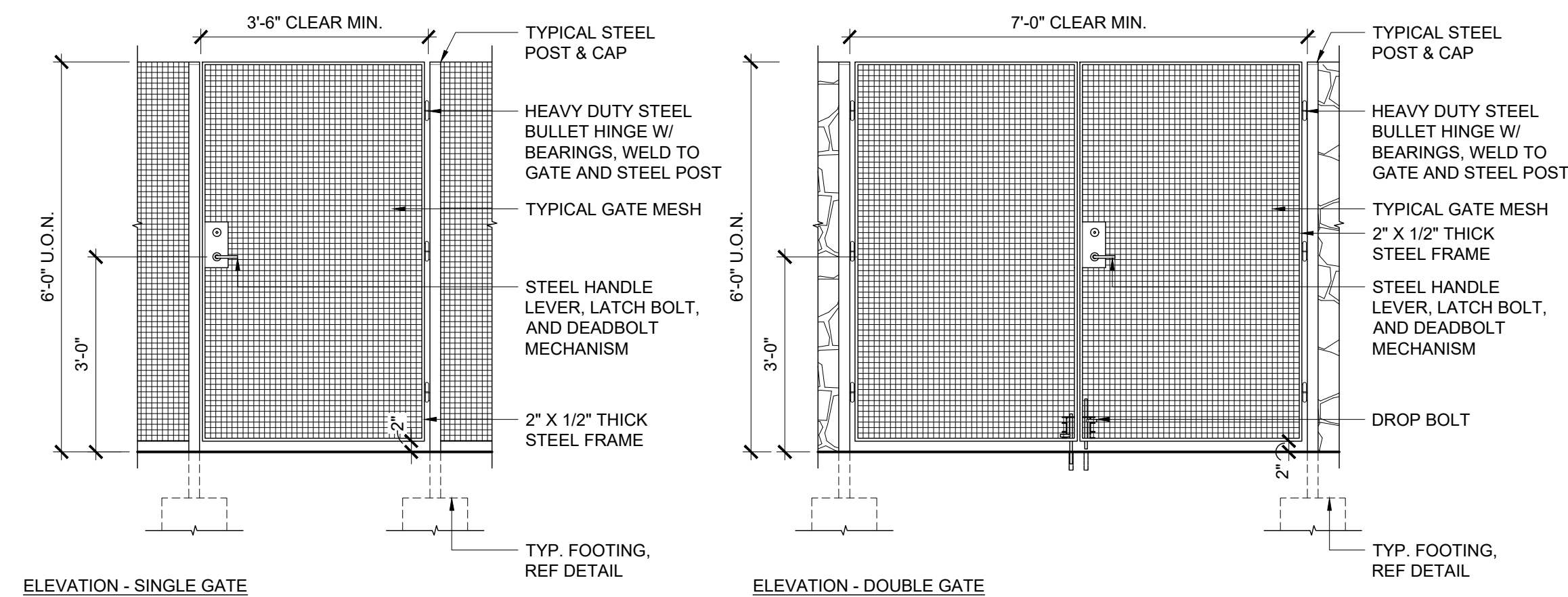
TYPICAL PAVING NOTES:

1. REF GEOTECH FOR SUBGRADE PREPARATION, BASE MATERIAL & DEPTH, AND PAVING DEPTH & REINFORCING. CONTRACTOR SHALL MEET OR EXCEED ALL PAVING RECOMMENDATIONS
2. ALL CONCRETE WITHIN ACCESSIBLE ROUTES SHALL HAVE A 4.9% MAX SLOPE, UNLESS OTHERWISE INDICATED AS A RAMP. CROSS SLOPE SHALL BE NO GREATER THAN 2% AND NO LESS THAN 0.5%.
3. FINISHED GRADES AT ADJACENT PAVING SHALL NOT EXCEED +/- 1/2" ELEVATION.
4. CONCRETE FINISH AND COLOR PER PLANS & SPECIFICATIONS.

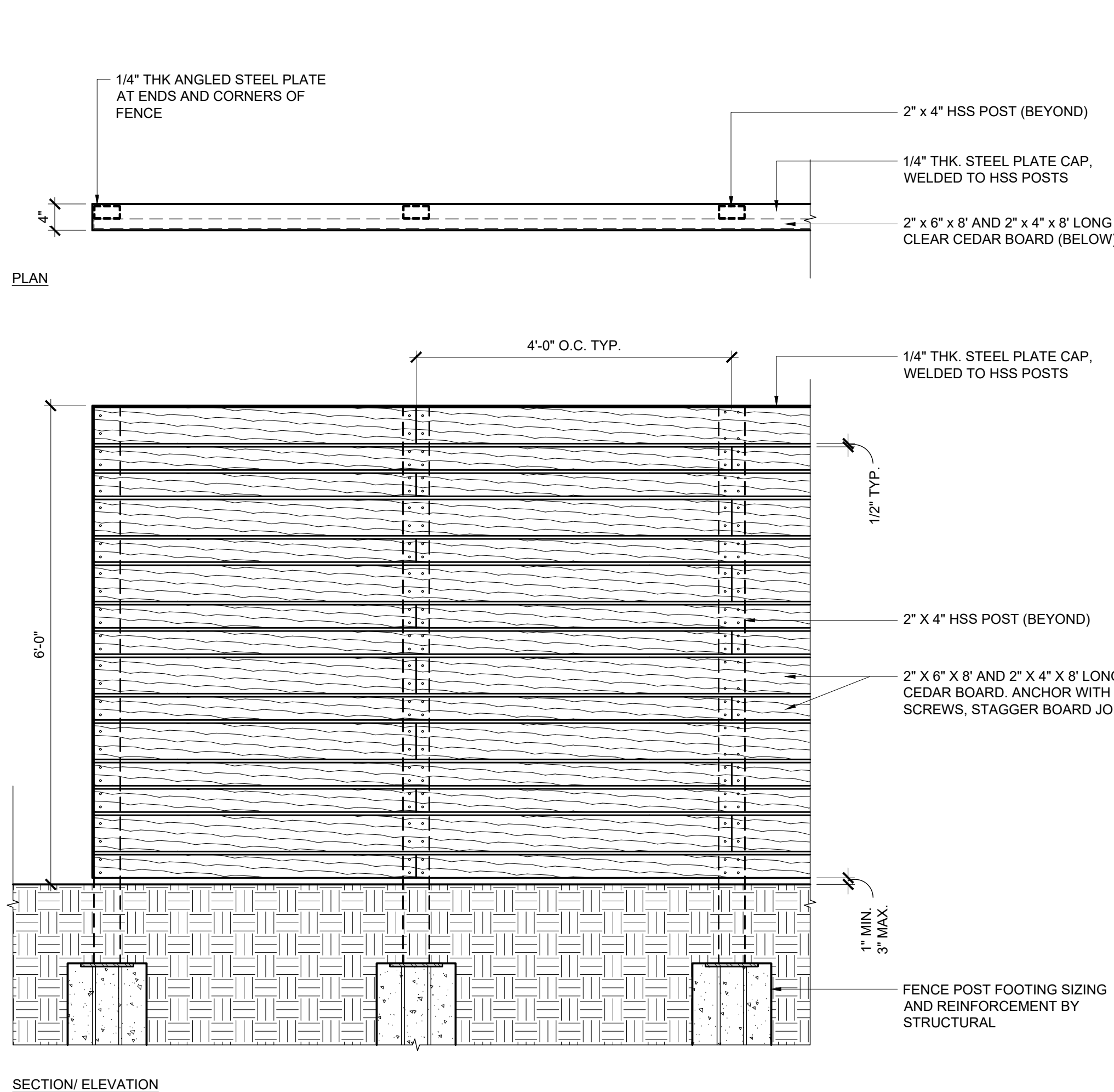


1 CONCRETE PAVING - TYPICAL

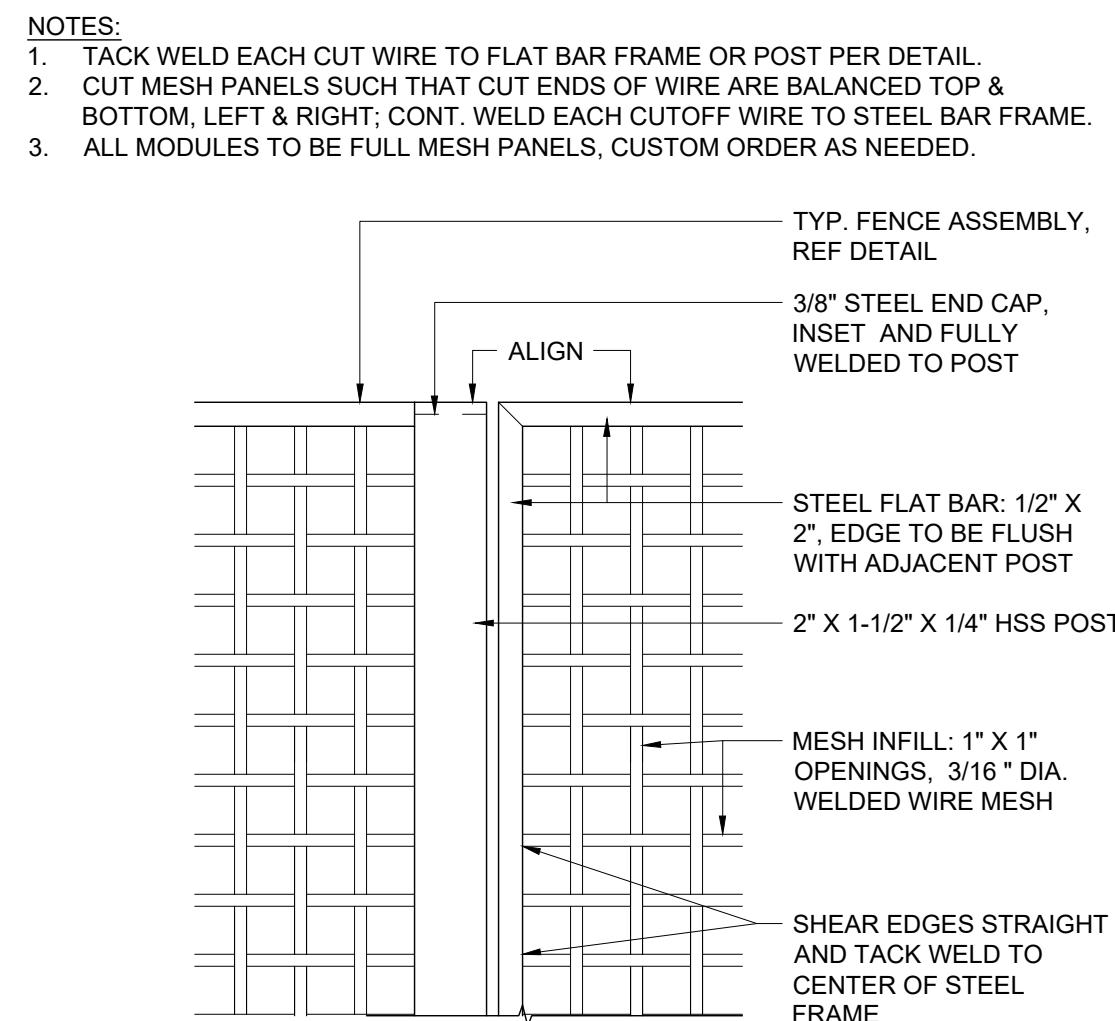
1 1/2" = 1'-0"



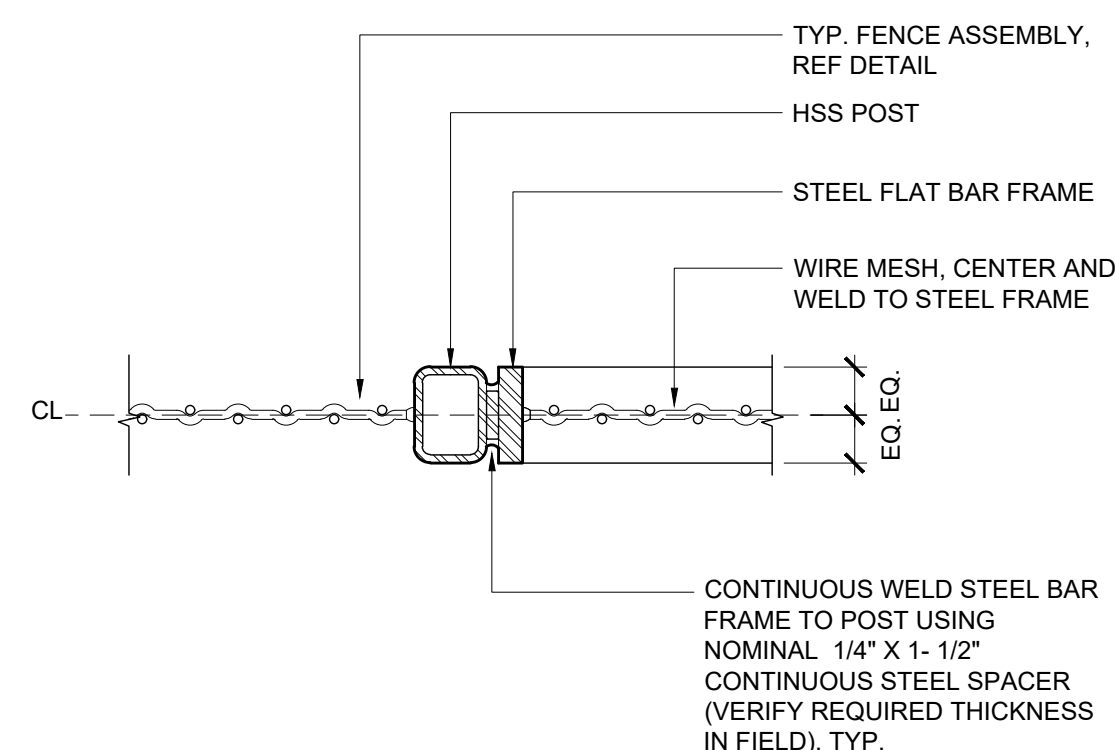
6 WOVEN WIRE MESH PED. GATE
1/2" = 1'-0"



5 WOOD PERIMETER FENCE
3/4" = 1'-0"

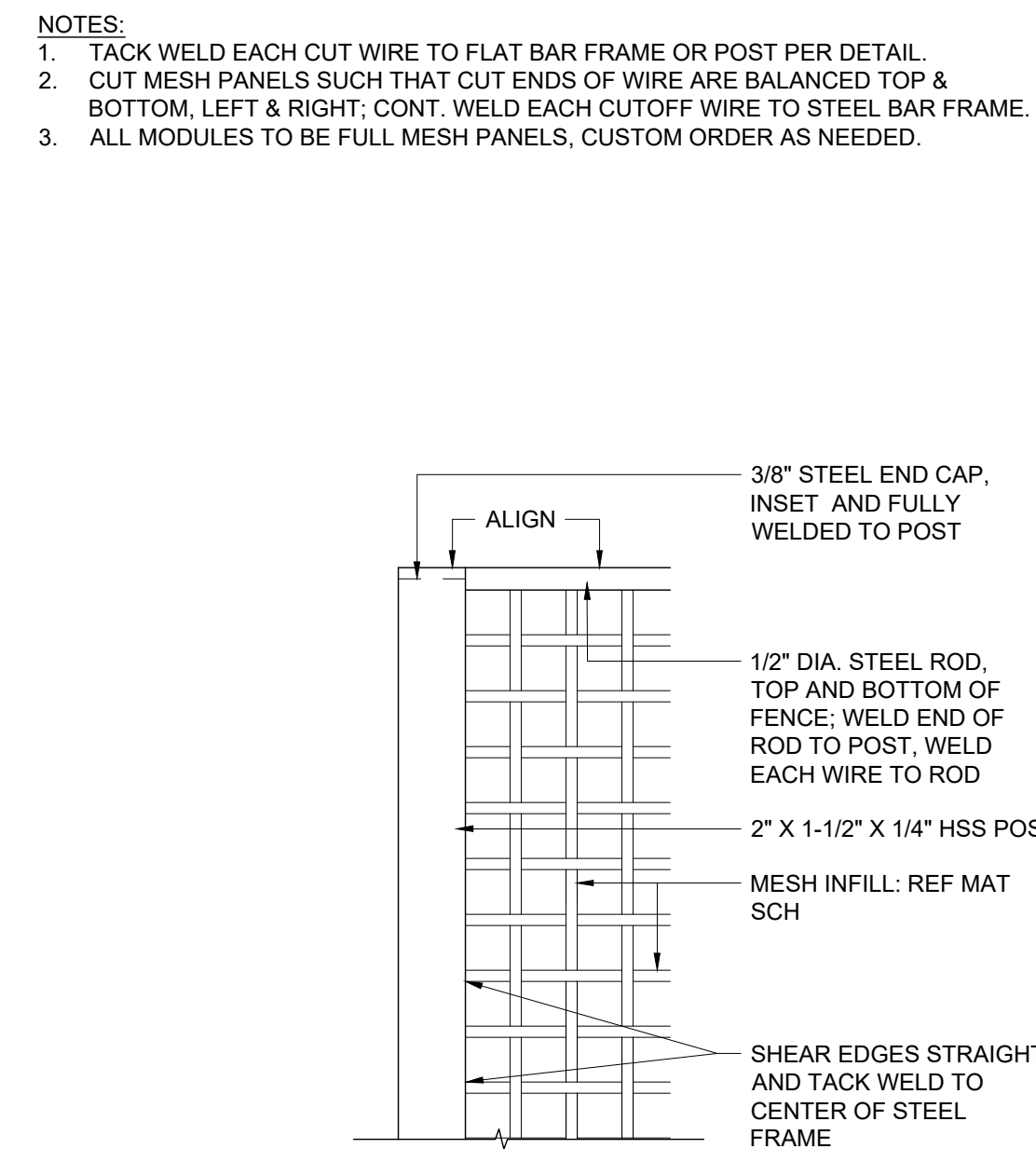


ELEVATION @ GATE

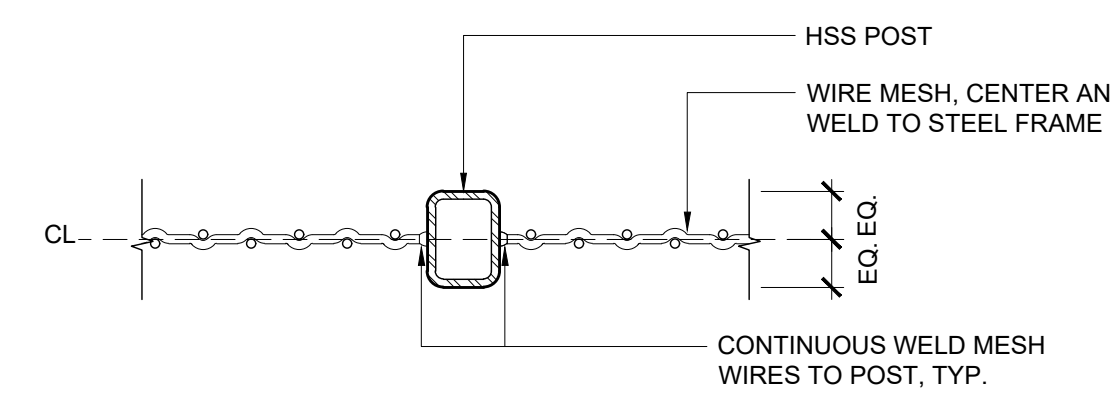


PLAN @ POST

4 GATE ASSEMBLY, TYP.
3" = 1'-0"



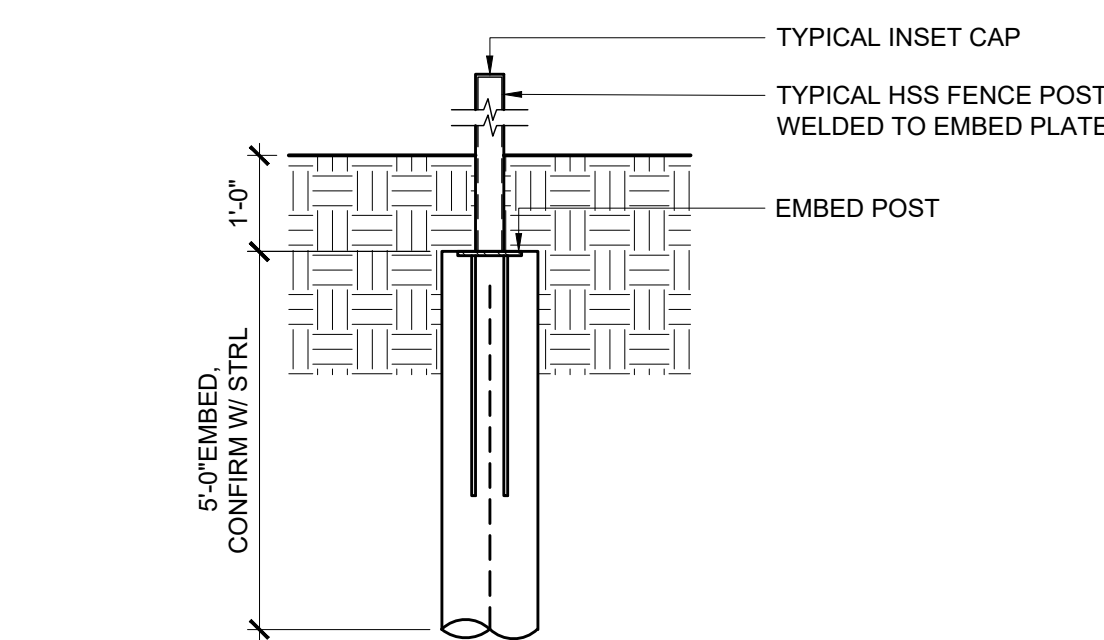
ELEVATION, TYP.



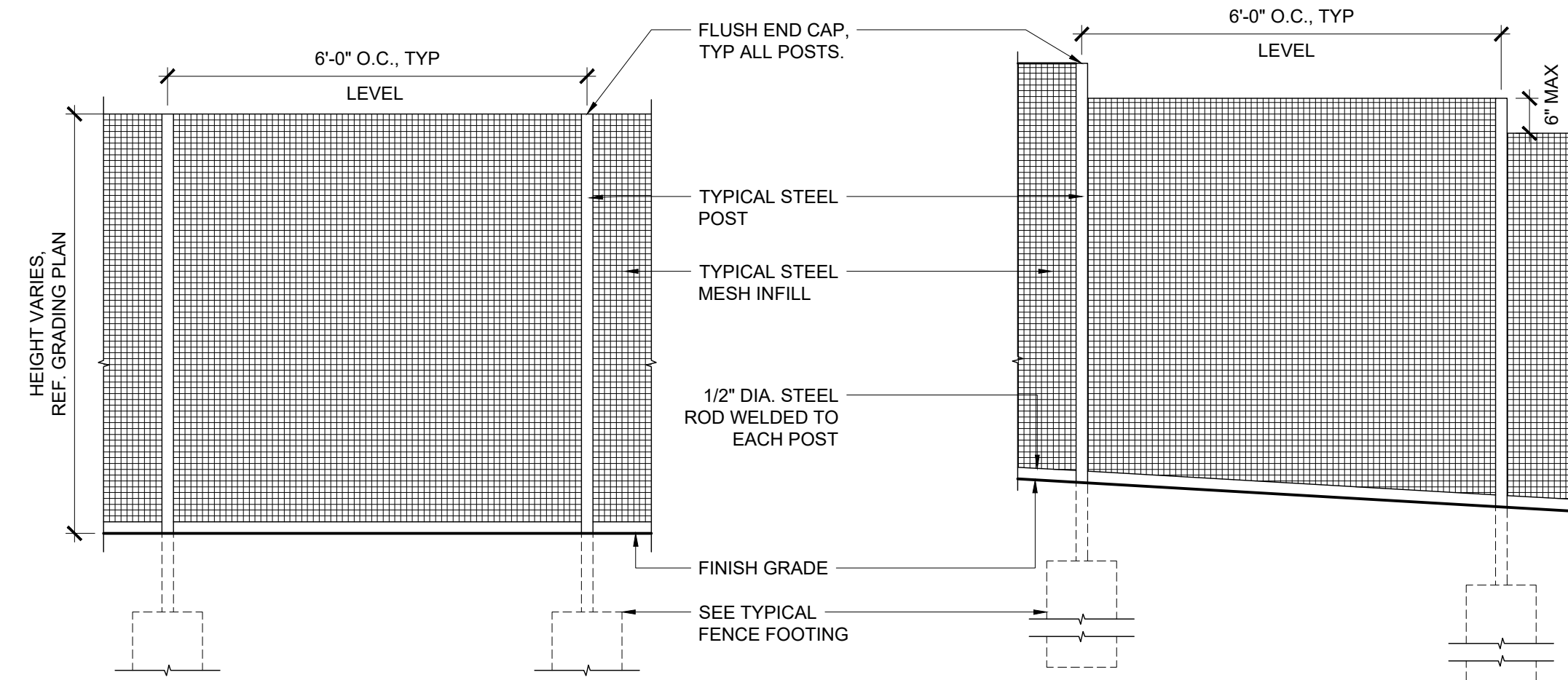
PLAN @ TYP. FENCE POST

3 FENCE ASSEMBLY, TYP.
3" = 1'-0"

- NOTES:
- SUBMIT SHOP DRAWINGS FOR LA APPROVAL PRIOR TO FABRICATION OR INSTALLATION.
 - PROVIDE MOCK-UP FOR LA APPROVAL ON SITE PRIOR TO INSTALLATION.
 - ALL STEEL COMPONENTS SHALL BE PLAIN STEEL COATED WITH BOILED LINSEED OIL.
 - MITER ALL CORNERS, WELD ALL SEAMS, GRIND SMOOTH ALL WELDS, BURRS & SHARP EDGES.
 - WOVEN WIRE MESH SHALL BE CUT SO THAT ENDS ARE BALANCED TOP & BOTTOM, LEFT & RIGHT.

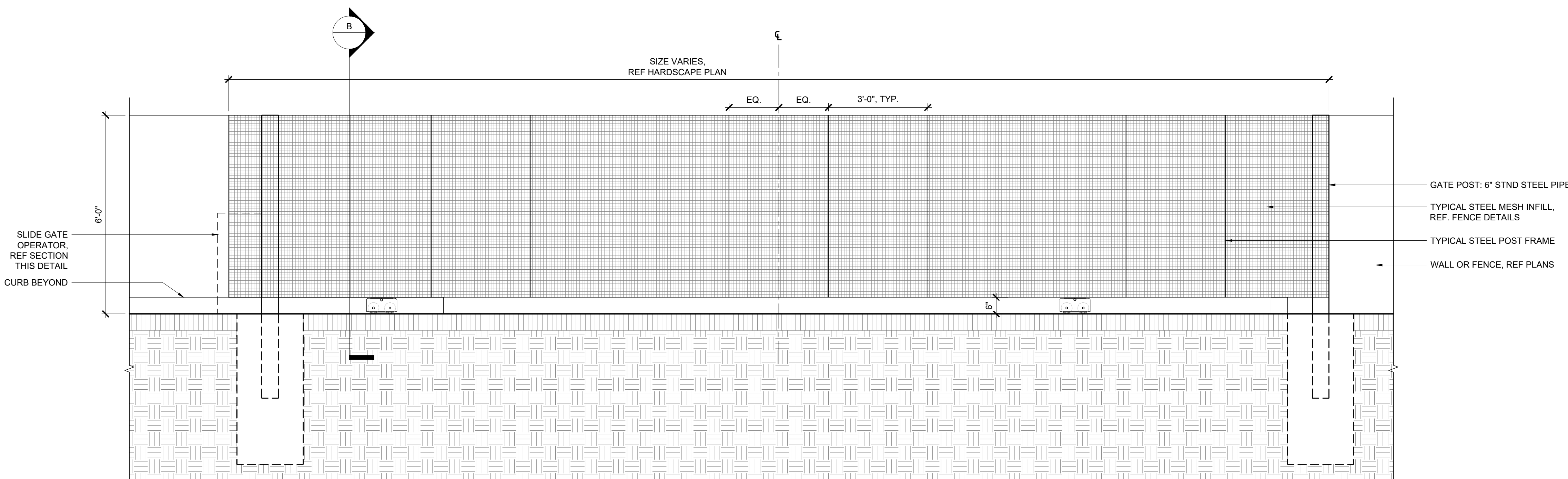


TYPICAL FENCE FOOTING



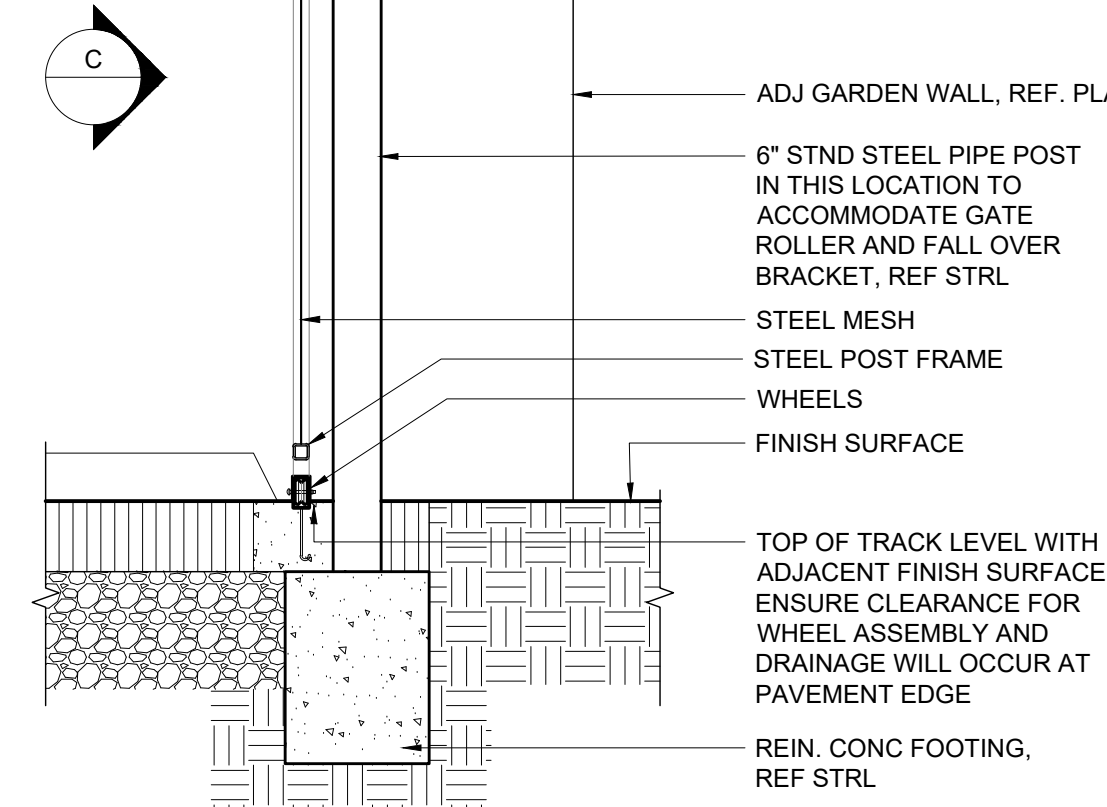
TYPICAL ELEVATION

2 WOVEN WIRE MESH FENCE
1/2" = 1'-0"

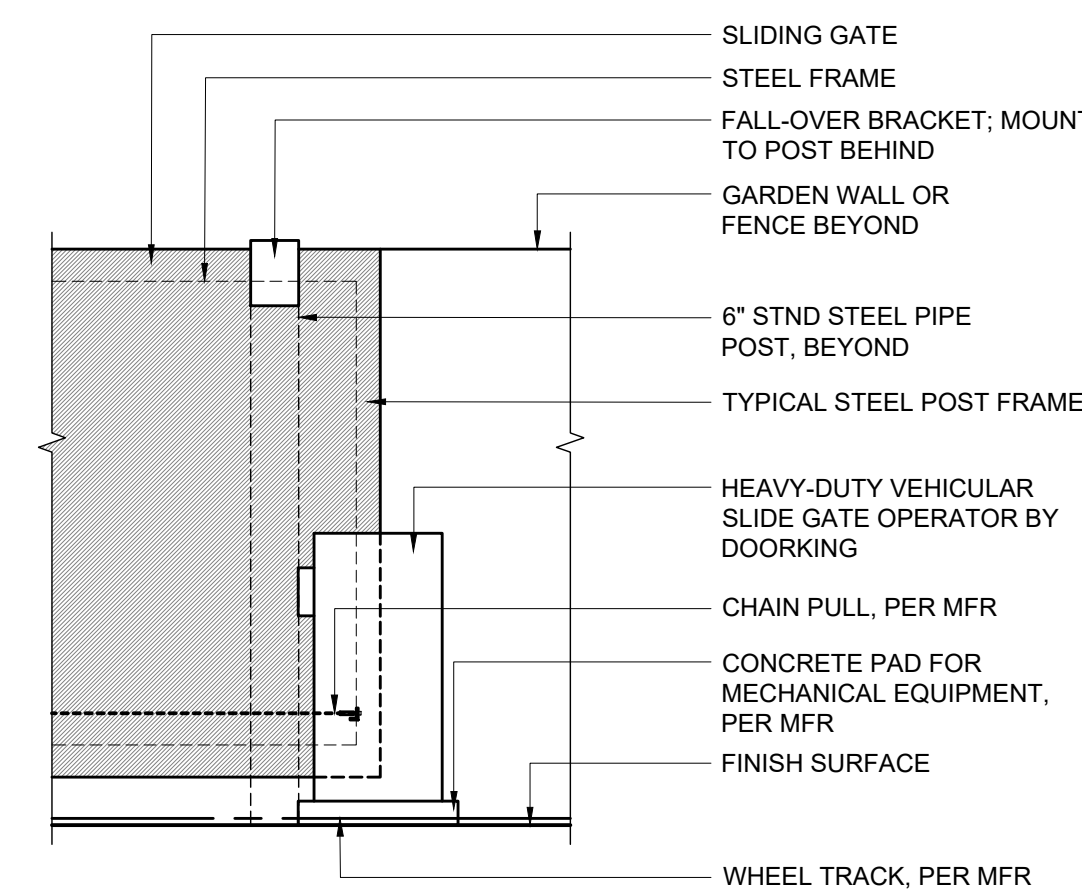


A: SECTION / ELEVATION

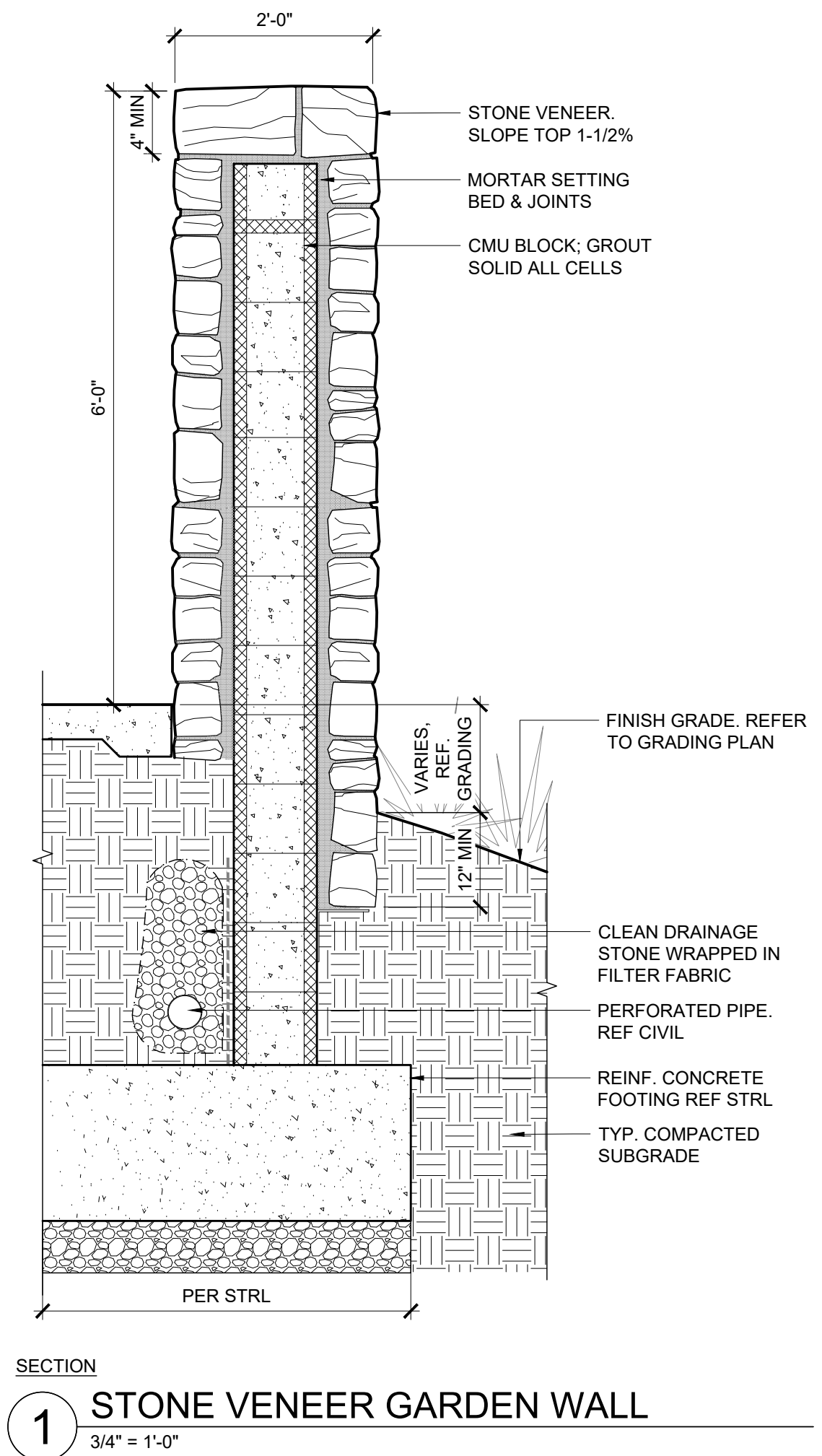
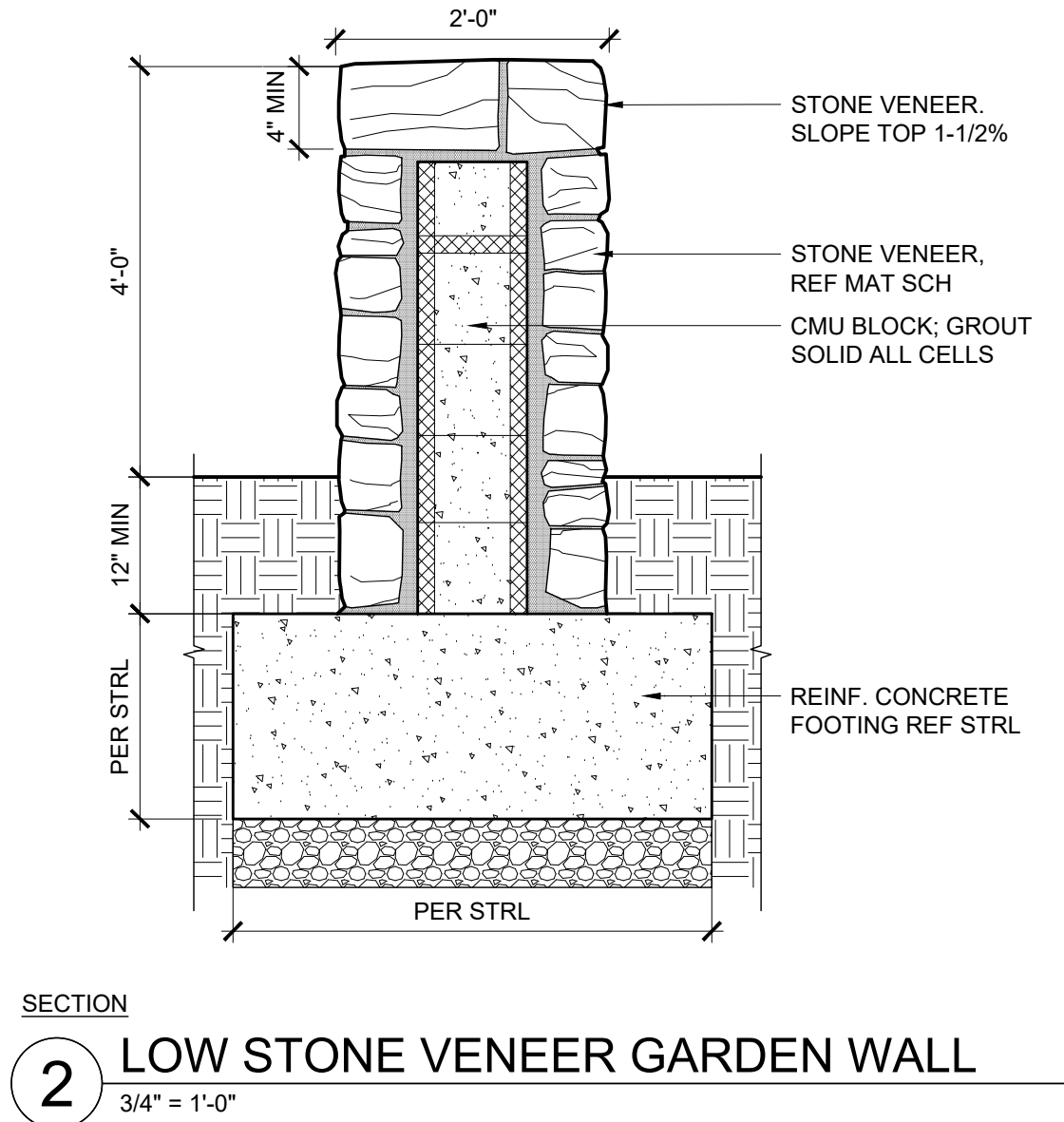
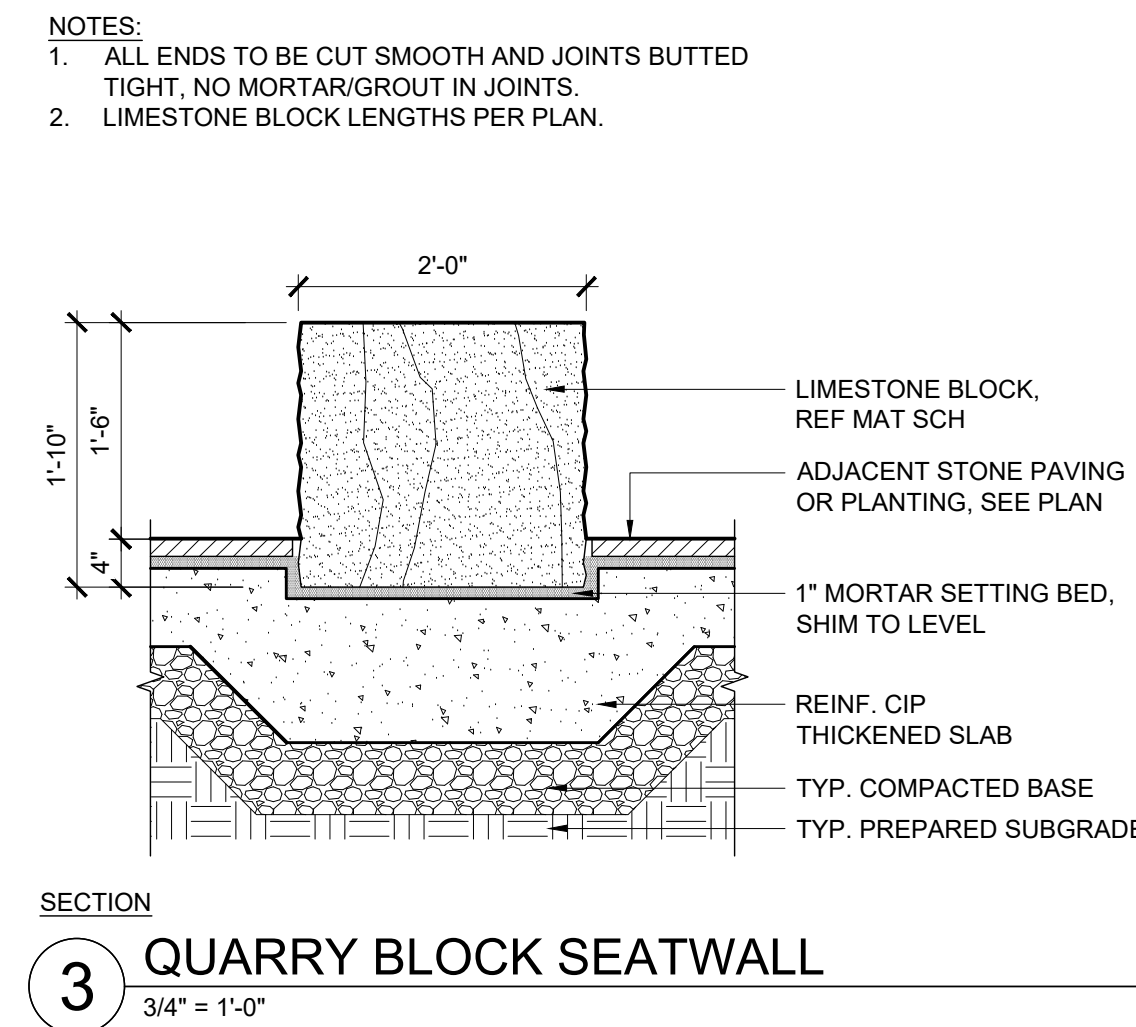
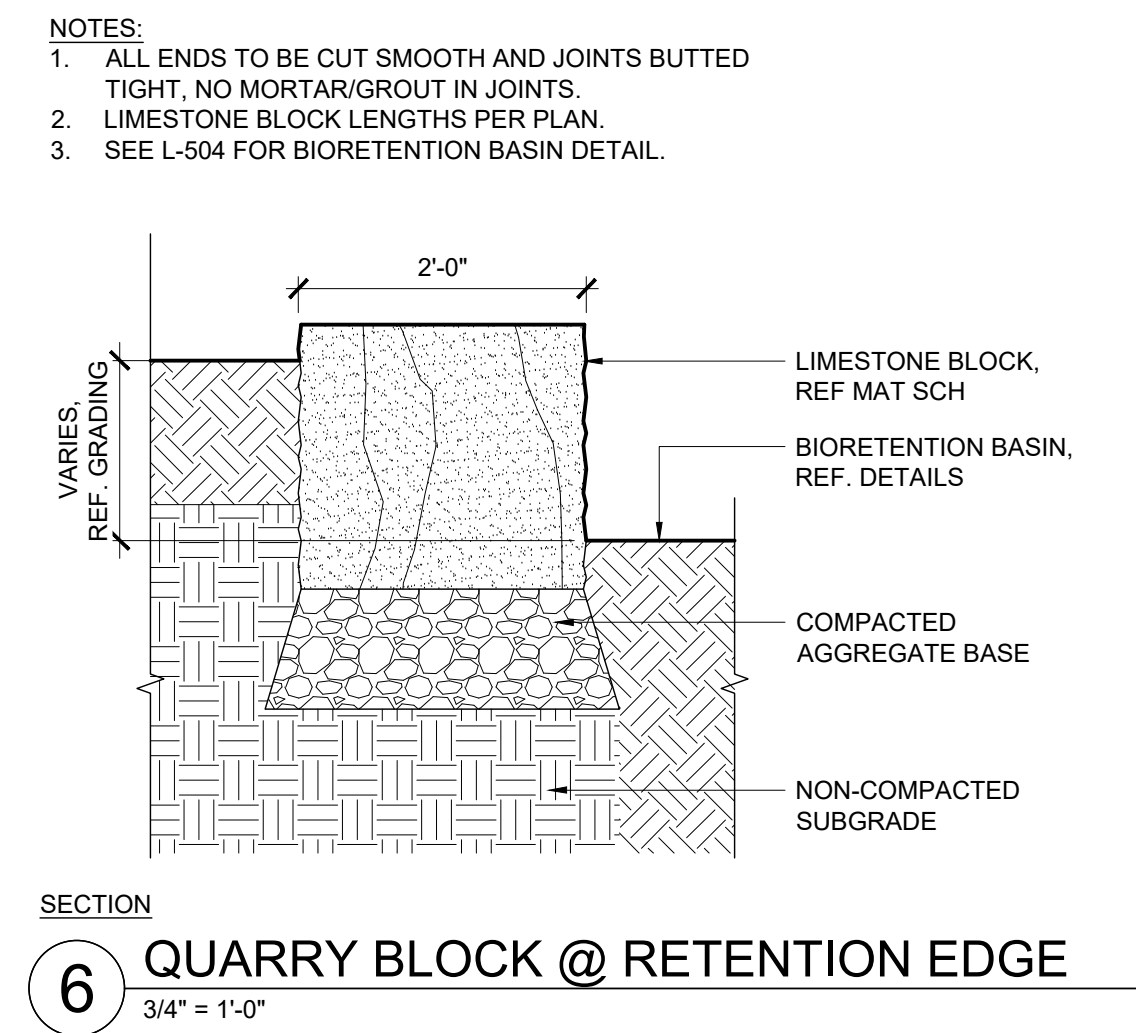
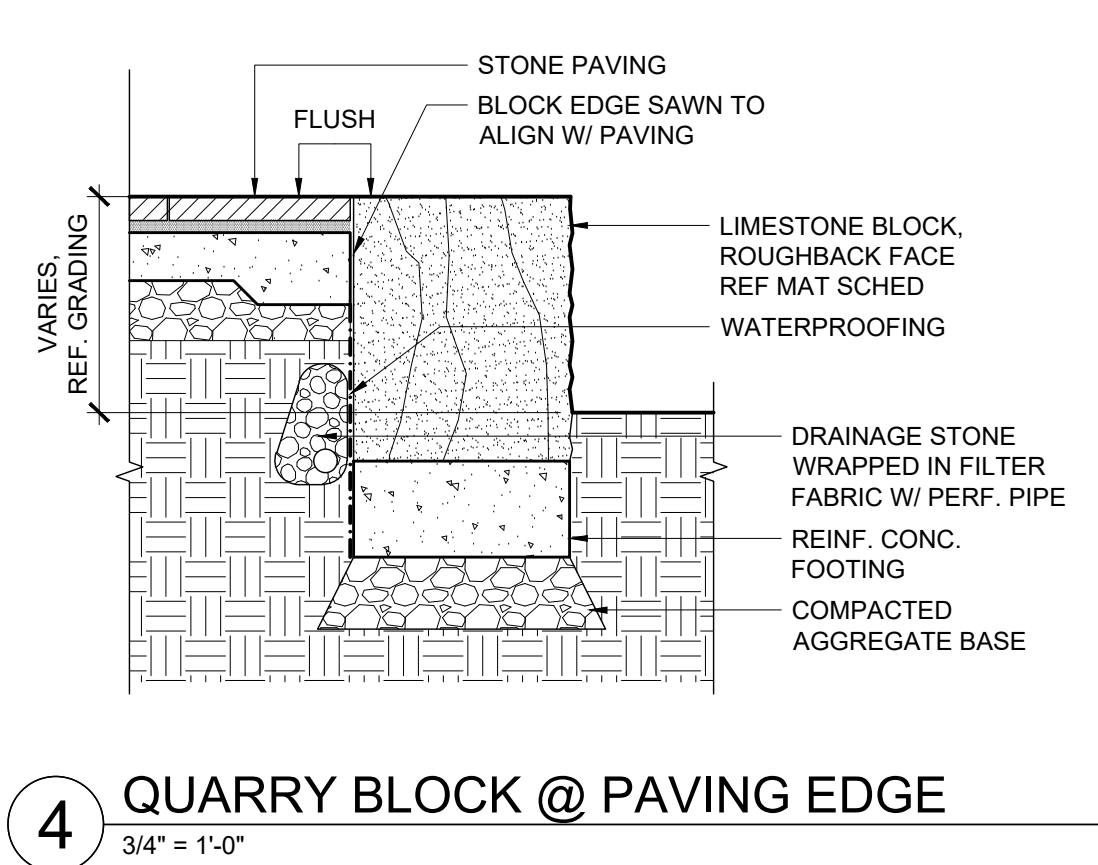
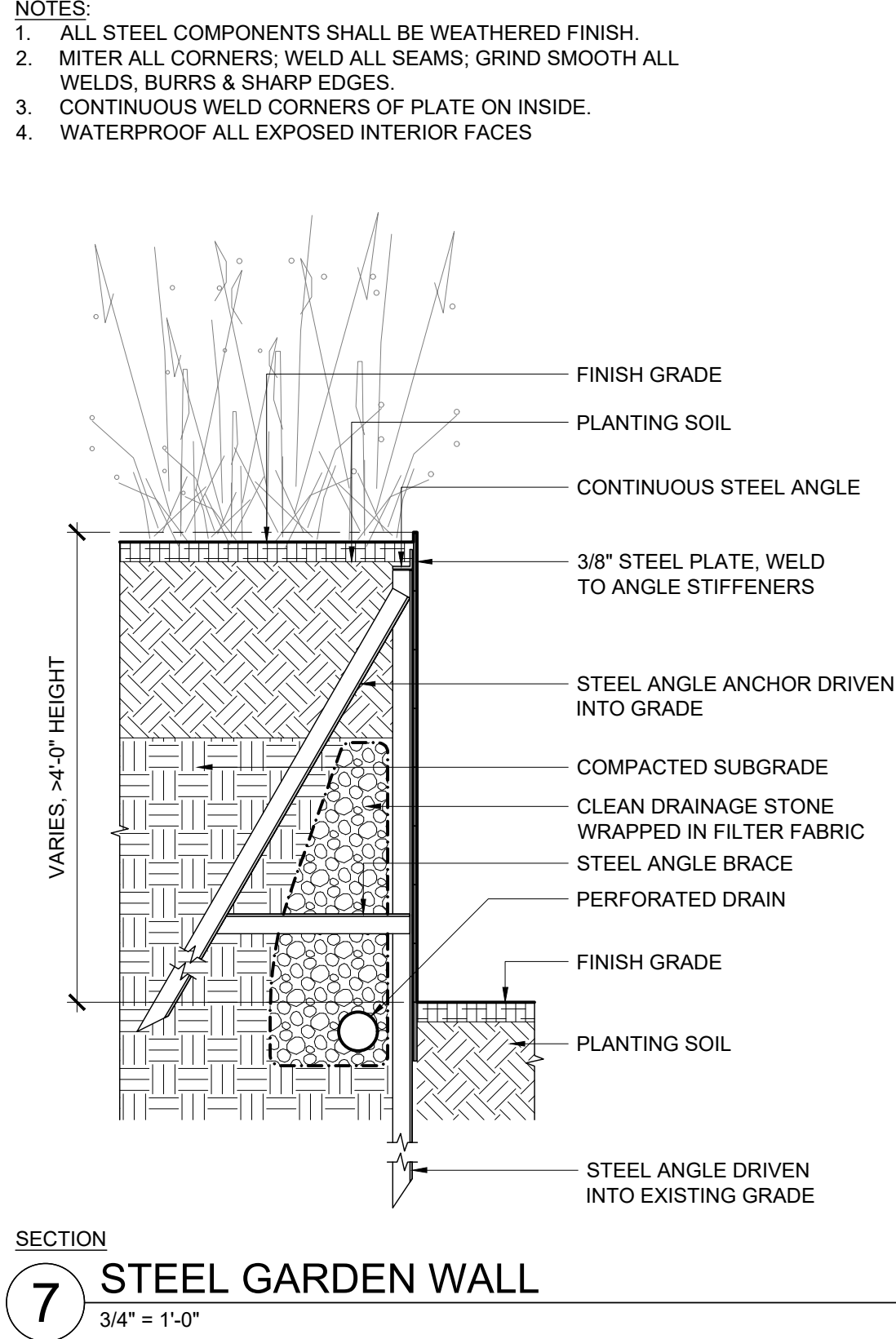
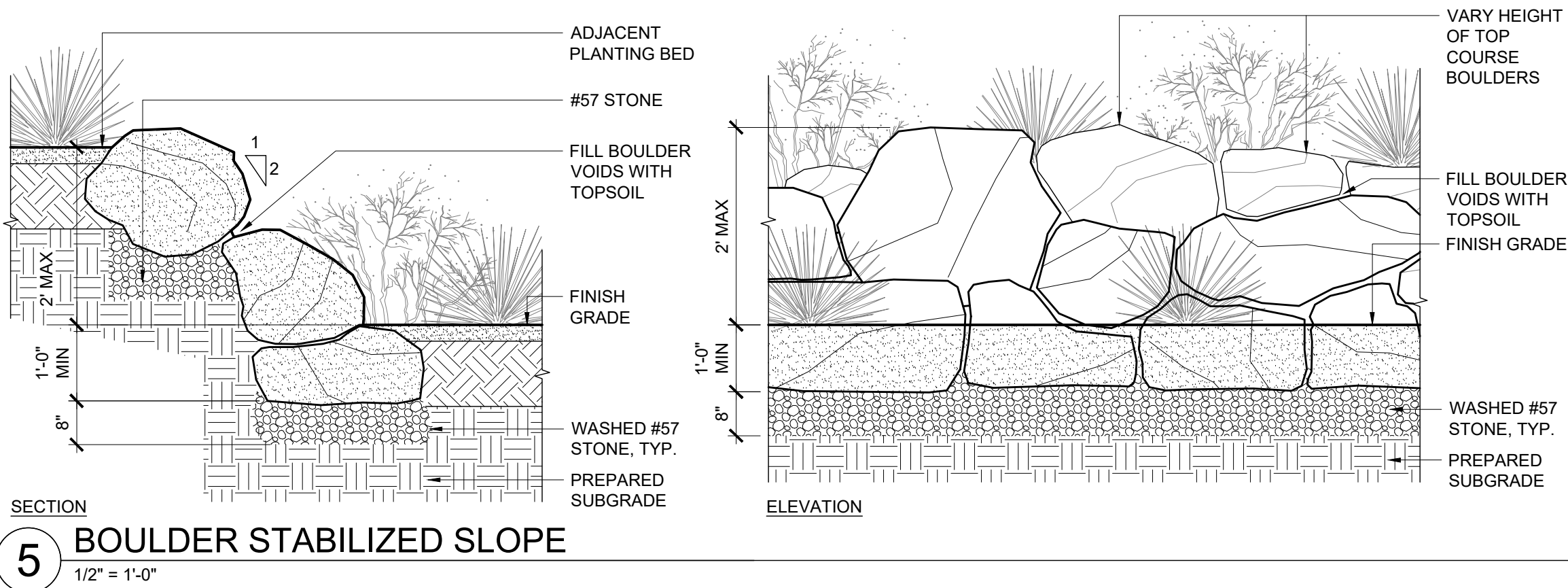
1 SLIDING VEHICULAR GATE
1/2" = 1'-0"



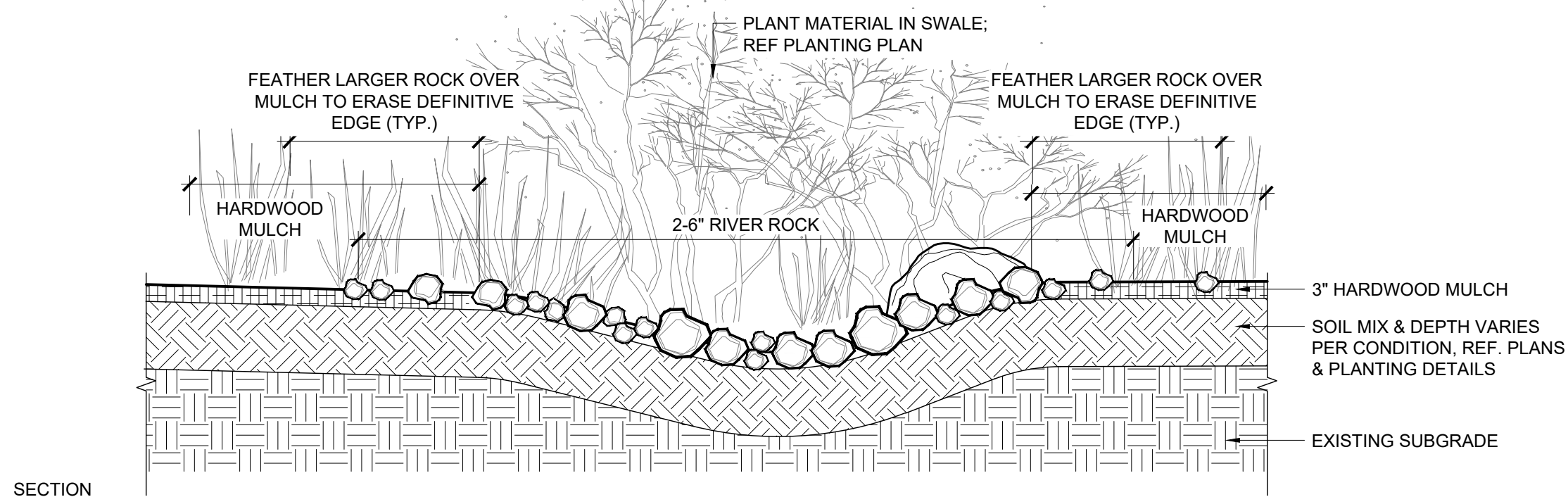
B: SECTION



C: ELEVATION ON MECHANISM SIDE OF GATE

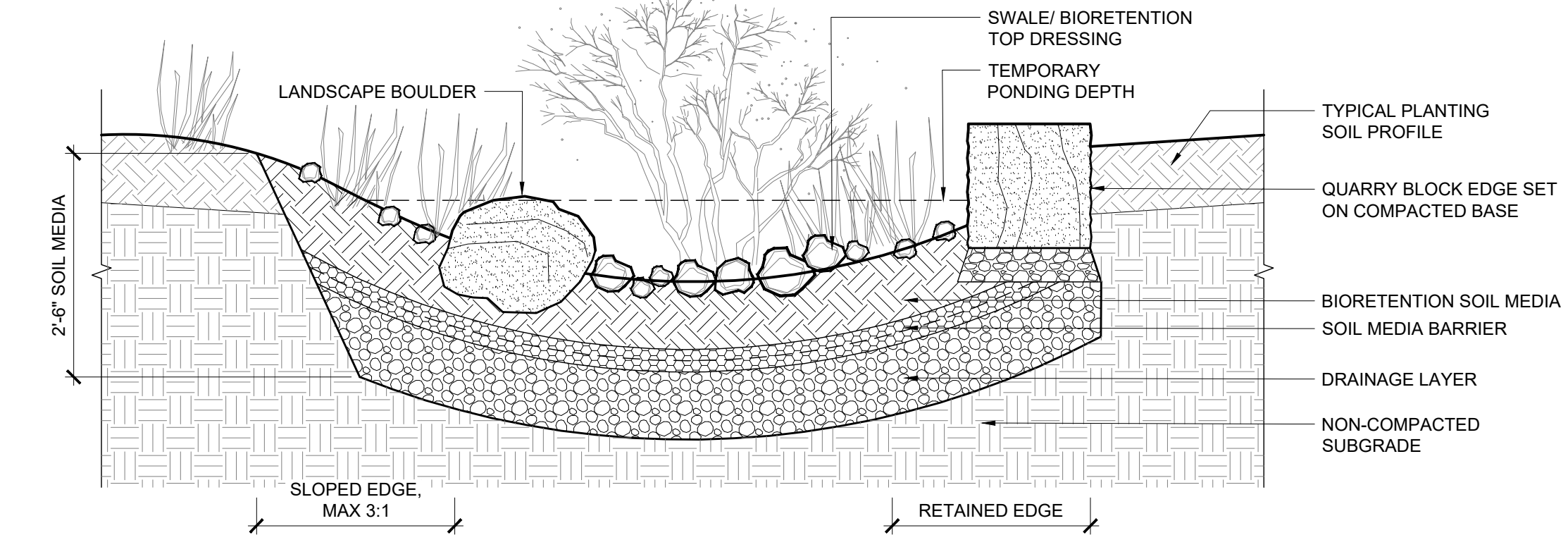


- NOTES:
- DO NOT ALIGN SWALE IN STRAIGHT LINE.
 - PLACE 2'-6" RIVER ROCK AS IT NATURALLY OCCURS, IN RANDOM PATTERNS AND IN VARYING DENSITIES.
 - FEATHER 2'-6" RIVER ROCK OUT OVER HARDWOOD MULCH TO ELIMINATE DEFINITIVE EDGE BETWEEN THE TWO.
 - CONTRACTOR TO PROVIDE 10' x 10' MOCKUP FOR APPROVAL OF AGGREGATE MIXTURES AND INSTALLATION METHODS



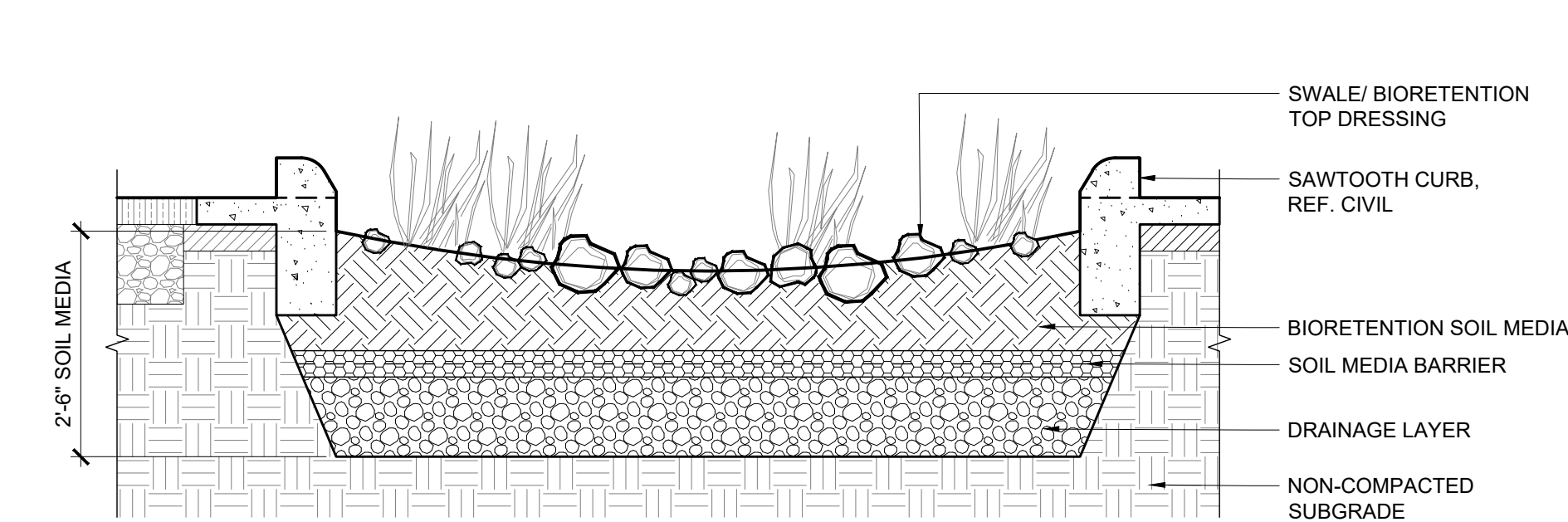
SECTION
8 SWALE/ BIORETENTION TOP DRESSING
1/2" = 1'-0"

- NOTES:
- REF. BIORETENTION SOIL PROFILE DETAIL ON L-700 FOR DEPTHS & MATERIAL SPECS
 - EDGE CONDITION VARIES, REF. PLANS



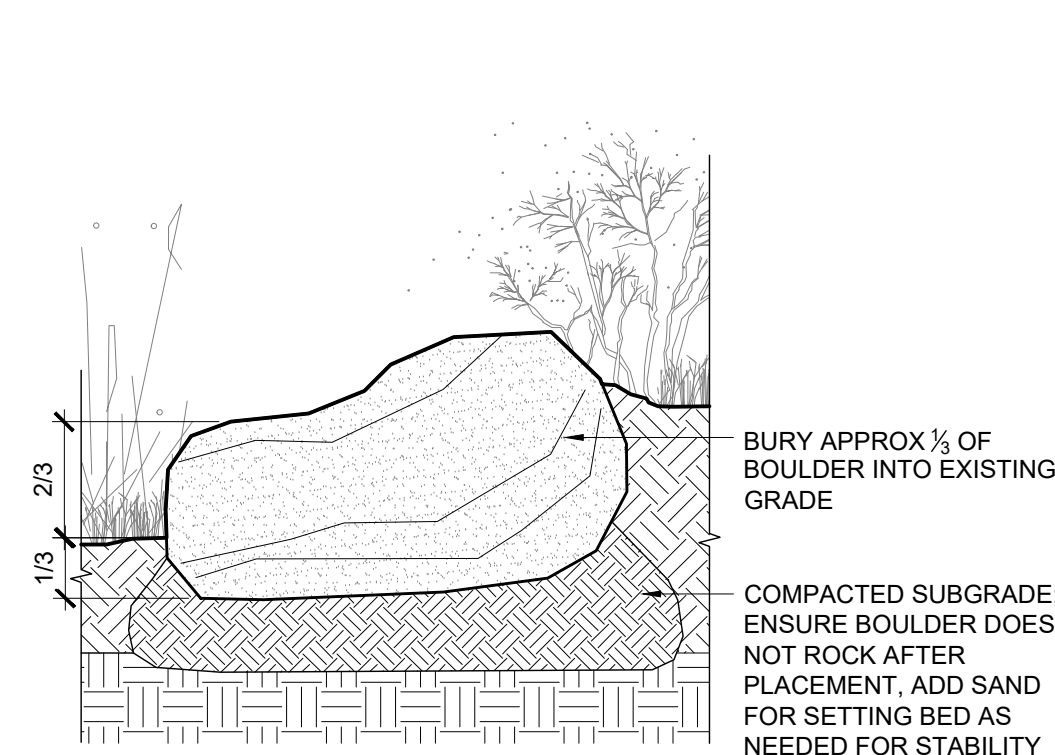
SECTION
7 BIORETENTION BASIN
1/2" = 1'-0"

- NOTES:
- REF. BIORETENTION SOIL PROFILE DETAIL ON L-700 FOR DEPTHS & MATERIAL SPECS
 - SEE PLANS FOR CURB BUMP-OUT LOCATIONS



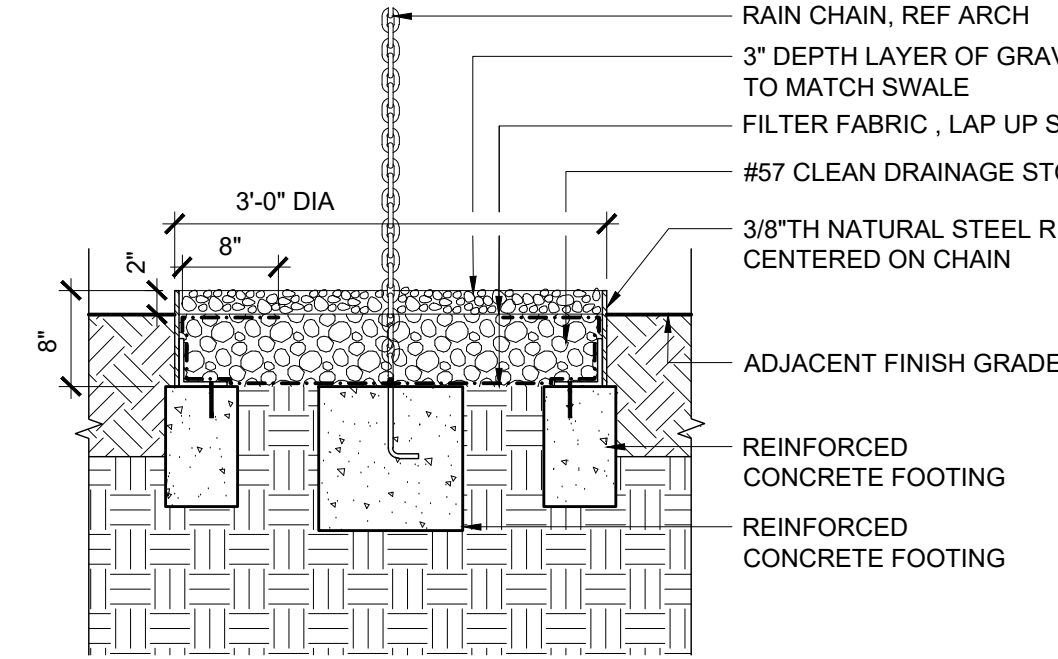
SECTION
6 CURB BUMP-OUT
1/2" = 1'-0"

- NOTES:
- BOULDER SIZES VARY, REF. MAT SCH.

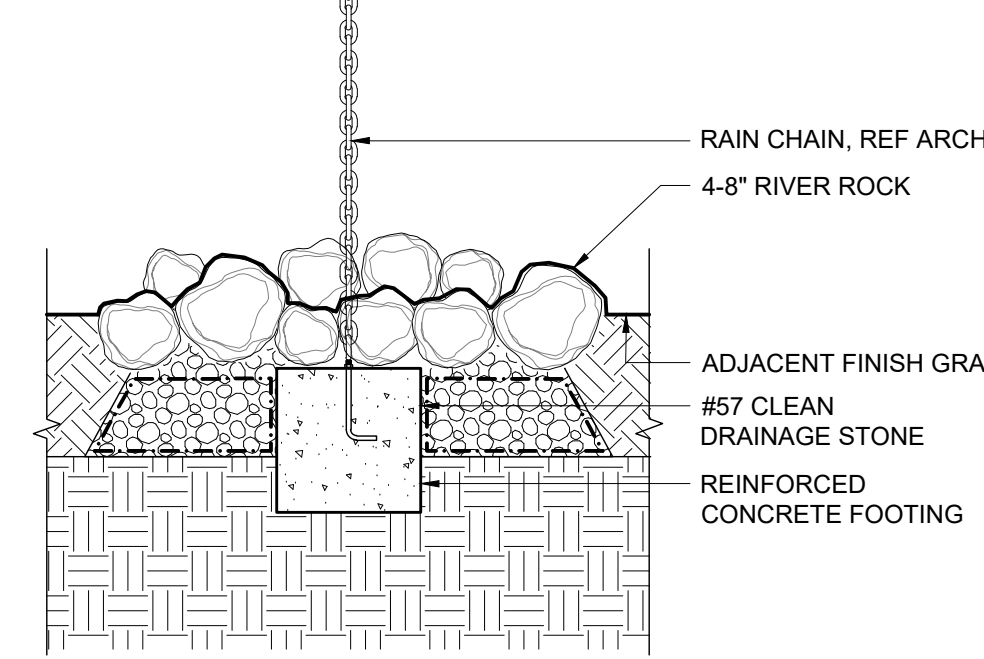


SECTION
5 LANDSCAPE BOULDER
3/4" = 1'-0"

- NOTES:
- WATERPROOF ALL STEEL BELOW GRADE
 - SUBMIT SHOP DRAWINGS FOR LA APPROVAL

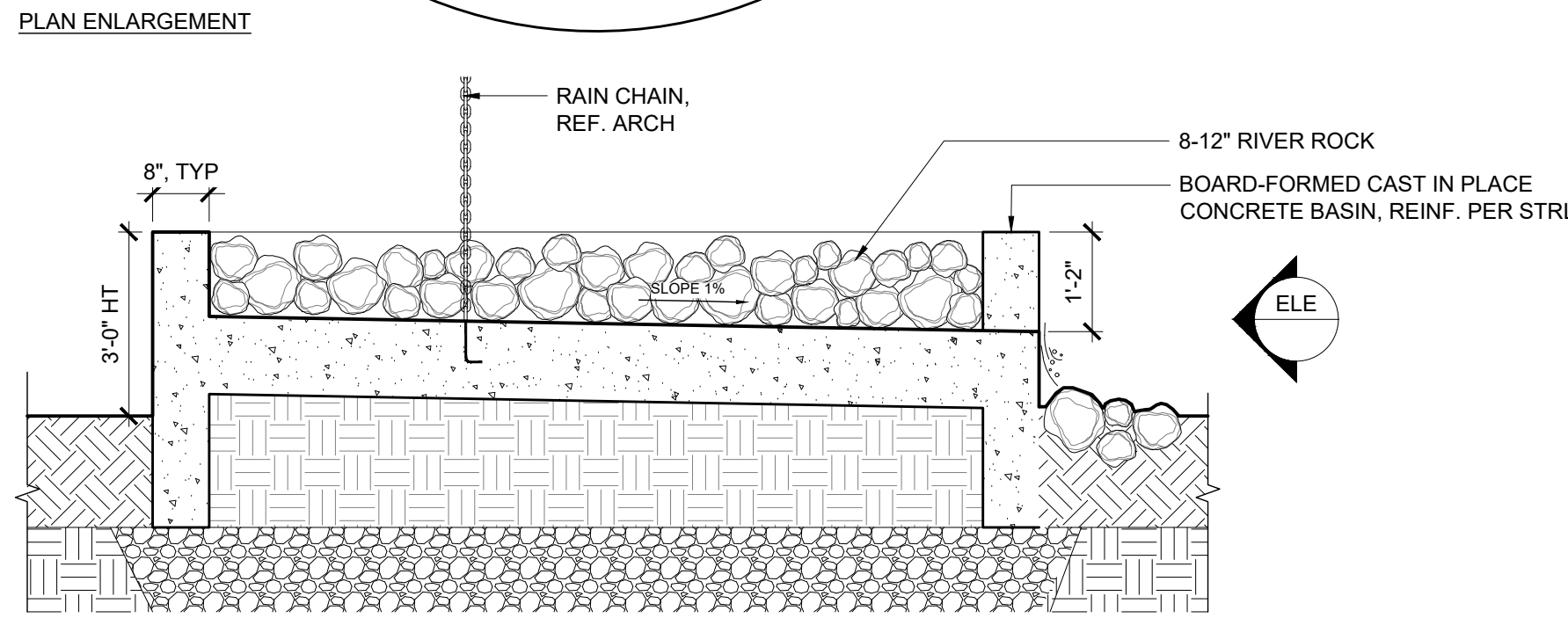
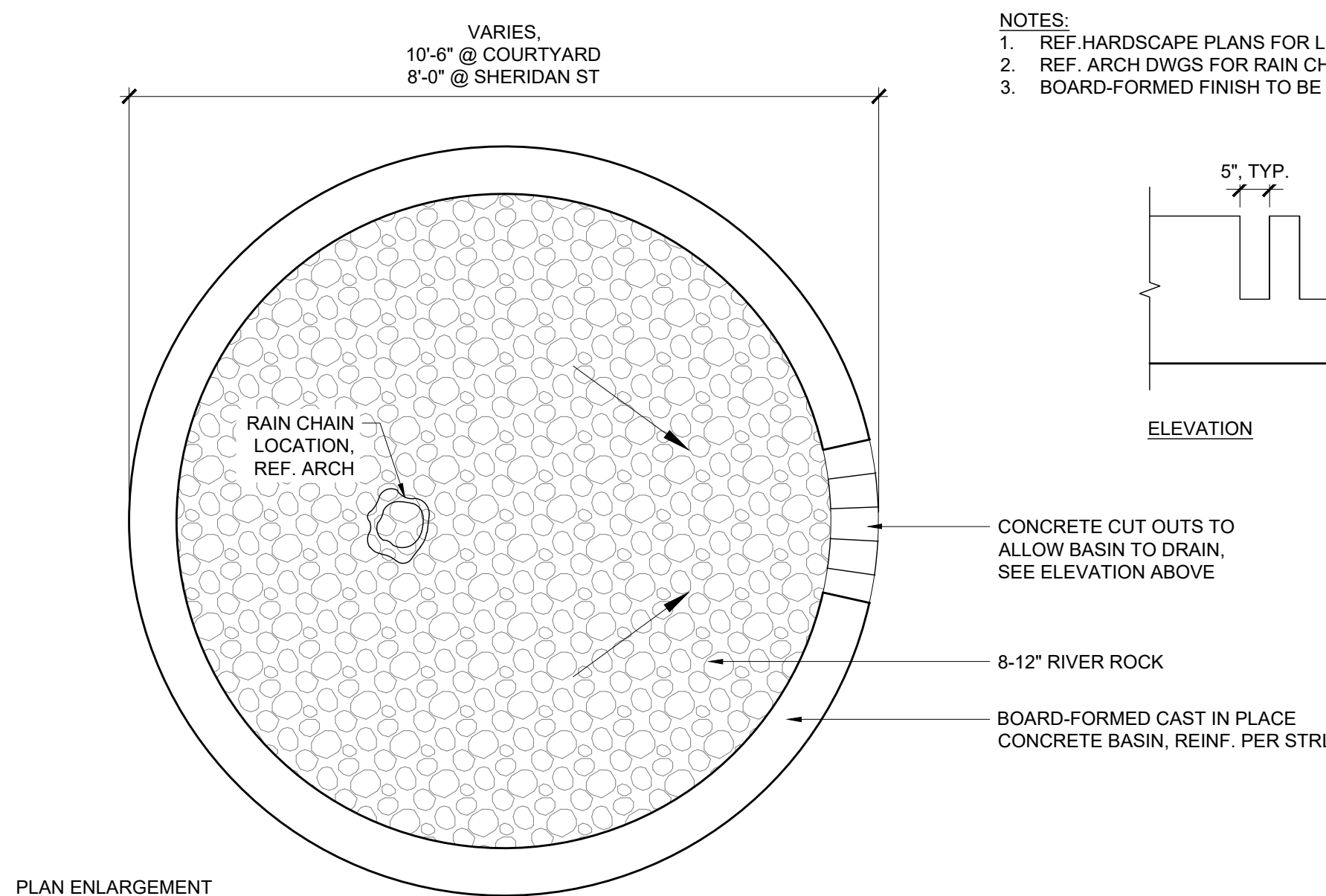


SECTION
4 RAIN CHAIN CATCHMENT TYP.
3/4" = 1'-0"

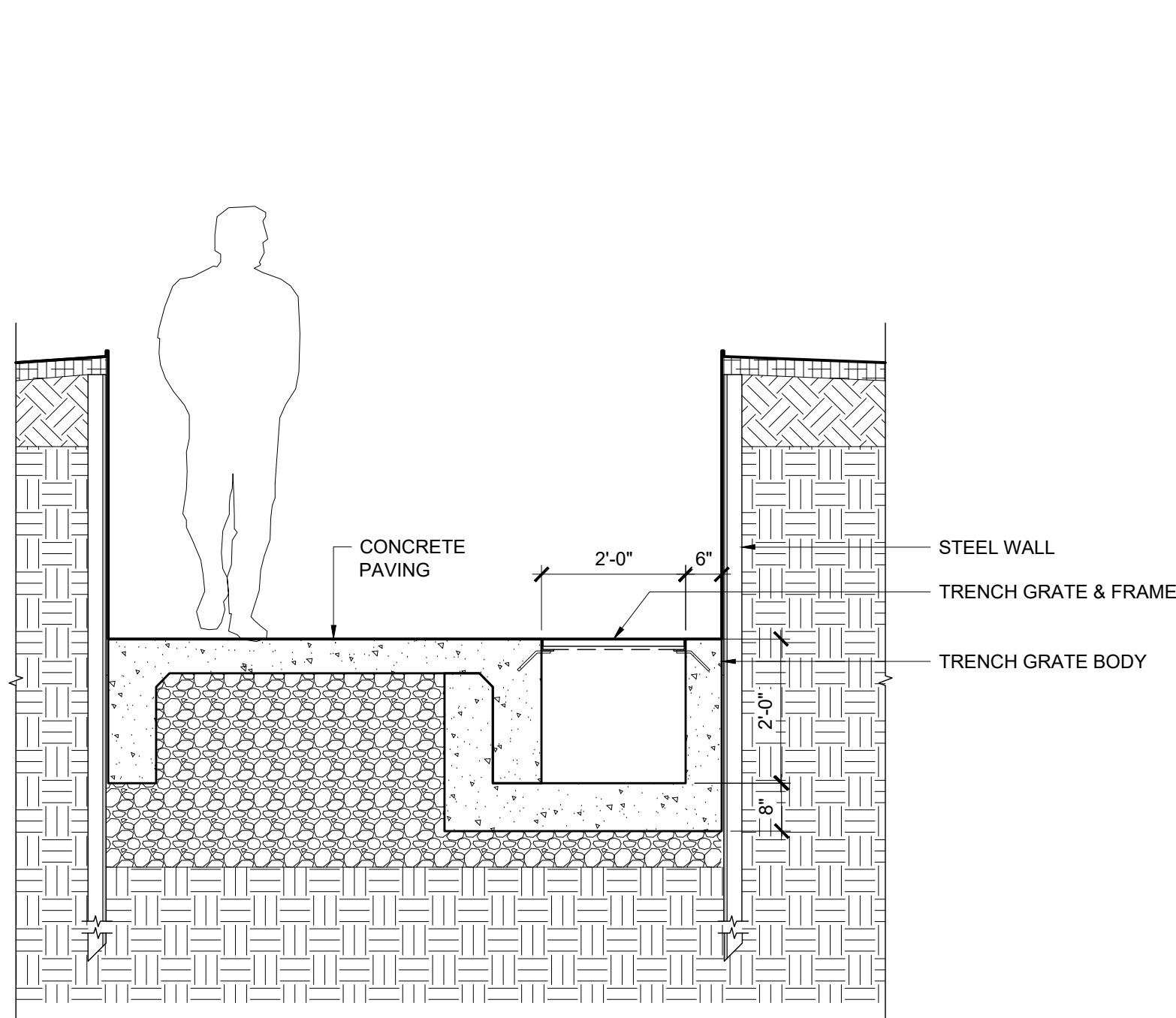


SECTION
3 RAIN CHAIN @ STREETSCAPE
3/4" = 1'-0"

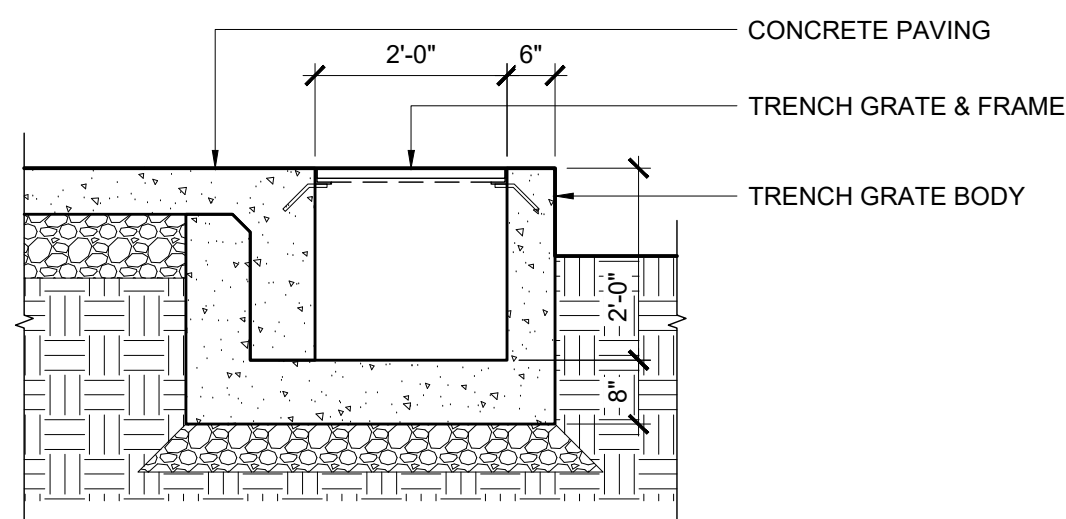
- NOTES:
- REF. HARDSCAPE PLANS FOR LOCATIONS
 - REF. ARCH DWGS FOR RAIN CHAIN LOCATIONS
 - BOARD-FORMED FINISH TO BE VERTICALLY ALIGNED 4" BOARDS



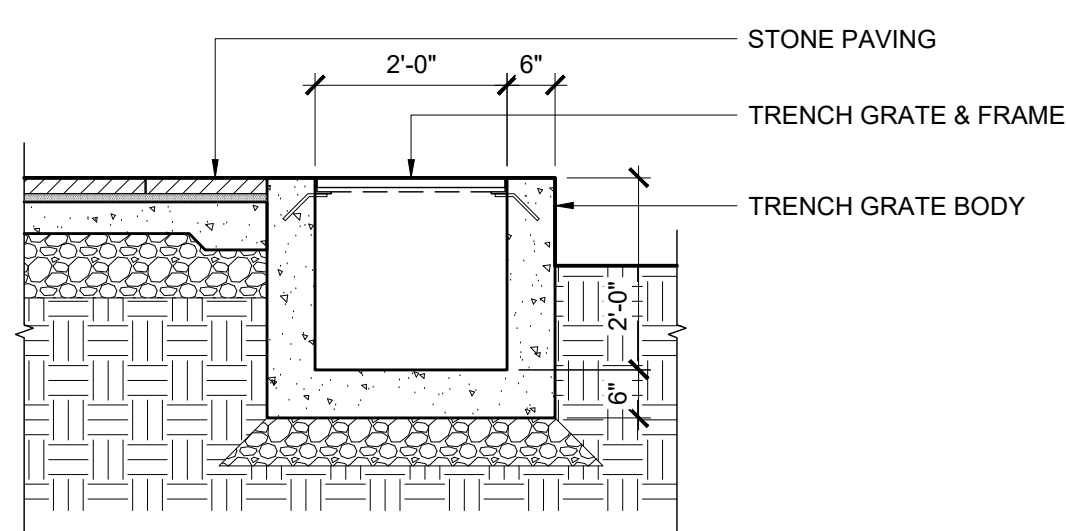
SECTION
1 WATER CATCHMENT FEATURE
1/2" = 1'-0"



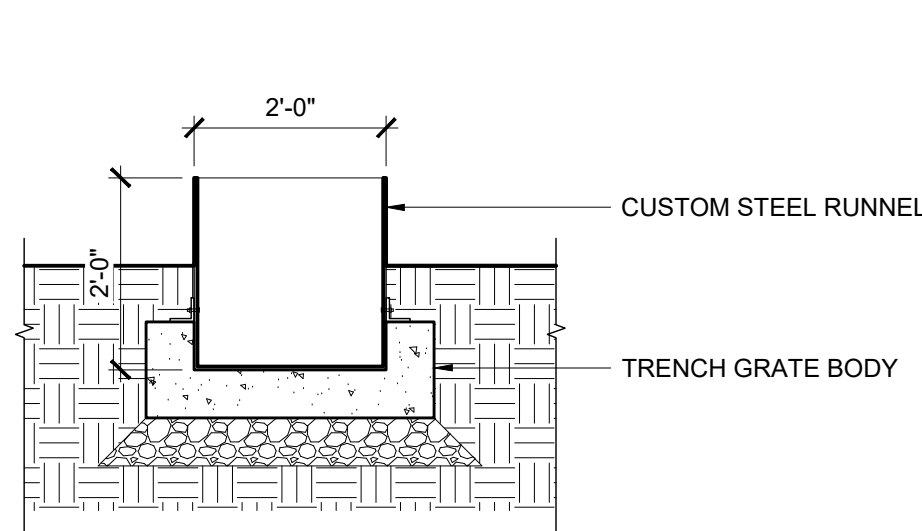
2 STEEL RUNNEL FEATURE
1/2" = 1'-0"



AT CONCRETE PAVING - TRENCH GRATE



AT STONE PAVING - TRENCH GRATE



AT PLANTING - RUNNEL



4 INTERPRETIVE SIGNAGE

- NOTES:
1. GRIND AND DEBUR ALL WELDS.
 2. ALL FINISHES TO BE NATURAL STEEL.
 3. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR LA APPROVAL.

STEEL PLATE ANGLE RETURN - SECURE PLATE TO 3" SQ. POST CAP WITH 2 BOLTS

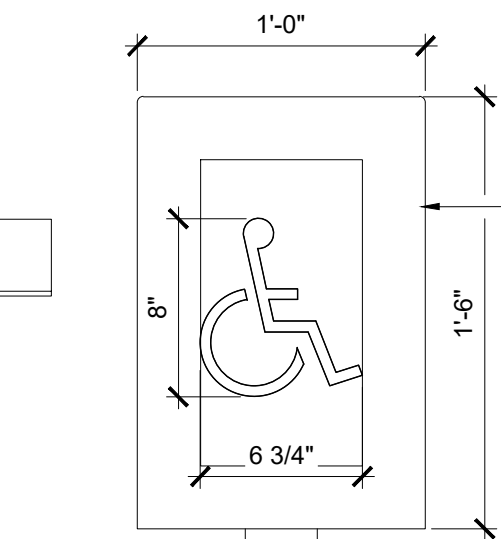
PLAN

STEEL PLATE TURNS BACK 3"
- WELD POST CAP TO POST
- ALIGN AND BOLT STEEL PLATE TO POST CAP

REINFORCED CONCRETE FOOTING, REF STRL

2 CUSTOM ACCESSIBLE PARKING SIGNAGE

1 1/2" = 1'-0"



3/16" THICK UNFINISHED STEEL PLATE
- LASERCUT GRAPHICS AND LETTERING OUT OF STEEL
- CENTER GRAPHICS ON PLATE, BOTH WAYS
- TURN BACK 3" AT BOTTOM OF PLATE
- BOLT TO POST CAP

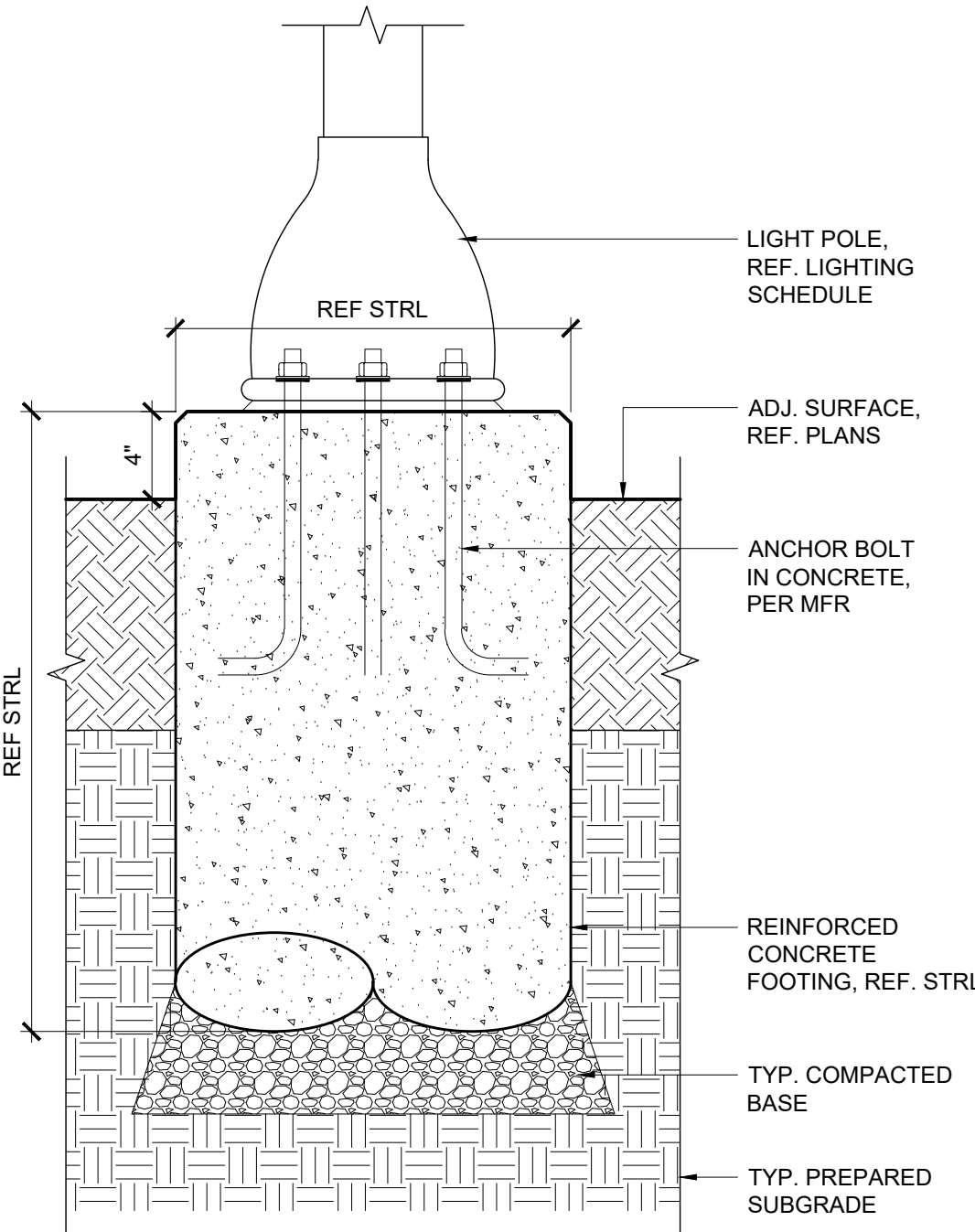
3" SQ. NATURAL STEEL POST
- 3/16" TH. WALLS
- CAP ON TOP

FINISH GRADE OF PLANTING AREA

REINFORCED CONCRETE FOOTING, REF STRL

ELEVATION

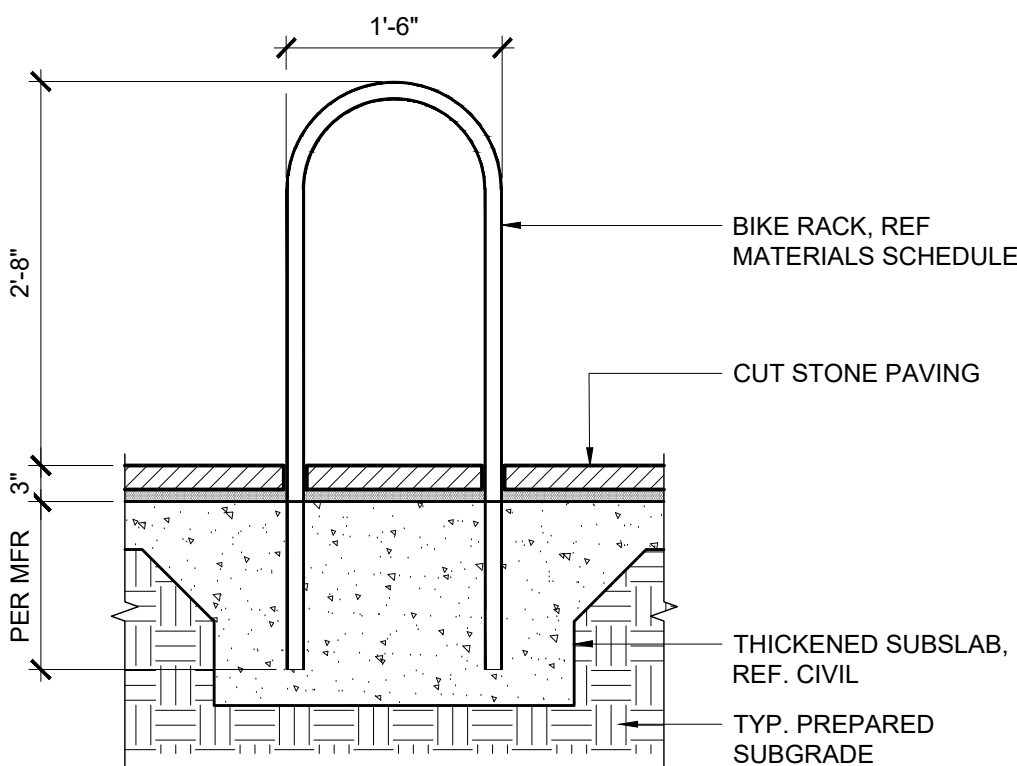
- NOTES:
1. REF. ELECTRICAL & LIGHTING PLANS FOR LOCATIONS
 2. REF. TREE PROTECTION NOTES FOR CONSTRUCTION WITHIN THE CRZ/ HCRZ OF TREES



3 LIGHT POLE FOOTING

1 1/2" = 1'-0"

- NOTES:
1. EMBED PIPE INTO CONCRETE



1 BIKE RACK

3/4" = 1'-0"

PLANTING NOTES

- ALL PLANTING SHALL COMPLY WITH CITY OF SAN ANTONIO CODE AND ORDINANCE REQUIREMENTS.
- LANDSCAPE CONTRACTOR SHALL REVIEW THIS PROJECT WITH THE LANDSCAPE ARCHITECT PRIOR TO STARTING WORK.
- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION COORDINATE WITH DRAWINGS NOTES AND SCHEDULES.
- SHOULD THE CONTRACTOR HAVE ANY QUESTIONS REGARDING THESE PLANS OR SHOULD THERE BE ANY DISCREPANCIES, HE/SHE SHALL CONTACT THE LANDSCAPE ARCHITECT FOR CLARIFICATIONS BEFORE PROCEEDING FURTHER WITH THE WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS AND SHALL NOTIFY ALL COMPANIES WITH UTILITIES ON SITE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ADHERE TO ALL APPLICABLE LOCAL, STATE, AND/OR FEDERAL LAWS, CODES AND ORDINANCES PERTAINING TO THE PROJECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES PRIOR TO STARTING WORK. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES DURING THE INSTALLATION OF LANDSCAPE AND IRRIGATION.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM WORK.
- CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND ROUGH GRADES PRIOR TO STARTING WORK.
- NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL OR MULCH IS PERMITTED ON THE ROOT FLARE OF ANY TREE. POSITIVE DRAINAGE MUST BE PROVIDED FOR ALL TREES SUCH THAT WATER DOES NOT COLLECT AT ROOT FLARE.
- ALL FINISHED PRUNING SHALL BE DONE ACCORDING TO RECOGNIZED, APPROVAL STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE CITY ARBORIST.)
- PROVIDE INCIDENTAL GRADING OF ALL AREAS ADJACENT TO CURBS AND SIDEWALKS.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE FINE GRADING (± 10 FOOT) OF ALL MOUNDS AND SWALES.
- FINISH GRADE OF ALL PLANTING BEDS AND D.G. AREAS SHALL BE 1/2-INCH BELOW ADJACENT PAVING, UNLESS OTHERWISE NOTED ON DRAWINGS. CONSTRUCT ROUGH/FINISH GRADE 3-1/2-INCHES BELOW CURBS OR SIDEWALKS FOR AREAS RECEIVING MULCH.
- TREE SIZE, FORM AND CONDITION: ALL TREES SHALL BE HEALTHY AND VIGOROUSLY GROWING AT TIME OF ACCEPTANCE. THEY SHALL BE FREE OF WOUNDS (EXCEPT FOR PROPERLY MADE PRUNING CUTS THAT HAVE CALLED OVER AT LEAST HALF-WAY) SUNBURNED AREAS AND CONKS, BLEEDING GALLS, CANKERS, LESIONS AND ANY OTHER SIGN OF DISEASE OR OF BORING INSECTS AND INSECT INJURIES.
- INSTALLATION: INSTALL TREE UPRIGHT AND PLUMB IN ALL DIRECTIONS. NO TREE WILL BE ACCEPTED IF PLANTED TOO DEEP. ALL ROOT FLARES TO BE EXPOSED.
- APPLY PRE-EMERGENT HERBICIDE TO SOIL BEFORE AND AFTER MULCH HAS BEEN PLACED (AS APPROVED) PER THE MANUFACTURER'S SPECIFICATIONS. REAPPLY AS NECESSARY DURING MAINTENANCE PERIOD.
- INSTALLATION OF THE LANDSCAPE AND IRRIGATION SYSTEM, INCLUDING ADDITION OF GROUND PLANE MATERIALS, SHALL NOT IMPIDE THE FLOW OF DESIGNED DRAINAGE FACILITIES NOR DECREASE THE DESIGN VOLUME OF ANY DETENTION/RETENTION BASINS. THE LANDSCAPE CONTRACTOR SHALL ADHERE TO THE GRADING PLANS FOR DRAINAGE FLOWS AND SHALL BE RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE AWAY FROM ALL WALLS AND STRUCTURES WITHOUT OBSTRUCTIONS.
- ALL PLANT MATERIAL AND SPECIFICATIONS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSEYMEN FOR HEIGHT, WIDTH AND CALIPER INDICATED OTHERWISE ON THE PLANS AND SPECIFICATIONS.
- THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REFUSE ANY PLANT MATERIAL DEEMED UNACCEPTABLE UPON DELIVERY TO THE SITE. CONTACT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- NO ROOT BOUND TREES WILL BE ACCEPTED OR PLANTED. CONTRACTOR SHALL REPLACE PLANTS THAT ARE FOUND TO BE ROOT BOUND FOR UP TO ONE (1) YEAR AFTER INSTALLATION AT NO EXTRA COST TO THE OWNER.
- CONTRACTOR SHALL MAKE NO PLANT SUBSTITUTIONS, OF TYPE OR QUANTITY, THAT DEViate FROM THE LANDSCAPE OR IRRIGATION PLANS WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- WATER TEST ALL TREE PLANTING PITS PRIOR TO PLANTING. IF PLANT PIT DOES NOT DRAIN PER THE SPECIFICATIONS, DO NOT PLANT, CONTACT THE LANDSCAPE ARCHITECT TO APPROVE THE USE OF HARDPAN PLANTING PROCEDURES AND DETAILS SHOWN ON THESE PLANS.
- USE PLANT BACKFILL MIX AS INDICATED IN THE SPECIFICATIONS.
- COORDINATE SHRUB AND TREE PLANTING INSTALLATION WITH OTHER CONSTRUCTION WORK ON SITE.
- STAKE ALL TREES WHEN PLANTED AS REQUIRED OR INDICATED ON DRAWINGS.
- CONTRACTOR SHALL LOCATE PLANTS TO MAINTAIN THE FOLLOWING CLEARANCE REQUIREMENTS:
 - 8 FOOT CLEARANCE: IRRIGATION SPRINKLER HEADS, LIGHT FIXTURES, AND OTHER OBSTRUCTIONS.
 - 5 FOOT CLEARANCE: FIRE HYDRANTS, FIRE SUPPRESSION DEVICES (NO PLANTS SHALL ENCRoACH WHEN MATURE).
 - 2 FOOT CLEARANCE: IRRIGATION VALVE BOXES
- AFTER LANDSCAPE AND IRRIGATION INSTALLATION, CONTRACTOR SHALL USE MULCH AS SPECIFIED FOR TOP DRESSING OF ALL PLANTING AREAS. IN AREAS RECEIVING MULCH, MULCH SHALL EXTEND UNDER SHRUBS AND TREE CANOPIES. CONTRACTOR SHALL PROVIDE A SAMPLE OF MULCH FOR LANDSCAPE ARCHITECT'S APPROVAL.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING, MAINTAINING AND THE GUARANTEE OF ALL LANDSCAPE AND IRRIGATION WORK PER THE PLANS AND SPECIFICATIONS. MAINTAIN LANDSCAPE THROUGHOUT CONSTRUCTION PERIOD, INCLUDING WEEDING, CULTIVATING, TRIMMING, FERTILIZING AND WATERING.
- THE LANDSCAPE ARCHITECT SHALL HAVE THE RIGHT TO INSPECT PLANT MATERIAL AT THE SOURCE OF SUPPLY FOR COMPLIANCE REQUIREMENTS FOR QUALITY, SIZE, SHAPE, FORM AND VARIETY. ALL PLANTS SHALL BE CLEARLY MARKED PRIOR TO REVIEW. LANDSCAPE ARCHITECT MAY APPROVE ALL TREES AT THEIR SOURCE, PROVIDE LOCATIONS AND CONTACT NAME.
- PROVIDE PLANT STOCK TRUE TO BOTANICAL NAME AND LEGIBLY TAGGED. TRADEMARKED PLANTS SHALL BEAR NURSERY TAG.
- THE LANDSCAPE ARCHITECT SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO THE REQUIRED SITE OBSERVATIONS.
 - ROUGH GRADING
 - AT THE COMPLETION OF FINE GRADING, PRIOR TO PLANTING
 - AT TIME OF LOCATION OF PLANT MATERIAL ON SITE, PRIOR TO PLANTING
 - UPON COMPLETION OF ALL WORK SPECIFIED AND INDICATED ON DRAWINGS FOR PROJECT ACCEPTANCE BY THE LANDSCAPE ARCHITECT TO ESTABLISH SUBSTANTIAL COMPLETION AND THE START OF THE SPECIFIED LANDSCAPE MAINTENANCE PHASE
 - AT THE COMPLETION OF THE PLANT ESTABLISHMENT AND MAINTENANCE PHASE
- PLANTING AND IRRIGATION DESIGN MAY BE MODIFIED TO ADAPT TO WALK CONFIGURATIONS THAT DIFFER FROM THESE PLANS AND DUE TO GRADE LIMITATIONS ON SITE. SUCH MODIFICATIONS SHALL BE REVIEWED WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

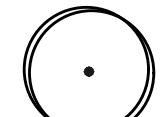

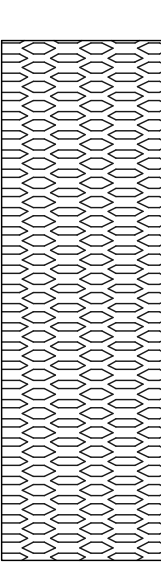
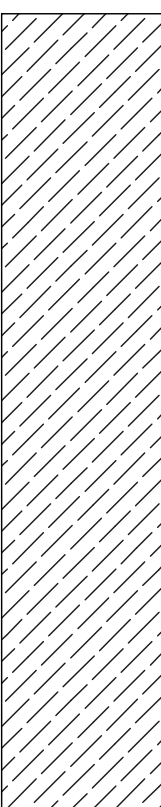

IRRIGATION NOTES

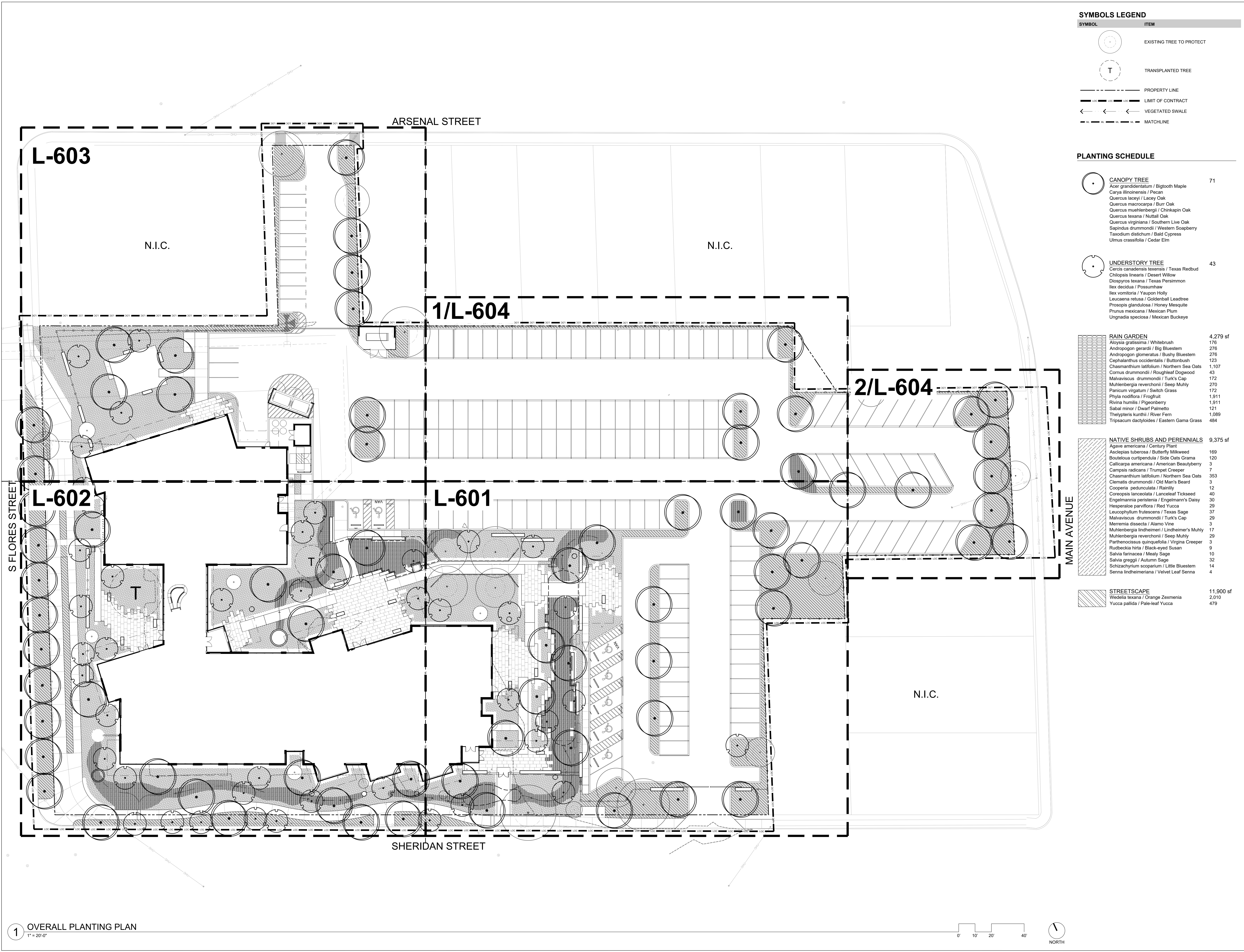
- AUTOMATIC IRRIGATION SYSTEMS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS. THESE REQUIREMENTS SHALL BE NOTED ON THE SITE DEVELOPMENT PERMIT AND SHALL BE IMPLEMENTED AS PART OF THE LANDSCAPE INSPECTION:
- A NEW COMMERCIAL AND MULTIFAMILY IRRIGATION SYSTEM MUST BE DESIGNED AND INSTALLED SO THAT:
 - THERE IS NOT DIRECT OVERSPRAY ONTO NON-IRRIGATED AREAS.
 - THE SYSTEM DOES NOT INCLUDE SPRAY IRRIGATION ON AREAS LESS THAN SIX (6) FEET WIDE (SUCH AS MEDIANS, BUFFER STRIPS, AND PARKING LOT ISLANDS)
 - ABOVE-GROUND IRRIGATION EMISSION DEVICES ARE SET BACK AT LEAST SIX (6) INCHES FROM IMPERVIOUS SURFACES.
 - THE IRRIGATION SYSTEM HAS A MASTER VALVE.
 - CIRCUIT REMOTE CONTROL VALVES HAVE ADJUSTABLE FLOW CONTROLS.
 - AN AUTOMATIC RAIN SHUT-OFF DEVICE SHUTS OFF THE IRRIGATION SYSTEM AUTOMATICALLY AFTER NOT MORE THAN A ONE-HALF INCH (1/2) RAINFALL.
 - ZONE VALVES AND CIRCUITS ARE SEPARATED BASED ON PLANT WATER REQUIREMENTS.
 - AN IRRIGATION EMISSION DEVICE (SUCH AS SPRAY, ROTOR, OR DRIP EMITTER) DOES NOT EXCEED THE MANUFACTURER'S RECOMMENDED OPERATING PRESSURE, AND NO COMPONENT OF THE IRRIGATION SYSTEM DEVIATES FROM THE MANUFACTURER'S RECOMMENDED USE OF THE PRODUCT.
 - THE MAXIMUM SPACING BETWEEN SPRAY OR ROTARY SPRINKLER HEADS MUST NOT EXCEED THE RADIUS OF THROW OF THE HEAD UNLESS MANUFACTURER OF THE SPRINKLER HEAD SPECIFICALLY RECOMMENDS A GREATER SPACING. THE RADIUS OF THROW IS DETERMINED BY REFERENCE TO THE MANUFACTURER'S SPECIFICATIONS FOR A SPECIFIC NOZZLE AT A SPECIFIC OPERATING PRESSURE.
 - THE IRRIGATION INSTALLER SHALL DEVELOP AND PROVIDE AN AS-BUILT DESIGN PLAN AND WATER BUDGET TO THE CITY AT THE TIME THE FINAL PLUMBING INSPECTION IS PERFORMED. THE WATER BUDGET SHALL INCLUDE:
 - A CHART CONTAINING ZONE NUMBERS, PRECIPITATION RATE, AND GALLONS PER MINUTE; AND
 - THE LOCATION OF THE EMERGENCY IRRIGATION SYSTEM SHUT-OFF VALVE. A LAMINATED COPY OF THE WATER BUDGET SHALL BE PERMANENTLY INSTALLED INSIDE THE IRRIGATION CONTROLLER DOOR.

OAK WILT PREVENTION NOTES

- PRUNING OF AN EXISTING TREE THAT IS NECESSARY AS PART OF THIS PROJECT SHALL BE CONDUCTED IN ACCORDANCE WITH ANSI A300-1995 STANDARDS, OR LATEST APPROVED EDITION AND PERFORMED BY A CERTIFIED ARBORIST.
- AVOID PRUNING OR WOUNDING OAK TREES FROM FEBRUARY THROUGH JUNE.
- PRUNING SHALL BE DONE WITH STERILIZED, SHARP TOOLS. TO PREVENT BARK TEARS, THE WEIGHT OF THE BRANCH SHALL BE REMOVED BEFORE MAKING FINAL PRUNING CUT.
- STERILIZE/ SANITIZE ALL PRUNING EQUIPMENT BETWEEN TREES USING ISOPROPYL (RUBBING) ALCOHOL, BLEACH OR OTHER APPROVED EQUAL.
- ALL PRUNING SHALL PRESERVE THE NATURAL CHARACTER OF THE TREE.
- ONLY COLLAR CUTS ARE ACCEPTABLE. NO FLUSH CUTS OR STUB CUTS WILL BE ALLOWED.
- ALL TREE BRANCHES NECESSARY TO BE REMOVED FOR THE SAFE CONSTRUCTION OF THIS PROJECT SHALL BE IDENTIFIED BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO REMOVAL.
- ALL BRANCHES THAT ARE BROKEN OR DAMAGED DURING CONSTRUCTION SHALL BE REMOVED.
- PRUNING CUTS OR DAMAGED AREAS ON AN OAK TREE SHALL BE PAINTED WITHIN FIVE MINUTES WITH A STANDARD TREE WOUND DRESSING OR LATEX PAINT. TREE WOUND DRESSING SHALL BE EITHER TREEKOTE AEROSOL OR TANGLEFOOT PRUNING SEALER (OR APPROVED EQUAL).
- ANY TREE ROOTS THAT ARE EXPOSED, CUT, OR TORN DURING CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND THE WOUND SHALL BE PAINTED WITH STANDARD TREE WOUND DRESSING PER NOTE ABOVE. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.

PLANTING SCHEDULE

	CANOPY TREE Acer grandidentatum / Bigtooth Maple Carya illinoensis / Pecan Quercus laceyi / Lacey Oak Quercus macrocarpa / Burr Oak Quercus muehlenbergii / Chinkapin Oak Quercus texana / Nuttall Oak Quercus virginiana / Southern Live Oak Sapindus drummondii / Western Soapberry Taxodium distichum / Bald Cypress Ulmus crassifolia / Cedar Elm	71	4" Cal. 4" Cal. 4" Cal. 4" Cal. 4" Cal. 4" Cal. 4" Cal. 4" Cal. 4" Cal.
	UNDERSTORY TREE Cercis canadensis texensis / Texas Redbud Chiopsis linearis / Desert Willow Diospyros texana / Texas Persimmon Ilex decidua / Possumhaw Ilex vomitoria / Yaupon Holly Leucaena retusa / Goldenball Leadtree Prosopis glandulosa / Honey Mesquite Prunus mexicana / Mexican Plum Ungadia speciosa / Mexican Buckeye	43	8'-10' multi-trunk 8'-10' multi-trunk 8'-10' multi-trunk 8'-10' multi-trunk 8'-10' multi-trunk 8'-10' multi-trunk 8'-10' multi-trunk 8'-10' multi-trunk 8'-10' multi-trunk
	RAIN GARDEN Aloysia gratissima / Whitebrush Andropogon gerardi / Big Bluestem Andropogon glomeratus / Bushy Bluestem Cephalanthus occidentalis / Buttonbush Chasmanthium latifolium / Northern Sea Oats Cornus drummondii / Roughleaf Dogwood Malvaviscus drummondii / Turk's Cap Muhlenbergia reverchonii / Seep Muhly Panicum virgatum / Switch Grass Phyla nodiflora / Frogfruit Rivina humilis / Pigeonberry Sabal minor / Dwarf Palmetto Thelypteris kunthii / River Fern Tripsacum dactyloides / Eastern Gama Grass	4,279 sf	176 3 gal. 276 3 gal. 276 3 gal. 123 7 gal. 1,107 1 gal. 43 4' Ht. 172 1 gal. 270 1 gal. 172 3 gal. 1,911 1 gal. 1,911 1 gal. 121 7 gal. 1,089 1 gal. 484 1 gal.
	NATIVE SHRUBS AND PERENNIALS Agave americana / Century Plant Asclepias tuberosa / Butterfly Milkweed Bouteloua curtipendula / Side Oats Grama Callicarpa americana / American Beautyberry Campsis radicans / Trumpet Creeper Chasmanthium latifolium / Northern Sea Oats Clematis drummondii / Old Man's Beard Cooperia pedunculata / Rainily Coreopsis lanceolata / Lanceleaf Tickseed Engelmannia peristenia / Engelmann's Daisy Hesperaloe parviflora / Red Yucca Leucophyllum frutescens / Texas Sage Malvaviscus drummondii / Turk's Cap Merremia dissecta / Alamo Vine Muhlenbergia lindheimeri / Lindheimer's Muhly Muhlenbergia reverchonii / Seep Muhly Parthenocissus quinquefolia / Virginia Creeper Rudbeckia hirta / Black-eyed Susan Salvia farinacea / Mealy Sage Salvia greggii / Autumn Sage Schizachyrium scoparium / Little Bluestem Senna lindheimeriana / Velvet Leaf Senna	9,375 sf	10 gal. 1 gal. 1 gal. 5 gal. 7 5 gal. 353 1 gal. 3 3 gal. 12 4" pot 40 1 gal. 30 1 gal. 29 3 gal. 37 4' Ht. 29 1 gal. 3 3 gal. 17 3 gal. 29 1 gal. 3 3 gal. 9 1 gal. 10 1 gal. 32 5 gal. 14 3 gal. 4 5 gal.
	STREETSCAPE Wedelia texana / Orange Zexmenia Yucca pallida / Pale-leaf Yucca	11,900 sf	2,010 3 gal. 479 3 gal.



SYMBOLS LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE

PLANTING SCHEDULE	
	CANOPY TREE Acer grandidentatum / Bigtooth Maple 71 Carya illinoensis / Pecan 176 Quercus laceyi / Lacey Oak 276 Quercus macrocarpa / Burr Oak 123 Quercus muehlenbergii / Chinquapin Oak 1,107 Quercus texana / Nuttall Oak 43 Quercus virginiana / Southern Live Oak 172 Sapindus drummondii / Western Soapberry 270 Taxodium distichum / Bald Cypress 172 Ulmus crassifolia / Cedar Elm 1,911
	UNDERSTORY TREE Cercis canadensis texensis / Texas Redbud 1,911 Chilopsis linearis / Desert Willow 121 Diospyros texana / Texas Persimmon 1,089 Ilex decidua / Possumhaw 484 Ilex vomitoria / Yaupon Holly Leucaena retusa / Goldenball Leadtree Prosopis glandulosa / Honey Mesquite Prunus mexicana / Mexican Plum Ungnadia speciosa / Mexican Buckeye
	RAIN GARDEN Alyxia gratissima / Whitebrush 4,279 sf Andropogon gerardii / Big Bluestem 276 Andropogon glomeratus / Bushy Bluestem 276 Cephalanthus occidentalis / Buttonbush 123 Chasmanthium latifolium / Northern Sea Oats 1,107 Corns drummondii / Roughleaf Dogwood 43 Malvaviscus drummondii / Turk's Cap 172 Muhlenbergia reverchonii / Seep Muhly 270 Panicum virgatum / Switch Grass 172 Phyla nodiflora / Frogfruit 1,911 Rivina humilis / Pigeonberry 1,911 Sabal minor / Dwarf Palmetto 121 Thelypteris kunthii / River Fern 1,089 Tripsacum dactyloides / Eastern Gama Grass 484
	NATIVE SHRUBS AND PERENNIALS Agave americana / Century Plant 169 Asclepias tuberosa / Butterfly Milkweed 120 Bouteloua curtipendula / Side Oats Grama 3 Callicarpa americana / American Beautyberry 7 Campsis radicans / Trumpet Creeper 353 Chasmanthium latifolium / Northern Sea Oats 12 Clematis drummondii / Old Man's Beard 40 Cooperia pedunculata / Rainlily 30 Coreopsis lanceolata / Lanceleaf Tickseed 30 Engelmannia peristenia / Engelmann's Daisy 29 Hesperaloe parviflora / Red Yucca 37 Leucophyllum frutescens / Texas Sage 29 Malvaviscus drummondii / Turk's Cap 3 Merremia dissecta / Alamo Vine 17 Muhlenbergia lindheimeri / Lindheimer's Muhly 29 Muhlenbergia reverchonii / Seep Muhly 3 Parthenocissus quinquefolia / Virginia Creeper 9 Rudbeckia hirta / Black-eyed Susan 10 Salvia farinacea / Mealy Sage 32 Salvia greggii / Autumn Sage 479 Schizachyrium scoparium / Little Bluestem Senna lindheimeriana / Velvet Leaf Senna
	STREETSCAPE Wedelia texana / Orange Zexmenia 2,010 Yucca pallida / Pale-leaf Yucca 479

1 OVERALL PLANTING PLAN
1" = 20'-0"

Project No. 22068A

PRELIMINARY
This design document is
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permitting, or construction.

Date 2024-08-23

TEN EYCK
LANDSCAPE ARCHITECTS

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www.teneyckla.com

San Antonio River Authority

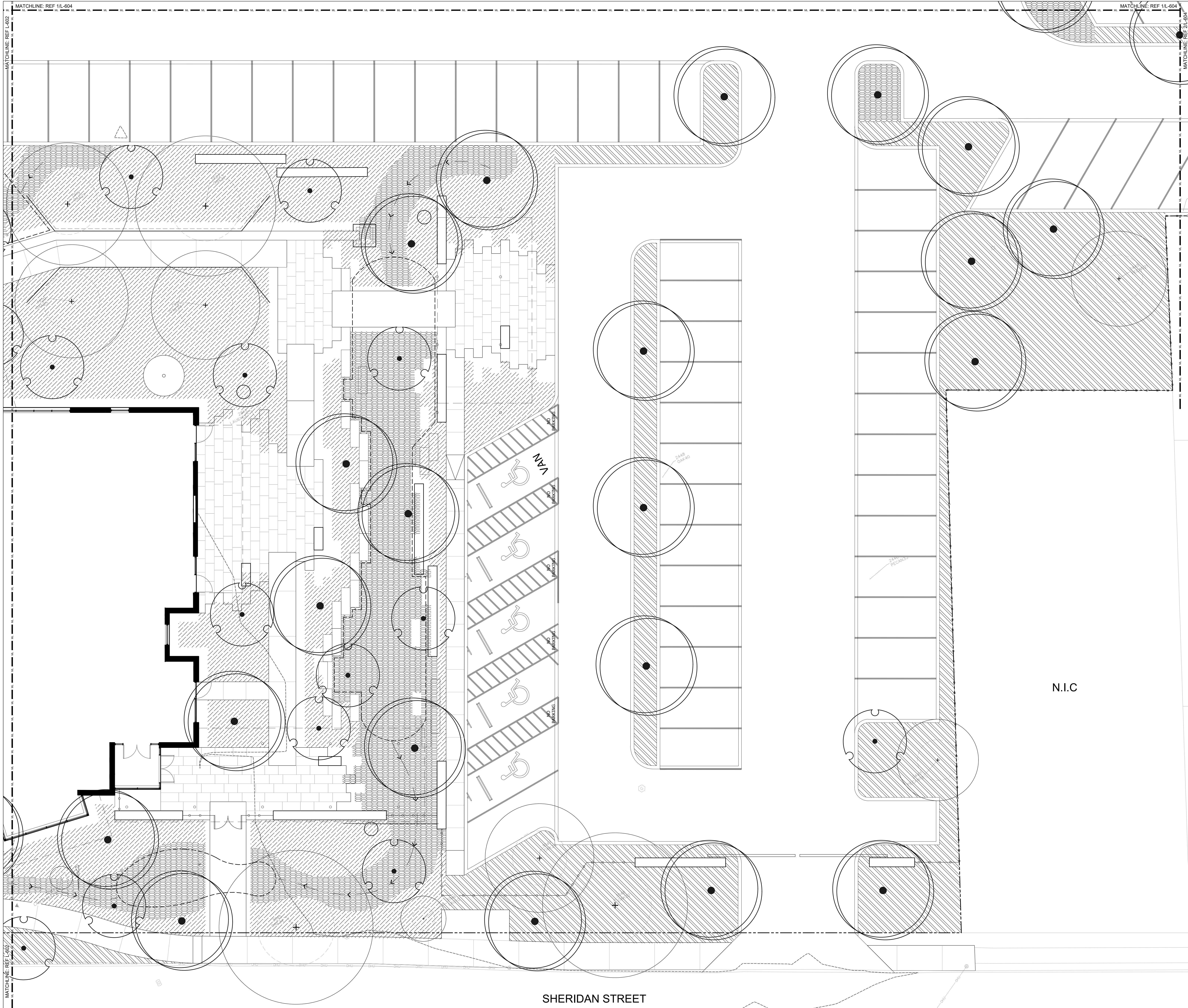
SARA Sheridan Campus
201 W Sheridan St
San Antonio, TX
78204

revision date

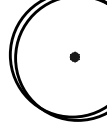

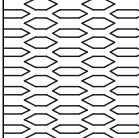
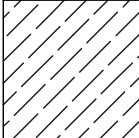

LAKE FLATO
RVK
ARCHITECTURE

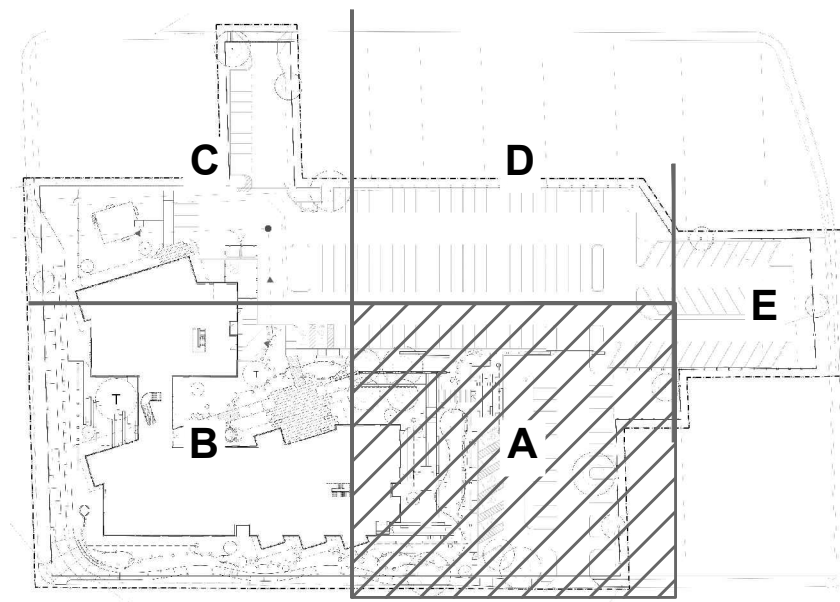
2002 N. Saint Mary's St.
San Antonio Texas 78212
Office: 210.733.3535
web: www.rvkarchitecture.com
60% CONSTRUCTION
DOCUMENTS

L-600B
OVERALL PLANTING
PLAN



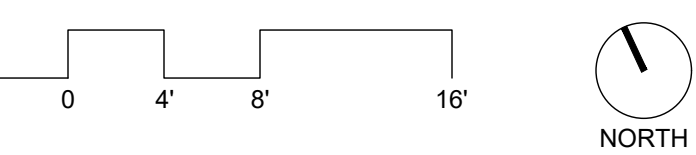
SYMBOLS LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE

PLANTING SCHEDULE		
	CANOPY TREE	71
Acer grandidentatum / Bigtooth Maple		178
Carya illinoensis / Pecan		276
Quercus laceyi / Lacey Oak		276
Quercus macrocarpa / Burr Oak		123
Quercus muehlenbergii / Chinkapin Oak		43
Quercus texana / Nuttall Oak		172
Quercus virginiana / Southern Live Oak		270
Sapindus drummondii / Western Soapberry		172
Taxodium distichum / Bald Cypress		1,911
Ulmus crassifolia / Cedar Elm		1,911
	UNDERSTORY TREE	43
Cercis canadensis texensis / Texas Redbud		29
Chilopsis linearis / Desert Willow		3
Diospyros texana / Texas Persimmon		12
Ilex decidua / Possumhaw		40
Ilex vomitoria / Yaupon Holly		30
Leucaena retusa / Goldenball Leadtree		29
Prosopis glandulosa / Honey Mesquite		3
Prunus mexicana / Mexican Plum		9
Ungnadia speciosa / Mexican Buckeye		10
	RAIN GARDEN	4,279 sf
Alyxia gratissima / Whitebrush		178
Andropogon gerardii / Big Bluestem		276
Andropogon glomeratus / Bushy Bluestem		276
Cephalanthus occidentalis / Buttonbush		123
Chasmanthium latifolium / Northern Sea Oats		1,107
Cornus drummondii / Roughleaf Dogwood		43
Malvaviscus drummondii / Turk's Cap		172
Muhlenbergia reverchonii / Seep Muhly		270
Panicum virgatum / Switch Grass		172
Phyla nodiflora / Frogfruit		1,911
Rivina humilis / Pigeberry		1,911
Sabal minor / Dwarf Palmetto		121
Thelypteris kunthii / River Fern		1,089
Tripsacum dactyloides / Eastern Gama Grass		484
	NATIVE SHRUBS AND PERENNIALS	9,375 sf
Agave americana / Century Plant		169
Asclepias tuberosa / Butterfly Milkweed		120
Bouteloua curtipendula / Side Oats Grama		3
Callicarpa americana / American Beautyberry		7
Campsis radicans / Trumpet Creeper		3
Chasmanthium latifolium / Northern Sea Oats		353
Clematis drummondii / Old Man's Beard		3
Cooperia pedunculata / Rainlily		12
Coreopsis lanceolata / Lanceleaf Tickseed		40
Engelmannia peristensis / Engelmann's Daisy		30
Hesperaloe parviflora / Red Yucca		29
Leucophyllum frutescens / Texas Sage		37
Malvaviscus drummondii / Turk's Cap		29
Merremia dissecta / Alamo Vine		3
Muhlenbergia lindheimeri / Lindheimer's Muhly		17
Muhlenbergia reverchonii / Seep Muhly		29
Parthenocissus quinquefolia / Virginia Creeper		3
Rudbeckia hirta / Black-eyed Susan		9
Salvia farinacea / Mealy Sage		10
Salvia greggii / Autumn Sage		32
Schizachyrium scoparium / Little Bluestem		14
Senna lindheimeriana / Velvet Leaf Senna		4
	STREETSCAPE	11,900 sf
Wedelia texana / Orange Zexmenia		2,010
Yucca pallida / Pale-leaf Yucca		479



KEY PLAN: NTS

1 PLANTING PLAN A
1/8" = 1'-0"



Project No. 22068A

PRELIMINARY

This design document is incomplete and may not be used for regulatory approval, permitting, or construction.

Date 2024-08-23

TEN EYCK

LANDSCAPE ARCHITECTS

1224 EAST 12TH STREET, SUITE 323
AUSTIN, TEXAS 78702
512.813.9690 P
www.teneyckla.com

San Antonio River Authority

SARA Sheridan Campus

201 W Sheridan St
San Antonio, TX 78204

revision

date

LAKE FLATO

RVK

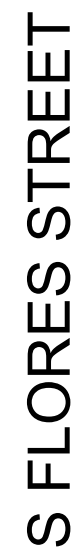
ARCHITECTURE

2002 N. Saint Mary's St.
San Antonio Texas 78212
Office: 210.733.3535
web: www.rvkarchitecture.com

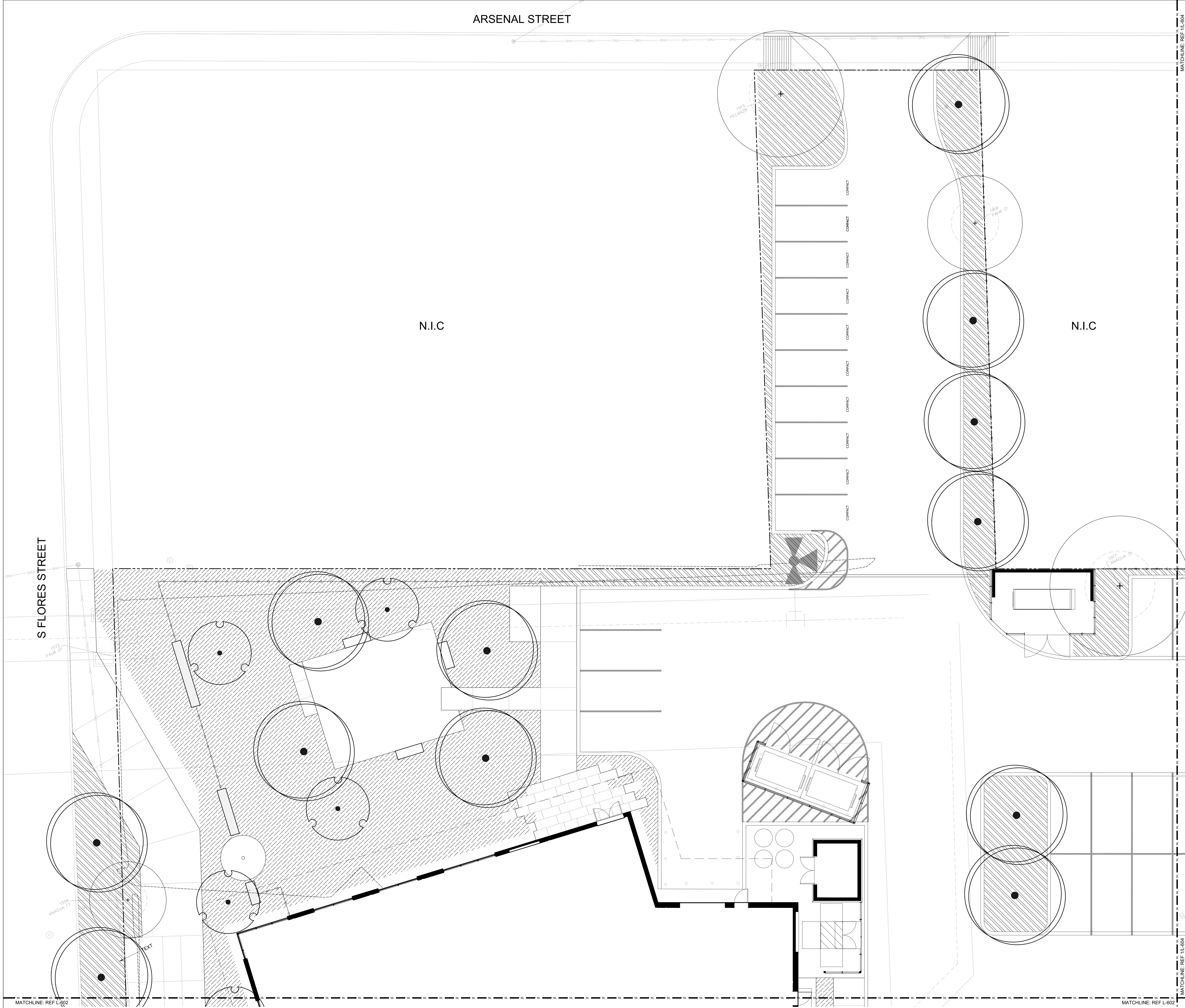
60% CONSTRUCTION DOCUMENTS

L-601

PLANTING PLAN A



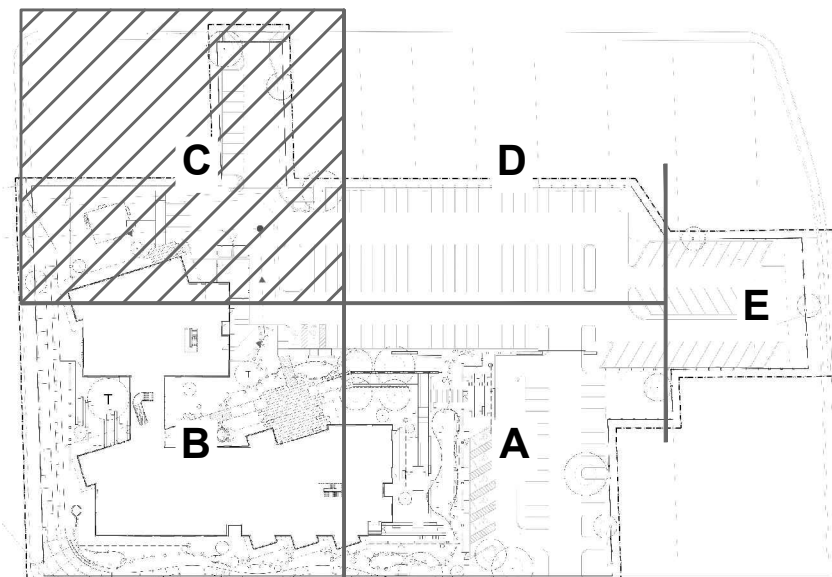
PLANTING SCHEDULE



SYMBOLS LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE

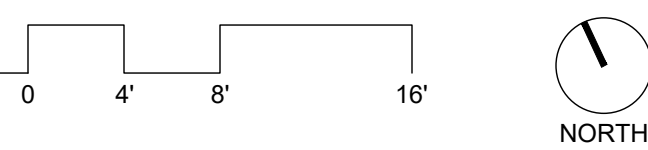
PLANTING SCHEDULE

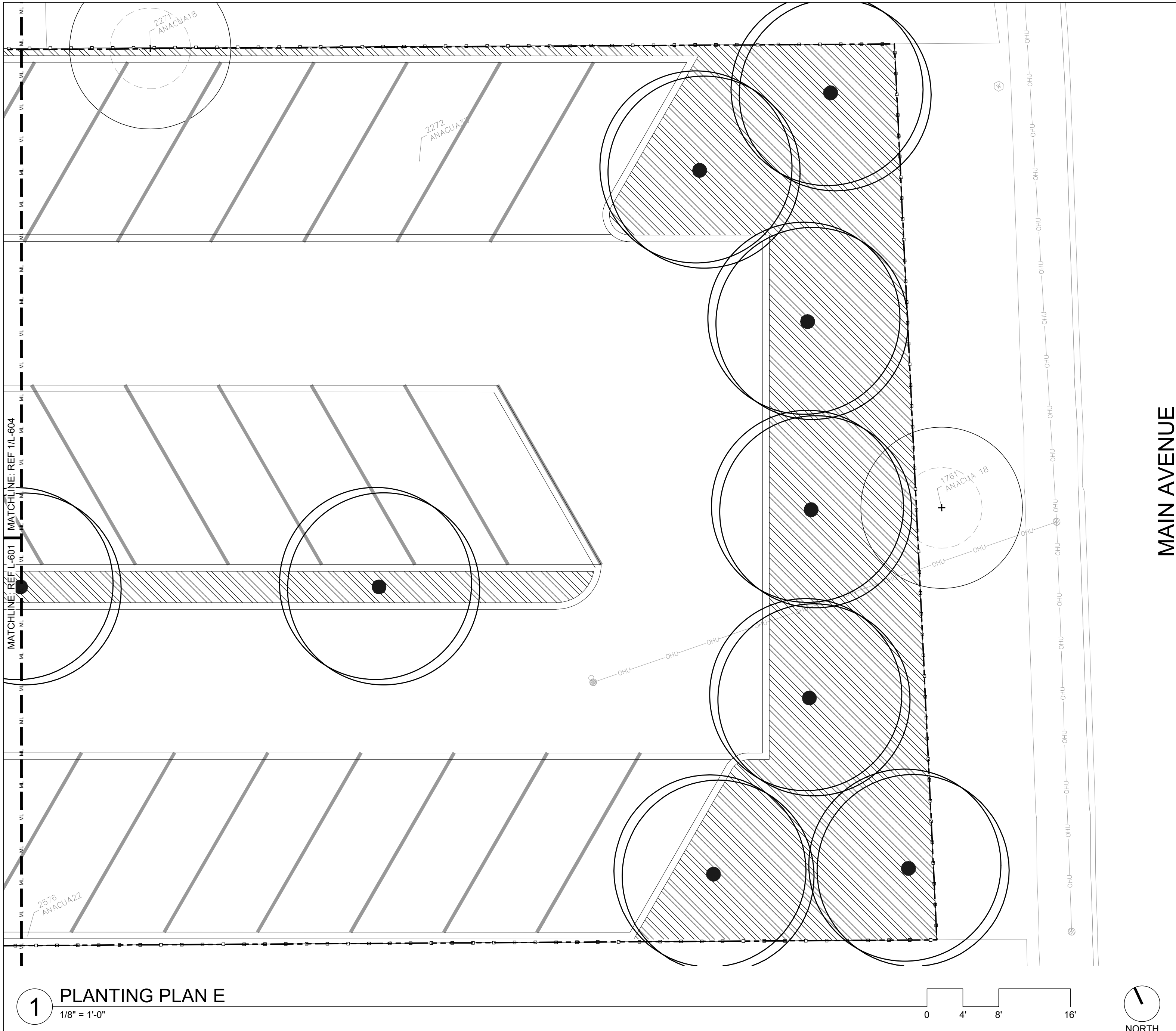
	CANOPY TREE Acer grandidentatum / Bigtooth Maple Carya illinoensis / Pecan Quercus laceyi / Lacey Oak Quercus macrocarpa / Burr Oak Quercus muehlenbergii / Chinkapin Oak Quercus texana / Nuttall Oak Quercus virginiana / Southern Live Oak Sapindus drummondii / Western Soapberry Taxodium distichum / Bald Cypress Ulmus crassifolia / Cedar Elm	71
	UNDERSTORY TREE Cercis canadensis texensis / Texas Redbud Chilopsis linearis / Desert Willow Diospyros texana / Texas Persimmon Ilex decidua / Possumhaw Ilex vomitoria / Yaupon Holly Leucaena retusa / Goldenball Leadtree Prosopis glandulosa / Honey Mesquite Prunus mexicana / Mexican Plum Ungnadia speciosa / Mexican Buckeye	43
	RAIN GARDEN Alysicarpus debilis / Whitebrush Andropogon gerardii / Big Bluestem Andropogon glomeratus / Bushy Bluestem Cephalanthus occidentalis / Buttonbush Chasmanthium latifolium / Northern Sea Oats Corns drummondii / Roughleaf Dogwood Malvastrum drummondii / Turk's Cap Muhlenbergia reverchonii / Seep Muhly Panicum virgatum / Switch Grass Phyla nodiflora / Frogfruit Rivina humilis / Pigeonberry Sabal minor / Dwarf Palmetto Thelypteris kunthii / River Fern Tripsacum dactyloides / Eastern Gama Grass	4,279 sf
	NATIVE SHRUBS AND PERENNIALS Agave americana / Century Plant Asclepias tuberosa / Butterfly Milkweed Bouteloua curtipendula / Side Oats Grama Callicarpa americana / American Beautyberry Campsis radicans / Trumpet Creeper Chasmanthium latifolium / Northern Sea Oats Clematis drummondii / Old Man's Beard Cooperia pedunculata / Rainlily Coreopsis lanceolata / Lanceleaf Tickseed Engelmannia peristenia / Engelmann's Daisy Hesperaloe parviflora / Red Yucca Leucophyllum frutescens / Texas Sage Malvastrum drummondii / Turk's Cap Merremia dissecta / Alamo Vine Muhlenbergia lindheimeri / Lindheimer's Muhly Muhlenbergia reverchonii / Seep Muhly Parthenocissus quinquefolia / Virginia Creeper Rudbeckia hirta / Black-eyed Susan Salvia farinacea / Mealy Sage Salvia greggii / Autumn Sage Schizachyrium scoparium / Little Bluestem Senna lindheimeriana / Velvet Leaf Senna	9,375 sf
	STREETSCAPE Wedelia texana / Orange Zexmenia Yucca pallida / Pale-leaf Yucca	11,900 sf



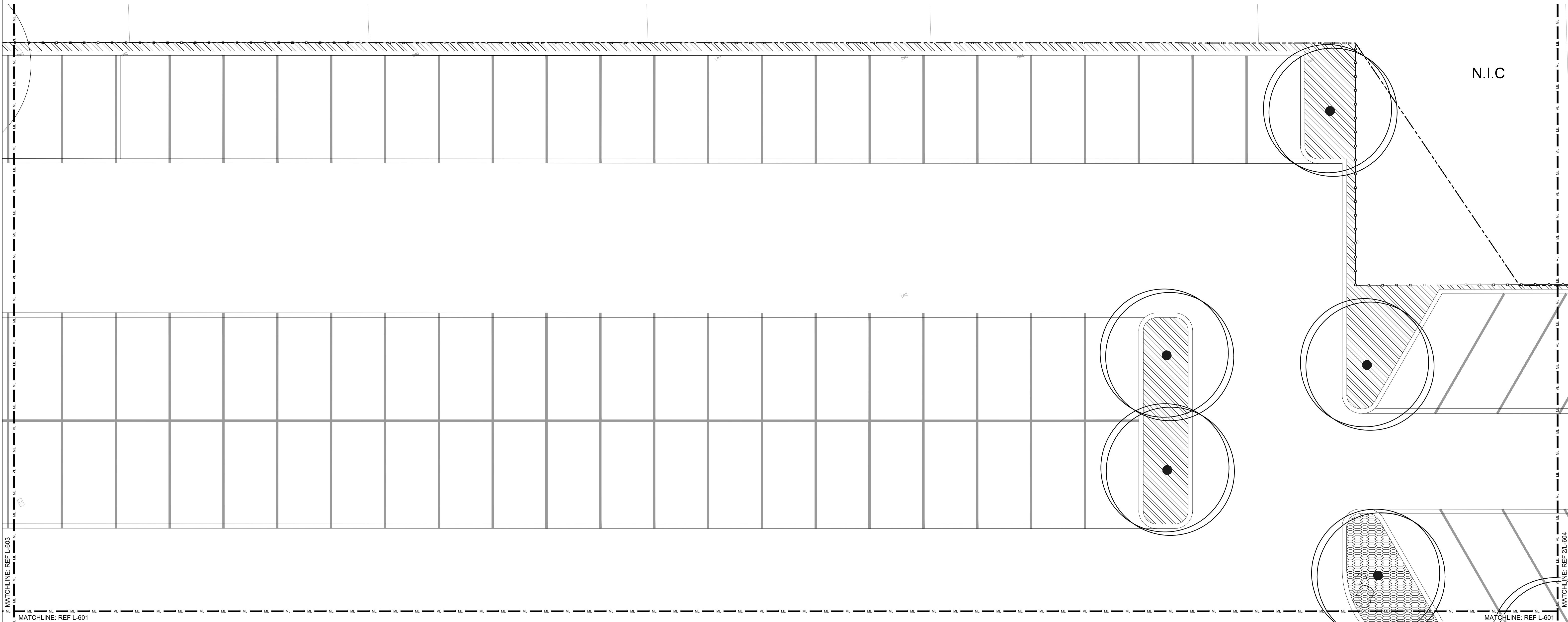
KEY PLAN: N.T.S.

1 PLANTING PLAN C
1/8" = 1'-0"





1 PLANTING PLAN E
1/8" = 1'-0"

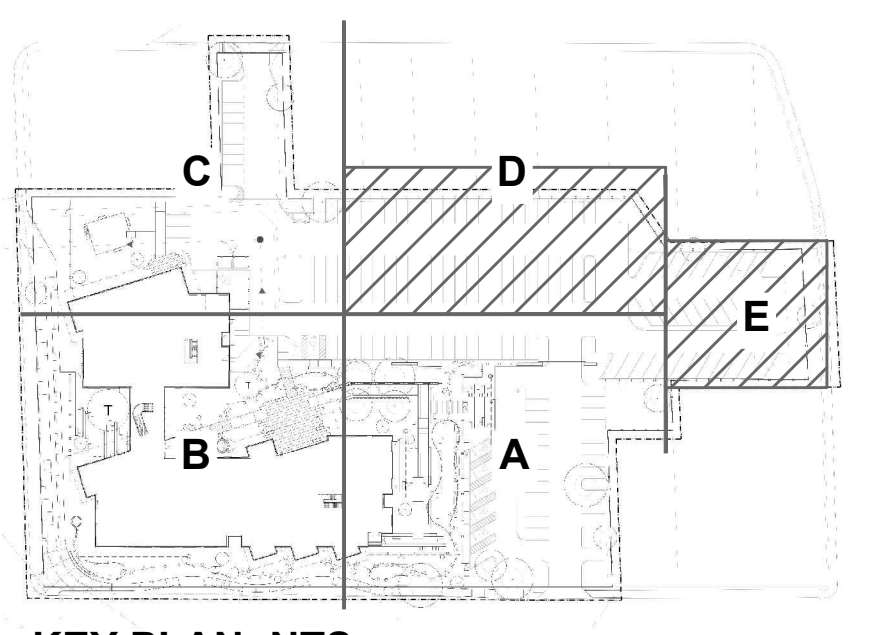


1 PLANTING PLAN D
1/8" = 1'-0"

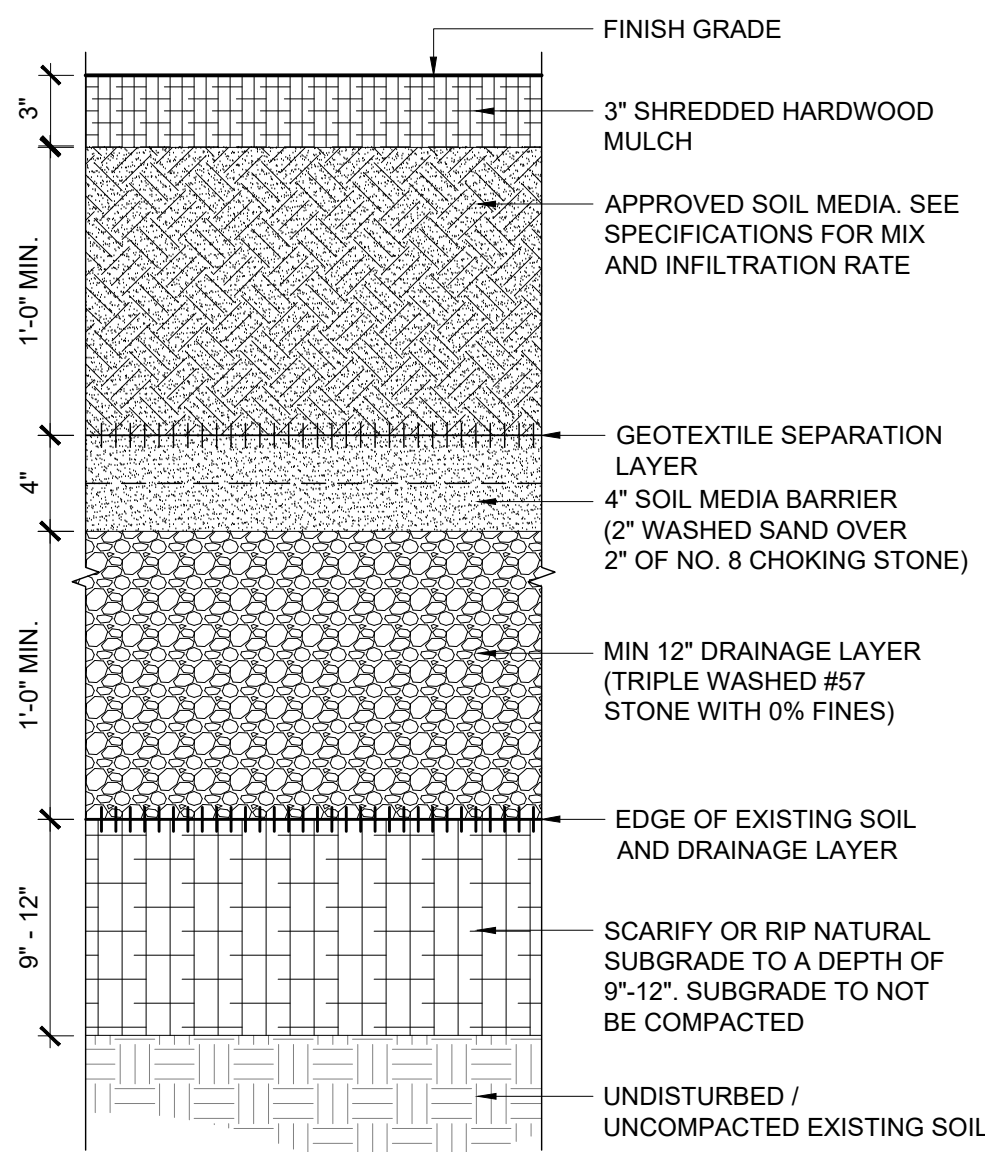
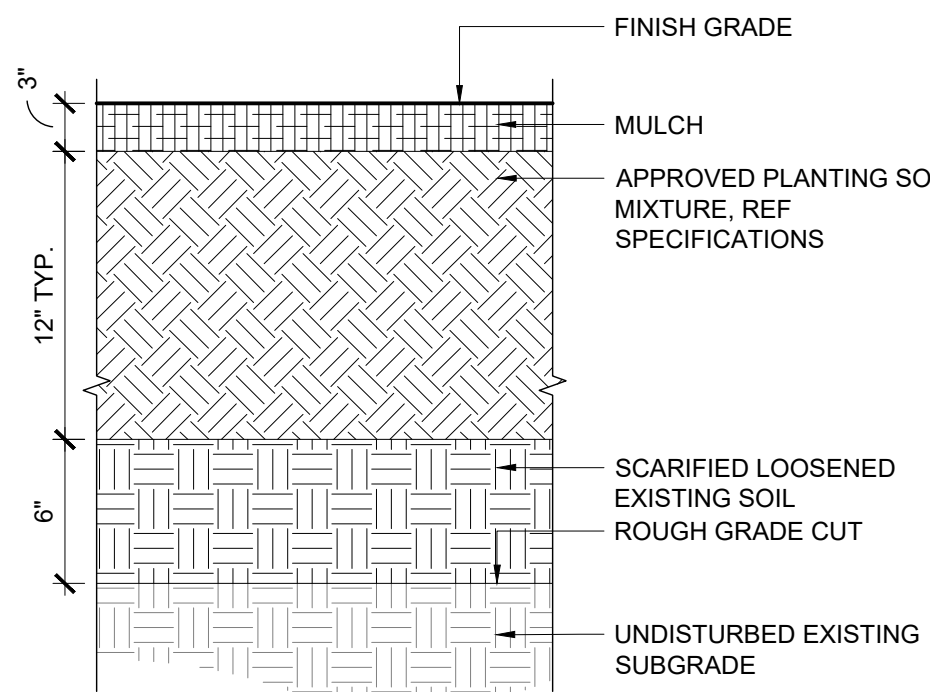
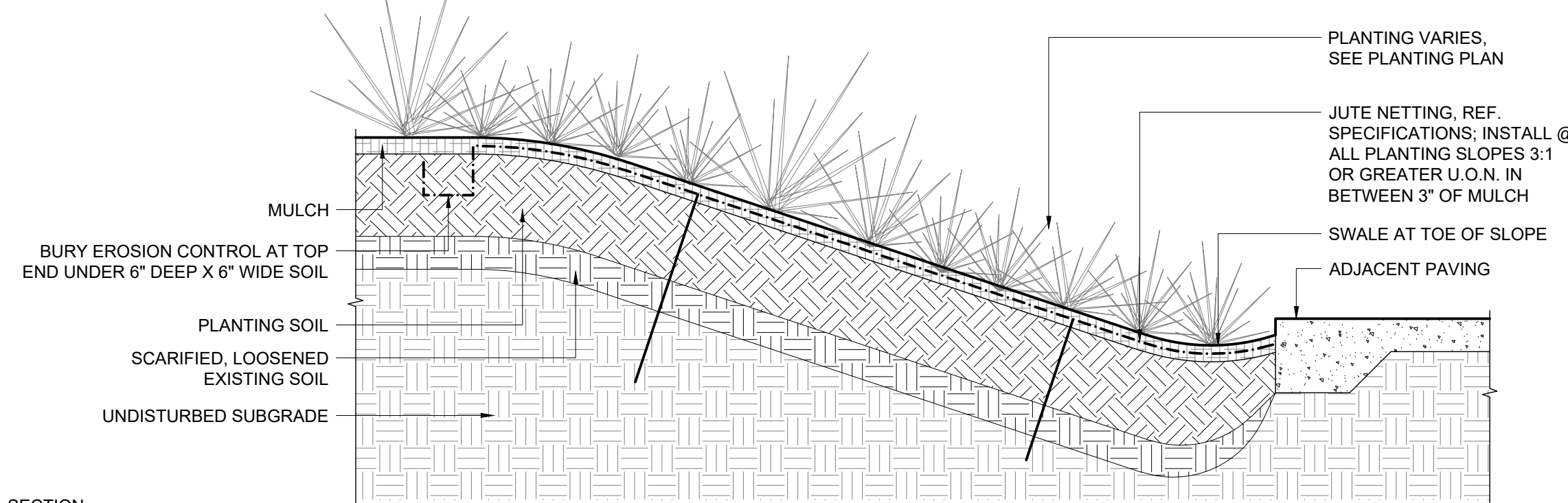
SYMBOLS LEGEND	
SYMBOL	ITEM
	EXISTING TREE TO PROTECT
	TRANSPLANTED TREE
	PROPERTY LINE
	LIMIT OF CONTRACT
	VEGETATED SWALE
	MATCHLINE

PLANTING SCHEDULE

	CANOPY TREE Acer grandidentatum / Bigtooth Maple Carya illinoensis / Pecan Quercus laceyi / Lacey Oak Quercus macrocarpa / Burr Oak Quercus muehlenbergii / Chinquapin Oak Quercus texana / Nuttall Oak Quercus virginiana / Southern Live Oak Sapindus drummondii / Western Soapberry Taxodium distichum / Bald Cypress Ulmus crassifolia / Cedar Elm	71
	UNDERSTORY TREE Cercis canadensis texensis / Texas Redbud Chilopsis linearis / Desert Willow Diospyros texana / Texas Persimmon Ilex decidua / Possumhaw Ilex vomitoria / Yaupon Holly Leucaena retusa / Goldenball Leadtree Prosopis glandulosa / Honey Mesquite Prunus mexicana / Mexican Plum Ungnadia speciosa / Mexican Buckeye	43
	RAIN GARDEN Aloysia gratissima / Whitebrush Andropogon gerardii / Big Bluestem Andropogon glomeratus / Bushy Bluestem Cephalanthus occidentalis / Buttonbush Chasmanthium latifolium / Northern Sea Oats Cornus drummondii / Roughleaf Dogwood Malvaviscus drummondii / Turk's Cap Muhlenbergia reverchonii / Seep Muhly Panicum virgatum / Switch Grass Phyla nodiflora / Frogfruit Rivina humilis / Pipeanberry Sabal minor / Dwarf Palmetto Thelypteris kunthii / River Fern Tripsacum dactyloides / Eastern Gama Grass	4,279 sf
	NATIVE SHRUBS AND PERENNIALS Agave americana / Century Plant Asclepias tuberosa / Butterfly Milkweed Bouteloua curtipendula / Side Oats Grama Callicarpa americana / American Beautyberry Campsis radicans / Trumpet Creeper Chasmanthium latifolium / Northern Sea Oats Clematis drummondii / Old Man's Beard Cooperia pedunculata / Rainlily Coreopsis lanceolata / Lanceleaf Tickseed Engelmannia peristensis / Engelmann's Daisy Hesperaloe parviflora / Red Yucca Leucophyllum frutescens / Texas Sage Malvaviscus drummondii / Turk's Cap Merremia dissecta / Alamo Vine Muhlenbergia lindheimeri / Lindheimer's Muhly Muhlenbergia reverchonii / Seep Muhly Parthenocissus quinquefolia / Virginia Creeper Rudbeckia hirta / Black-eyed Susan Salvia farinacea / Mealy Sage Salvia greggii / Autumn Sage Schizachyrium scoparium / Little Bluestem Senna lindheimeriana / Velvet Leaf Senna	9,375 sf
	STREETSCAPE Wedelia texana / Orange Zexmenia Yucca pallida / Pale-leaf Yucca	11,900 sf

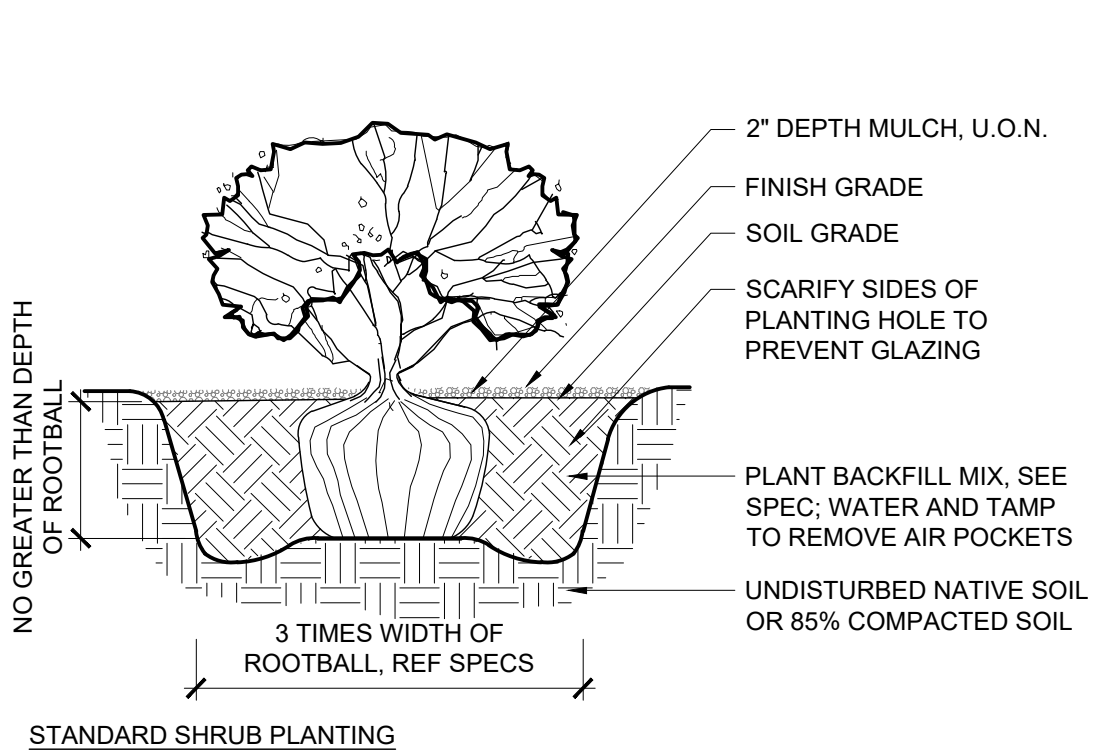
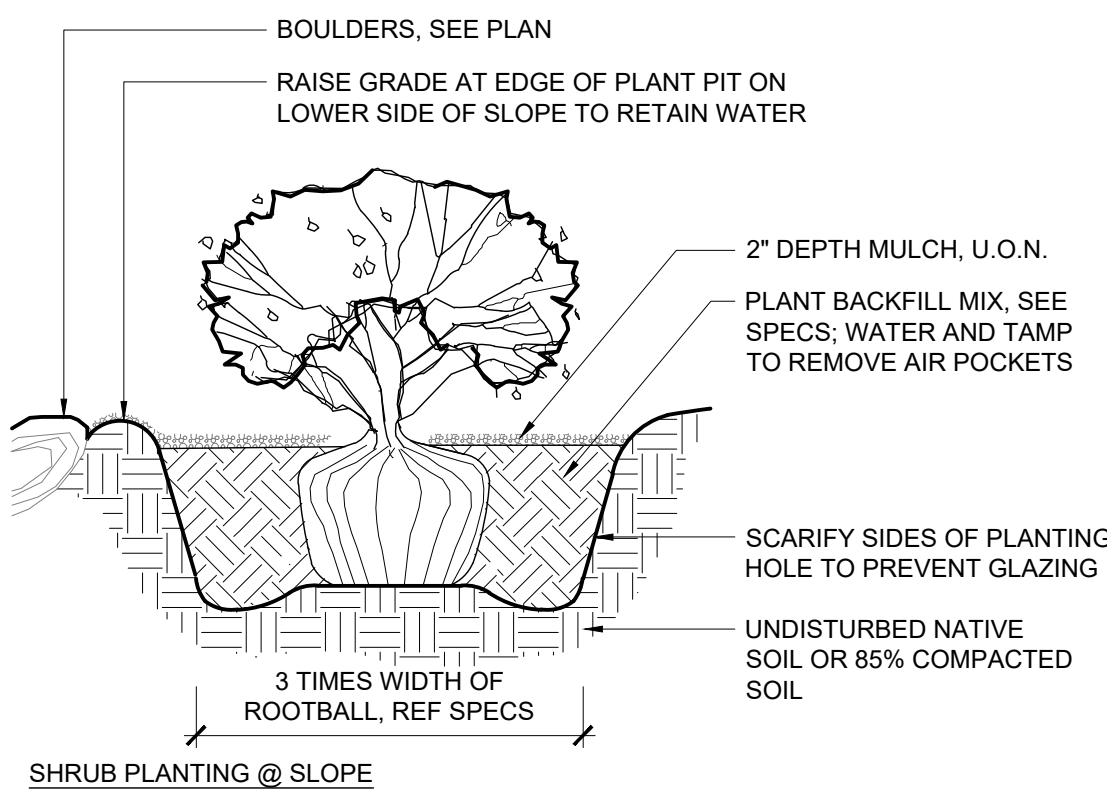


KEY PLAN: N.T.S.

NOTES:
1. REFERENCE SPECIFICATIONSSECTION
5 BIORETENTION SOIL PROFILE
NTSNOTES:
1. REFERENCE SPECIFICATIONSSECTION
6 PLANTING AREA SOIL PROFILE
1 1/2" = 1'-0"NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. OVERLAP ADJACENT ROLL SECTIONS & SECURE WITH STEEL PINS.
3. SECURE MAT AT TOP & BOTTOM OF SLOPE WITH STEEL PINS.SECTION
7 EROSION CONTROL MAT (JUTE NETTING)
3/4" = 1'-0"

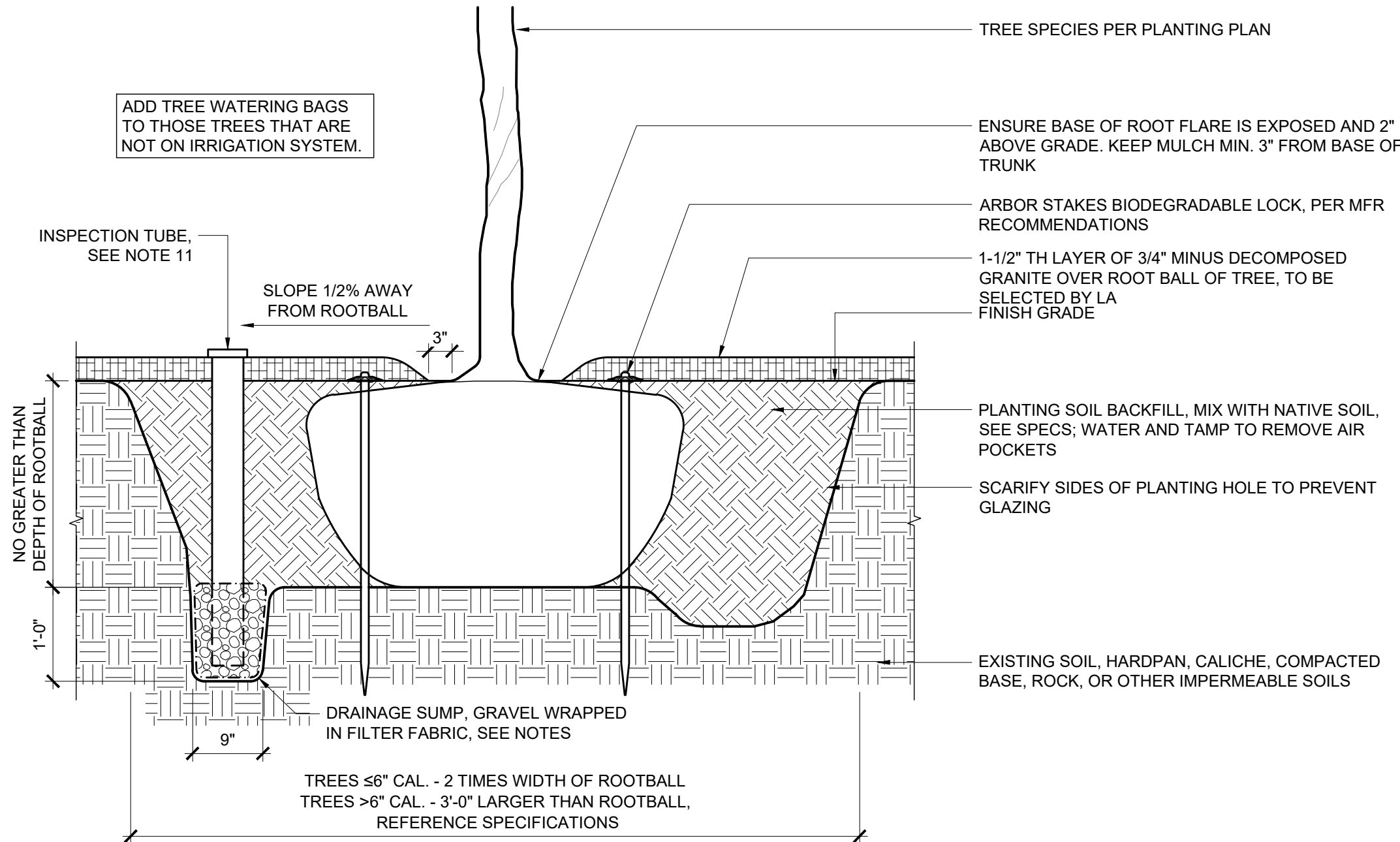
SHRUB PLANTING NOTES:

1. FILL PLANT PIT WITH WATER, IF WATER DOES NOT PERCOLATE IN 24 HOURS, REFER TO TREE PLANTING ON HARDPAN DETAIL AND NOTIFY OWNER'S REPRESENTATIVE.
2. POSITION PLANT FOR 'BEST SIDE' VIEW PER L.A. FIELD DIRECTIVE AND ORIENT SUNBURN SUSCEPTIBLE PLANTS PER ORIGINAL ROTATION.
3. SCORE THE ROOTBALL. MAKE A VERTICAL CUT 1/4- TO 1/2-INCH DEEP FOUR TIMES AROUND SIDES AND TWICE ACROSS THE BOTTOM.
4. TOP OF ROOTBALL SHALL BE FLUSH WITH OR UP TO 1" ABOVE SOIL GRADE.
5. ADD DEER PROTECTION MESH TO LARGE SHRUBS THAT MAY BE SUSCEPTIBLE TO GRAZING, AS DETERMINED BY OWNER'S REP AND L.A. ON SITE.
6. PROVIDE MOCK-UP OF TYPICAL SHRUB PLANTING FOR LA APPROVAL PRIOR TO PLANTING INSTALLATION INCLUDING PLACEMENT, REMOVAL OF CONTAINER, IRRIGATION/DRAINAGE, MULCH, STAKING.

SECTION
2 SHRUB PLANTING
NOT TO SCALE

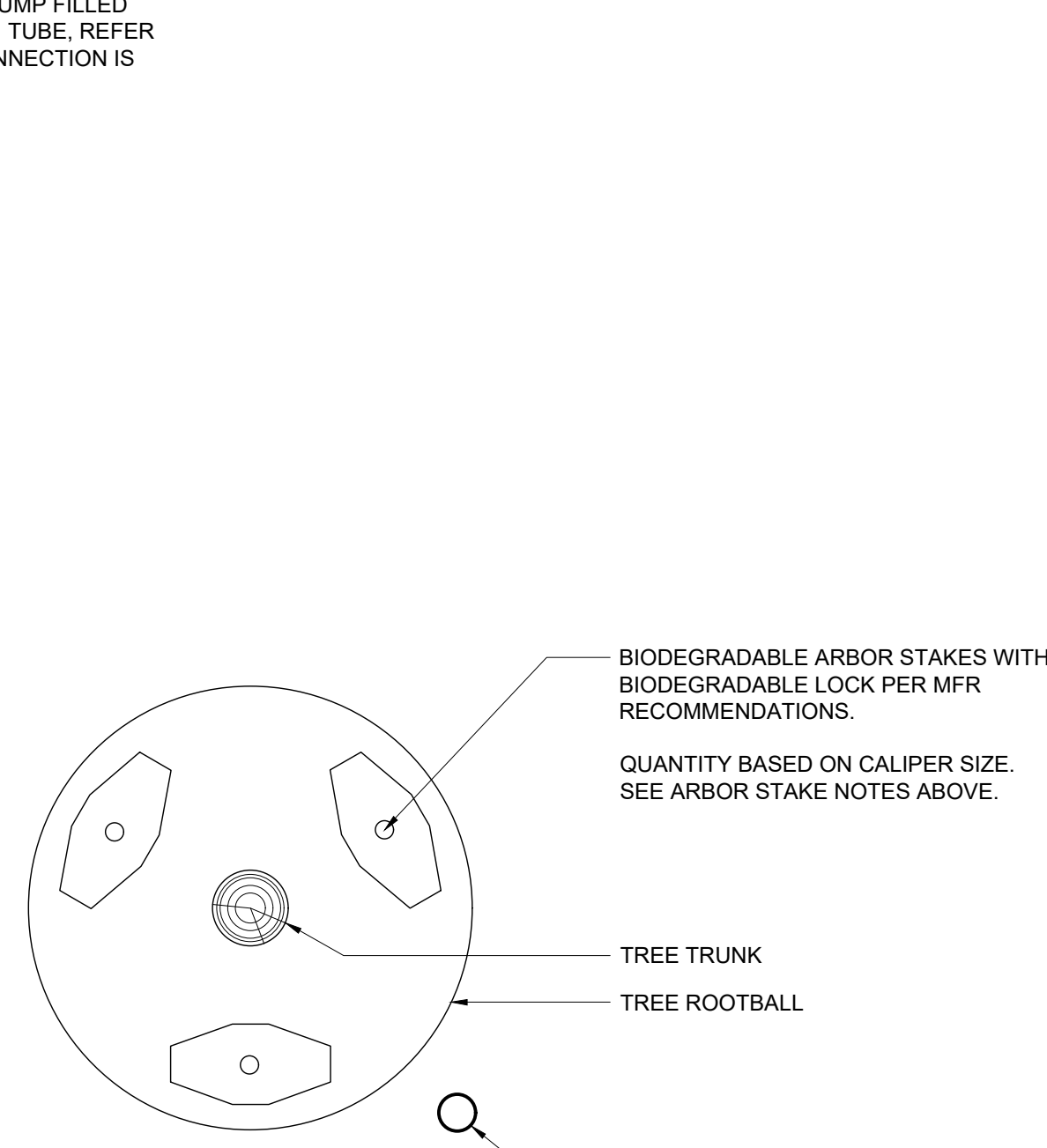
TREE PLANTING NOTES:

1. WATER TEST ALL TREE PITS PRIOR TO PLANTING. ALLOW PITS TO DRAIN FOR 24 HOURS. IF WATER DOES NOT DRAIN, NOTIFY LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE.
2. POSITION PLANT FOR 'BEST SIDE' VIEW, UNOBSTRUCTED PEDESTRIAN ACCESS AND ORIENT SUN-BURN SUSCEPTIBLE PLANTS PER ORIGINAL ROTATION.
3. SCORE ALL ROOTBALLS. MAKE A VERTICAL CUT 1/4- TO 1/2-INCH DEEP FOUR TIMES AROUND SIDES AND TWICE ACROSS THE BOTTOM.
4. THE ROOT CROWN SHALL BE 2" ABOVE FINISH SOIL GRADE. REMOVE EXCESS SURFACE SOIL FROM CONTAINER, EXPOSING CROWN & ROOT FLARE. TREES THAT SETTLE TO BELOW THE 1" ABOVE FINISH SOIL GRADE LEVEL WILL BE DEEMED TOO DEEP (SEE NOTE 7).
5. SALVAGED TREES WILL NOT REQUIRE STAKING.
6. IF TREE OR PLANT PITS ARE EXCAVATED BEYOND THE OPTIMAL PLACEMENT DEPTH, CONTRACTOR SHALL REPLACE SOIL UNDER THE ROOTBALL WITH EXISTING SOIL FROM SITE AND MECHANICALLY TAMP SOIL TO 90% COMPACTION UNTIL THE OPTIMAL PLANT PLACEMENT DEPTH IS ACHIEVED.
7. ALL TREES PLANTED TOO DEEP OR THAT HAVE SUNKEN 2" OR MORE DURING THE MAINTENANCE/WARRANTY PERIOD WILL BE REPLACED BY LANDSCAPE CONTRACTOR AT LANDSCAPE CONTRACTOR'S EXPENSE.
8. PROVIDE DEER PROTECTION MESH TO ALL TREES THAT MAY BE SUSCEPTIBLE TO GRAZING, AS DETERMINED BY OWNER'S REP AND LANDSCAPE ARCHITECT ON SITE.
9. PROVIDE MOCK-UP OF TYPICAL TREE PLANTING FOR LA APPROVAL PRIOR TO PLANTING INSTALLATION INCLUDING TREE PLACEMENT, REMOVAL OF BASKET/BURLAP, IRRIGATION/DRAINAGE, MULCH, AND STAKING.
10. REMOVE BOX OR CONTAINER AT TIME OF PLANTING.
11. DRAINAGE GRAVEL TO BE WASHED 3/4" - 1 1/2" DRAINAGE GRAVEL, WRAPPED IN FV 402 MIRAFI FILTER FABRIC.
12. REFER TO NURSERY STANDARDS FOR ROOT BALL SIZING REQUIREMENTS.
13. SET TOPMOST STRUCTURAL ROOTS WITHIN 1' OF FINISH GRADE.
14. SPREAD MAJOR ROOTS AWAY FROM ROOTBALL. APPLY HYDROGEL POLYMER TO EXPOSED ROOTS. CUT ANY ENCIRCLING ROOTS. PACK PLANTING BACKFILL AROUND ROOTS.
15. DRAINAGE SUMP: MINIMUM 8" DIAMETER SUMP FILLED WITH DRAINAGE GRAVEL AND INSPECTION TUBE. REFER TO SPECIFICATIONS. IF STORMWATER CONNECTION IS INDICATED, SUMP PIT IS NOT REQUIRED.

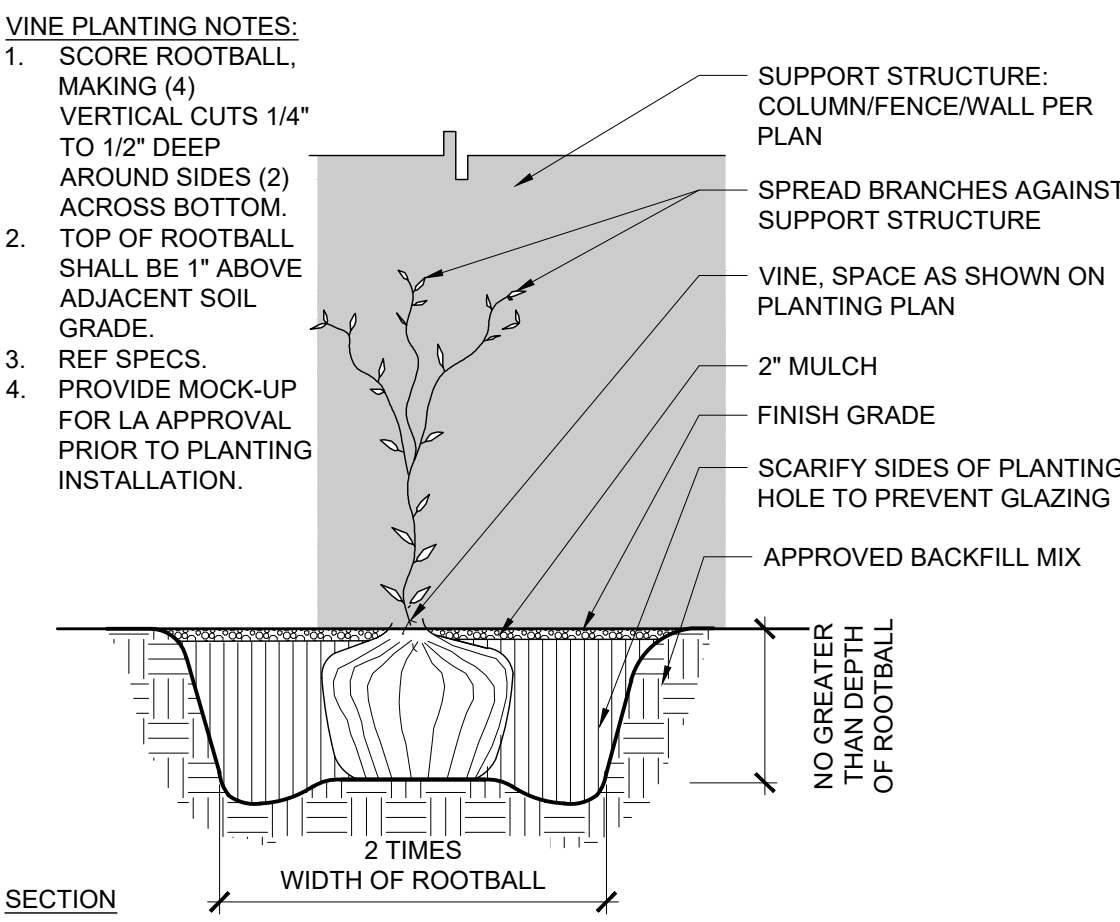
SECTION
1 TYPICAL TREE PLANTING DETAIL
3/4" = 1'-0"

ARBOR STAKE NOTES:

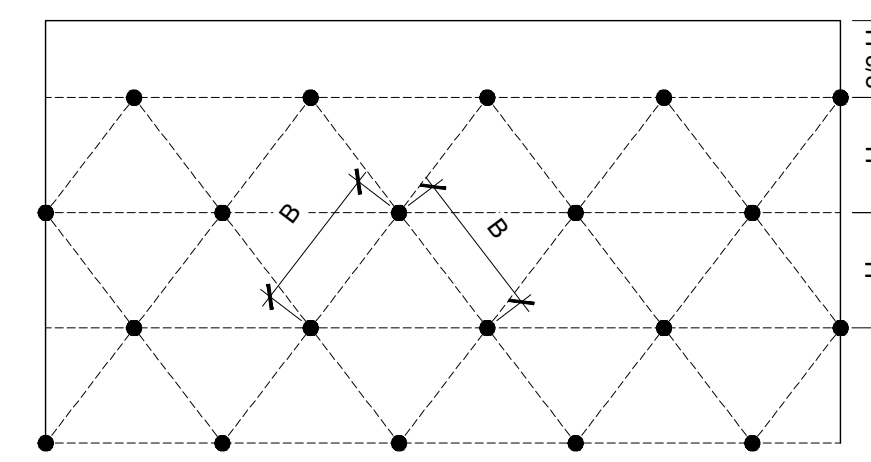
1. MINIMUM STAKE QUANTITY IS (3) THEN ADD (1) STAKE PER CALIPER INCH GREATER THAN 3.
2. STAKES SHALL BE DRIVEN THROUGH THE ROOT BALL AS SHOWN.
3. ENSURE TRUNK BASE (ROOT FLARE) IS FREE FROM STAKING AND OTHER MATERIALS.
4. ABOVE GROUND GUYING AND/OR METALLIC STAKING SYSTEMS NOT ALLOWED AND SHALL BE REJECTED.
5. CONTRACTOR TO INSTALL EXTENDED LENGTH STAKES FOR SUSPENDED PAVING SYSTEMS PER MANUFACTURER RECOMMENDATIONS.
6. INSTALL STAKING SYSTEM PER MANUFACTURER'S INSTRUCTIONS. (WWW.ARBORSTAKES.COM)



PLAN - TYPICAL TREE STAKING

SECTION
4 VINE PLANTING
NOT TO SCALE

TRIANGULAR SPACING = B	DISTANCE BETWEEN ROWS = H	TOTAL AREA (SF) PER PLANT
6"	5"	0.21
8"	7"	0.39
9"	8"	0.50
10"	8 1/2"	0.59
12"	10 1/2"	0.88
15"	13"	1.35
18"	15 1/2"	1.94
21"	18"	2.63
24" (2')	21"	3.50
30"	26"	5.42
36"	31"	7.75
48"	41 1/2"	13.83
72"	62 1/2"	31.25

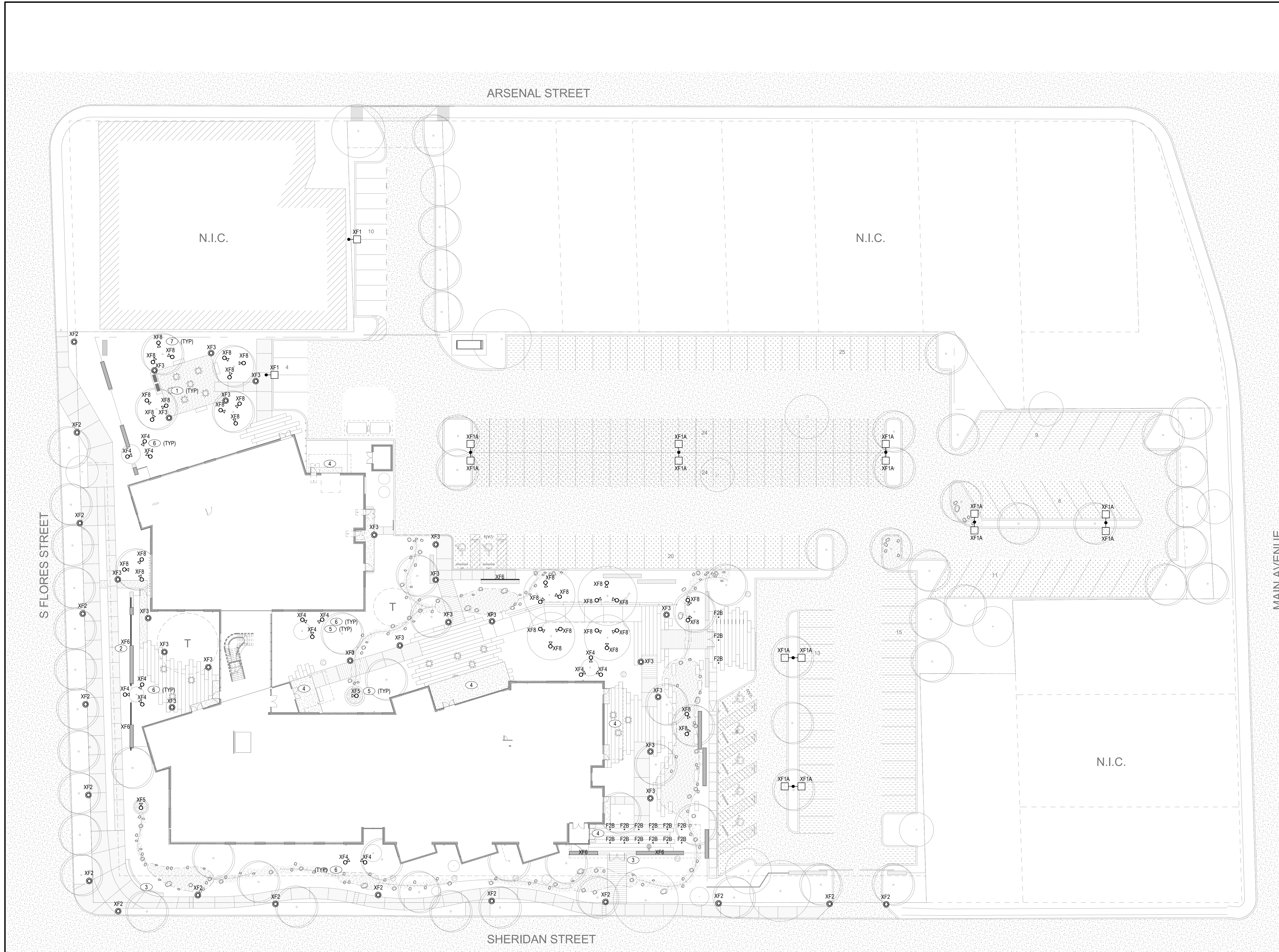
SECTION
3 TRIANGULAR SPACING DIAGRAM
NOT TO SCALE

SHEET NOTES

- REFER TO ARCHITECTURAL AND LANDSCAPE DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL LUMINAIRES. INFORM ENGINEER OF CONFLICTS.
- ALL LANDSCAPE LIGHTING TO BE TURNED OFF BETWEEN THE HOURS OF 12AM AND 6AM FOR COMPLIANCE WITH LEED LIGHT POLLUTION CREDIT REQUIREMENTS.
- CONTRACTOR SHALL USE CIRCUIT SIZES INDICATED IN NOTES OR RESPECTIVE SCHEDULES (PNL, MCC, ETC.) AND INFORMATION IN THE FEEDER AND BRANCH CIRCUIT SCHEDULES. IN ACCESSIBLE CEILING AREAS ONLY, THE CONTRACTOR HAS THE OPTION TO USE EITHER MANUFACTURED (MODULAR SOFT-WIRED) WIRING SYSTEM AS DESCRIBED IN THE NATIONAL ELECTRICAL CODE-ARTICLE 604, OR MC CABLE UNLESS SPECIFICATIONS INDICATE OTHERWISE. MANUFACTURED WIRING SYSTEM SUPPLIER SHALL PROVIDE SHOP DRAWINGS OF WIRING SYSTEM LAYOUT FOR REVIEW.
- ALL LOW VOLTAGE CABLING TO LIGHTING FIXTURES AND CONTROL DEVICES SHALL BE EXTERIOR RATED.
- ALL BRANCH CIRCUITS ARE TO MAINTAIN A MAXIMUM VOLTAGE DROP OF 3%. REFER TO VOLTAGE DROP TABLE ON DRAWINGS E-500 FOR WIRING SIZING REQUIRED BASED ON FIELD INSTALLED LENGTH.
- THE MEANS OF EGRESS WILL BE ILLUMINATED TO A LEVEL OF NOT LESS THAN 1 FOOTCANDLE AT THE WALKING SURFACE AT ALL TIMES.
- ALL EMERGENCY LUMINAIRE DESIGNATED BY SHADING AND "EM" SHALL BE POWERED BY EMERGENCY LIGHTING SYSTEM THAT WILL AUTOMATICALLY PROVIDE ILLUMINATION FOR A DURATION OF NOT LESS THAN 90 MINUTES.

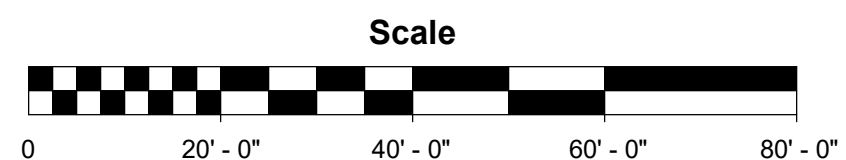
KEYED NOTES

- REFER TO LANDSCAPE PLANS FOR ACCURATE FIXTURE LOCATIONS AND MOUNTING DETAILS FOR LANDSCAPE LIGHTING.
- LANDSCAPE/ACCENT LIGHTING AT THIS LOCATION WILL NEED TO BE REVIEWED FOR CONFORMANCE WITH "SITES" AND LEED LIGHT POLLUTION REQUIREMENTS.
- DESIGN OF SIGNAGE AT THIS LOCATION WILL NEED TO BE REVIEWED FOR CONFORMANCE WITH "SITES" AND LEED LIGHT POLLUTION REQUIREMENTS.
- REFER TO FLOOR PLANS FOR BUILDING CANOPY LIGHTING LOCATIONS.
- LANDSCAPE/ACCENT LIGHTING TO PROVIDE UPLIGHTING FOR TREES. REFER TO LANDSCAPE PLANS FOR MORE DETAIL.
- LANDSCAPE BACKGROUND IS PRELIMINARY PENDING COORDINATION WITH LANDSCAPE DESIGNER AND ARCHITECT.
- COORDINATE REMOTE DRIVER LOCATION WITH LANDSCAPE DESIGNER OR ARCHITECT.



1 SITE LIGHTING PLAN

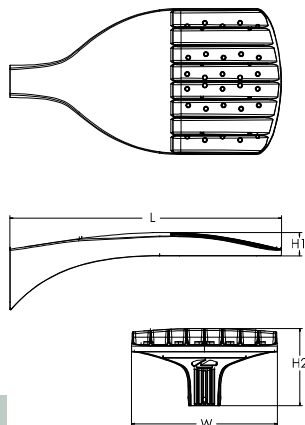
1" = 20'-0"





Hit the Tab key or mouse over the page to see all interactive elements.

EPA:	0.44 ft ² (0.04 m ²)
Length:	26.18" (66.5 cm)
Width:	14.06" (35.7 cm)
Height H1:	2.26" (5.7 cm)
Height H2:	7.46" (18.9 cm)
Weight:	23 lbs (10.4 kg)



Design Select options indicated by this color background.

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.



design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.

*See ordering tree for details

EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED							
Series	LEDs	Color temperature ²	Color Rendering Index ²	Distribution		Voltage	Mounting
DSX0 LED	Forward optics	(this section 70CRI only)		AFR Automotive front row	T5M Type V medium	MVOLT (120V-277V) ⁴	Shipped included
	P1 P5	30K 3000K	70CRI	T5LG Type V low glare	TSLG Type V low glare	HVOLT (347V-480V) ^{5,6}	SPA Square pole mounting (#8 drilling, 3.5" min. SQ pole)
	P2 P6	40K 4000K	70CRI	T1S Type I short	T5W Type V wide	XVOLT (277V-480V) ^{7,8}	RPA Round pole mounting (#8 drilling, 3" min. RND pole)
	P3 P7	50K 5000K	70CRI	T2M Type II medium	BLC3 Type III backlight control ¹	120 ^{16, 24}	SPA5 Square pole mounting (#5 drilling, 3" min. SQ pole) ⁹
	P4	(this section 80CRI only, extended lead times apply)		T3M Type III medium	BLC4 Type IV backlight control ¹	208 ^{16, 24}	RPA5 Round pole mounting (#5 drilling, 3" min. RND pole) ³
	Rotated optics			T3LG Type III low glare ³	LCCO Left corner cutoff ³	240 ^{16, 24}	SPA8N Square narrow pole mounting (#8 drilling, 3" min. SQ pole)
	P10 ¹ P12 ¹	27K 2700K	80CRI	T4M Type IV medium	RCCO Right corner cutoff ³	277 ^{16, 24}	WBA Wall bracket ¹⁰
	P11 ¹ P13 ¹	30K 3000K	80CRI	T4LG Type IV low glare ³		347 ^{16, 24}	MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)
		35K 3500K	80CRI	TFTM Forward throw medium		480 ^{16, 24}	
		40K 4000K	80CRI				
	50K 5000K	80CRI					

Control options		Other options		Finish <i>(required)</i>	
Shipped installed		Shipped installed		DDBXD Dark Bronze	
NLTAIR2 PIRHN	nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40" mounting height, ambient sensor enabled at 2fc ^{11, 12, 18, 19}	PER7	Seven-pin receptacle only (controls ordered separate) ^{14, 19}	HS	Houseside shield (black finish standard) ²⁰
PIR	High/low, motion/ambient sensor, 8-40" mounting height, ambient sensor enabled at 2fc ^{13, 18, 19}	FA0	Field adjustable output ^{15, 19}	L90	Left rotated optics ¹
PER	NEMA twist-lock receptacle only (controls ordered separate) ¹⁴	BL30	Bi-level switched dimming, 30% ^{16, 19}	R90	Right rotated optics ¹
PER5	Five-pin receptacle only (controls ordered separate) ^{14, 19}	BL50	Bi-level switched dimming, 50% ^{16, 19}	CCE	Coastal Construction ²¹
		DMG	0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷	HA	50°C ambient operation ²²
				BAA	Buy America(n) Act Compliant
				SF	Single fuse (120, 277, 347V) ²⁴
				DF	Double fuse (208, 240, 480V) ²⁴
				Shipped separately	
				EGSR	External Glare Shield (reversible, field install required, matches housing finish)
				BSDB	Bird Spikes (field install required)
					DBLXD Black
					DNAXD Natural Aluminum
					DWHXD White
					DBBTXD Textured dark bronze
					DBLBXD Textured black
					DNATXD Textured natural aluminum
					DWHGXD Textured white



COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
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DSX0-LED
Rev. 03/26/24
Page 1 of 9



PROJECT: SARA SHERIDAN

TYPE:
XF1 XF1A

APPENDIX: LIGHTING FIXTURE CUTSHEET PACKAGE

Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ²³
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ²³
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ²³
DSHORT SBK	Shorting cap ²³
DSXHS P#	House-side shield (enter package number P1-7, P10-13 in place of #)
DSXRPAS (FINISH)	Round pole adapter (#8 drilling, specify finish)
DSXRPAS (FINISH)	Round pole adapter #5 drilling (specify finish)
DSXSPAS (FINISH)	Square pole adapter #5 drilling (specify finish)
DSXEGSR (FINISH)	External glare shield (specify finish)
DSXBSDB (FINISH)	Bird spike deterrent bracket (specify finish)

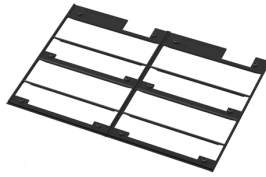
NOTES

- 1 Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option L90 or R90.
- 2 30K, 40K, and 50K available in 70CRI and 80CRI. 27K and 35K only available with 80CRI. Contact Technical Support for other possible combinations.
- 3 T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.
- 4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- 5 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
- 6 HVOLT not available with package P1, P2 and P10 when combined with option NLTAIR2 PIRHN or option PIR.
- 7 XVOILT operates with any voltage between 277V and 480V (50/60 Hz).
- 8 XVOILT not available in packages P1, P2 or P10. XVOILT not available with fusing (SF or DF).
- 9 SPAS and RPAS for use with #5 drilling only (Not for use with #8 drilling).
- 10 VBA cannot be combined with Type 5 distributions plus photocell (PER).
- 11 NLTAIR2 and PIRHN must be ordered together. For more information on Light Air 2.
- 12 NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50 and DMG. NLTAIR2 PIRHN not available with P1, P2 and P10 using HVOLT. NLTAIR2 PIRHN not available with P1, P2 and P10 using XVOILT. NLTAIR2 PIRHN not available with P1 using MVOLT.
- 13 PIR not available with NLTAIR2, PER, PER5, PER7, FAO BL30, BL50 and DMG. PIR not available with P1, P2 and P10 using HVOLT. PIR not available with P1, P2 and P10 using XVOILT. PIR not available with P1 using MVOLT.
- 14 PER/PER5/PER7 not available with NLTAIR2, PIR, BL30, BL50. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
- 15 FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, or DMG.
- 16 BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, FAO and DMG. BL30 or BL50 must specify 120, 277 or 347V. Consult tech support for 208, 240 or 480V.
- 17 DMG not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50 and FAO.
- 18 Reference Motion Sensor Default Settings table on page 4 to see functionality.
- 19 Reference Controls Options table on page 4.
- 20 Option HS not available with T3LG, T4LG, BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- 21 CCE option not available with option BS and EGSR. Contact Technical Support for availability.
- 22 Option HA not available with performance packages P6, P7, P12 and P13.
- 23 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
- 24 Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOILT not available with fusing (SF or DF).

Shield Accessories



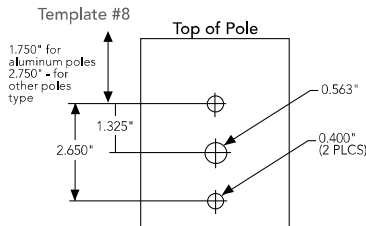
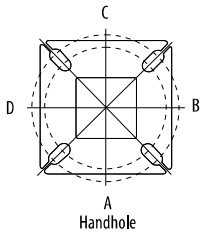
External Glare Shield (EGSR)



House Side Shield (HS)

Drilling

HANDHOLE ORIENTATION (from top of pole)



Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
Minimum Acceptable Outside Pole Dimension							
SPA	#8	3.5"	3.5"	3.5"	3.5"	3.5"	3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPAS	#5	3"	3"	3"	3"	3"	3"
RPAS	#5	3"	3"	3"	3"	3"	3"
SPA8N	#8	3"	3"	3"	3"	3"	3"

DSX0 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX0 with SPA	0.44	0.88	0.96	1.18	--	1.16
DSX0 with SPAS, SPA8N	0.51	1.02	1.06	1.26	--	1.29
DSX0 with RPA, RPAS	0.51	1.02	1.06	1.26	1.24	1.29
DSX0 with MA	0.64	1.28	1.24	1.67	1.70	1.93



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PROJECT: SARA SHERIDAN

TYPE:
XF1 XF1A

APPENDIX: LIGHTING FIXTURE CUTSHEET PACKAGE

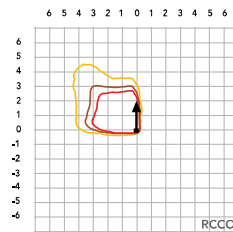
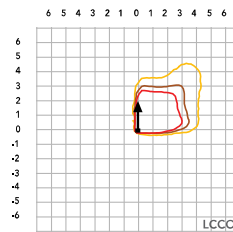
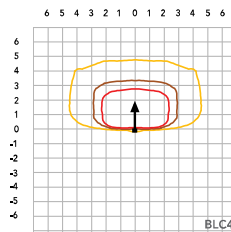
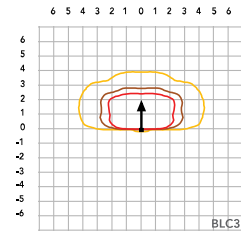
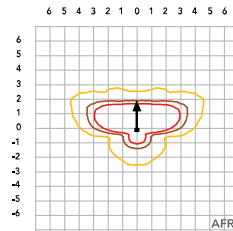
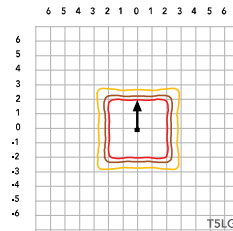
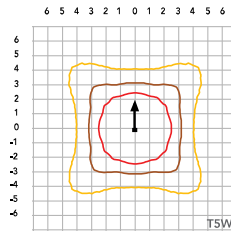
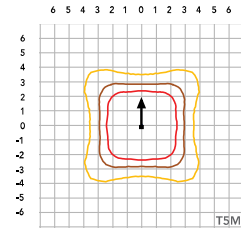
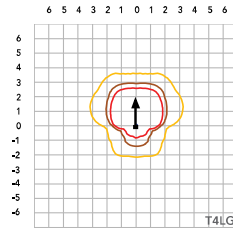
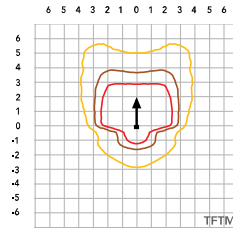
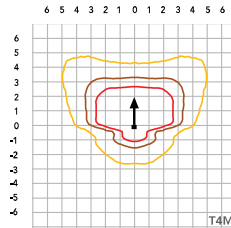
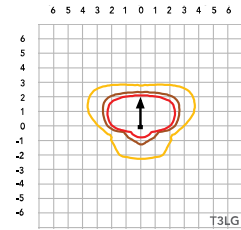
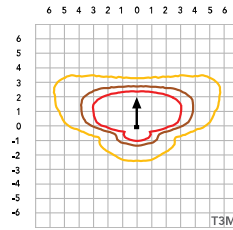
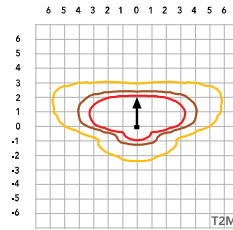
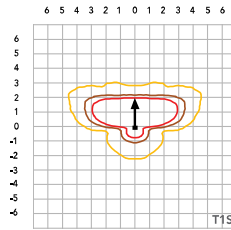
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [homepage](https://www.lithonia.com).

Isofootcandle plots for the DSX0 LED P7 40K 70CRI. Distances are in units of mounting height (20').

LEGEND

- 0.1 fc
- 0.5 fc
- 1.0 fc



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PROJECT: SARA SHERIDAN

TYPE:
XF1 XF1A

APPENDIX: LIGHTING FIXTURE CUTSHEET PACKAGE

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.94
50,000	0.89
100,000	0.80

FAO Dimming Settings

FAO Position	% Wattage	% Lumen Output
8	100%	100%
7	93%	95%
6	80%	85%
5	66%	73%
4	54%	61%
3	41%	49%
2	29%	36%
1	15%	20%

*Note: Calculated values are based on original performance package data. When calculating new values for given FAO position, use published values for each package based on input watts and lumens by optic type.

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current (mA)	Wattage	120V	208V	240V	277V	347V	480V
Forward Optics (Non-Rotated)	P1	20	530	34	0.28	0.16	0.14	0.12	0.10	0.07
	P2	20	700	45	0.38	0.22	0.19	0.16	0.13	0.09
	P3	20	1050	69	0.57	0.33	0.29	0.25	0.20	0.14
	P4	20	1400	94	0.78	0.45	0.39	0.34	0.27	0.19
	P5	40	700	89	0.75	0.43	0.38	0.33	0.26	0.19
	P6	40	1050	136	1.14	0.66	0.57	0.49	0.39	0.29
	P7	40	1300	170	1.42	0.82	0.71	0.62	0.49	0.36
Rotated Optics (Requires L90 or R90)	P10	30	530	51	0.42	0.24	0.21	0.18	0.15	0.11
	P11	30	700	67	0.57	0.33	0.28	0.25	0.20	0.14
	P12	30	1050	103	0.86	0.50	0.43	0.37	0.30	0.22
	P13	30	1300	129	1.07	0.62	0.54	0.46	0.37	0.27

LED Color Temperature / Color Rendering Multipliers

	70 CRI		80 CRI		90 CRI	
	Lumen Multiplier	Availability	Lumen Multiplier	Availability	Lumen Multiplier	Availability
5000K	102%	Standard	92%	Extended lead-time	71%	(see note)
4000K	100%	Standard	92%	Extended lead-time	67%	(see note)
3500K	100%	(see note)	90%	Extended lead-time	63%	(see note)
3000K	96%	Standard	87%	Extended lead-time	61%	(see note)
2700K	94%	(see note)	85%	Extended lead-time	57%	(see note)

Note: Some LED types are available as per special request. Contact Technical Support for more information.

Motion Sensor Default Settings

Option	Unoccupied Dimmed Level	High Level (when occupied)	Photocell Operation	Dwell Time	Ramp-up Time	Dimming Fade Rate
PIR	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min
NLTAIR2 PIRHN	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS (not available on DSX0)	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire. Cannot be used with other controls options that need the 0-10V leads.
PIR	Motion sensor with integral photocell. Sensor suitable for 8' to 40' mounting height.	Luminaires dim when no occupancy is detected.	Acuity Controls rSBG	Cannot be used with other controls options that need the 0-10V leads.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclipse.	nLight Air rSBG	nLight AIR sensors can be programmed and commissioned from the ground using the CLARITY Pro app. Cannot be used with other controls options that need the 0-10V leads.
BL30 or BL50	Integrated bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output	BLC device provides input to 0-10V dimming leads on all drivers providing either 100% or dimmed (30% or 50%) control by a secondary circuit	BLC UVOLT1	BLC device is powered off the 0-10V dimming leads, thus can be used with any input voltage from 120 to 480V



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PROJECT: SARA SHERIDAN

TYPE:
XF1 XF1A

APPENDIX: LIGHTING FIXTURE CUTSHEET PACKAGE

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K					40K					50K				
					(3000K, 70 CRI)					(4000K, 70 CRI)					(5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	33W	20	530	T1S	4,906	1	0	1	148	5,113	1	0	1	154	5,213	1	0	1	157
				T2M	4,545	1	0	2	137	4,736	1	0	2	143	4,829	1	0	2	145
				T3M	4,597	1	0	2	138	4,791	1	0	2	144	4,885	1	0	2	147
				T3LG	4,107	1	0	1	124	4,280	1	0	1	129	4,363	1	0	1	131
				T4M	4,666	1	0	2	141	4,863	1	0	2	146	4,957	1	0	2	149
				T4LG	4,244	1	0	1	128	4,423	1	0	1	133	4,509	1	0	1	136
				TFTM	4,698	1	0	2	141	4,896	1	0	2	147	4,992	1	0	2	150
				T5M	4,801	3	0	1	145	5,003	3	0	1	151	5,101	3	0	1	154
				T5W	4,878	3	0	1	147	5,084	3	0	2	153	5,183	3	0	2	156
				T5LG	4,814	2	0	1	145	5,018	2	0	1	151	5,115	2	0	1	154
				BLC3	3,344	0	0	1	101	3,485	0	0	1	105	3,553	0	0	1	107
				BLC4	3,454	0	0	2	104	3,599	0	0	2	108	3,670	0	0	2	111
				RCCO	3,374	0	0	1	102	3,517	0	0	1	106	3,585	0	0	1	108
				LCCO	3,374	0	0	1	102	3,517	0	0	1	106	3,585	0	0	1	108
				AFR	4,906	1	0	1	148	5,113	1	0	1	154	5,213	1	0	1	157
				T1S	6,328	1	0	1	140	6,595	1	0	1	146	6,724	1	0	1	149
P2	45W	20	700	T2M	5,862	1	0	2	130	6,109	1	0	2	135	6,228	1	0	2	138
				T3M	5,930	1	0	3	131	6,180	1	0	3	137	6,301	1	0	3	140
				T3LG	5,297	1	0	1	117	5,521	1	0	1	122	5,628	1	0	1	125
				T4M	6,018	1	0	3	133	6,272	1	0	3	139	6,395	1	0	3	142
				T4LG	5,474	1	0	1	121	5,705	1	0	1	126	5,816	1	0	1	129
				TFTM	6,060	1	0	3	134	6,316	1	0	3	140	6,439	1	0	3	143
				T5M	6,192	3	0	1	137	6,453	3	0	2	143	6,579	3	0	2	146
				T5W	6,293	3	0	2	139	6,558	3	0	2	145	6,686	3	0	2	148
				T5LG	6,210	2	0	1	138	6,472	3	0	1	143	6,598	3	0	1	146
				BLC3	4,313	0	0	2	96	4,495	0	0	2	100	4,583	0	0	2	102
				BLC4	4,455	0	0	2	99	4,643	0	0	2	103	4,733	0	0	2	105
				RCCO	4,352	0	0	2	96	4,536	0	0	2	100	4,624	0	0	2	102
				LCCO	4,352	0	0	2	96	4,536	0	0	2	100	4,624	0	0	2	102
				AFR	6,328	1	0	1	140	6,595	1	0	1	146	6,724	1	0	1	149
				T1S	9,006	1	0	2	131	9,386	1	0	2	136	9,569	1	0	2	139
				T2M	8,343	2	0	3	121	8,694	2	0	3	126	8,864	2	0	3	129
				T3M	8,439	2	0	3	122	8,795	2	0	3	128	8,967	2	0	3	130
P3	69W	20	1050	T3LG	7,539	1	0	2	109	7,857	1	0	2	114	8,010	1	0	2	116
				T4M	8,565	2	0	3	124	8,926	2	0	3	129	9,100	2	0	3	132
				T4LG	7,790	1	0	2	113	8,119	1	0	2	118	8,277	1	0	2	120
				TFTM	8,624	1	0	3	125	8,988	1	0	3	130	9,163	2	0	3	133
				T5M	8,812	3	0	2	128	9,184	4	0	2	133	9,363	4	0	2	136
				T5W	8,955	4	0	2	130	9,333	4	0	2	135	9,515	4	0	2	138
				T5LG	8,838	3	0	1	128	9,211	3	0	1	134	9,390	3	0	1	136
				BLC3	6,139	0	0	2	89	6,398	0	0	2	93	6,522	0	0	2	95
				BLC4	6,340	0	0	3	92	6,607	0	0	3	96	6,736	0	0	3	98
				RCCO	6,194	1	0	2	90	6,455	1	0	2	94	6,581	1	0	2	95
				LCCO	6,194	1	0	2	90	6,455	1	0	2	94	6,581	1	0	2	95
				AFR	9,006	1	0	2	131	9,386	1	0	2	136	9,569	1	0	2	139
				T1S	11,396	1	0	2	122	11,877	1	0	2	128	12,109	2	0	2	130
				T2M	10,557	2	0	3	113	11,003	2	0	3	118	11,217	2	0	3	121
				T3M	10,680	2	0	3	115	11,130	2	0	3	120	11,347	2	0	3	122
				T3LG	9,540	1	0	2	103	9,942	1	0	2	107	10,136	1	0	2	109
				T4M	10,839	2	0	3	117	11,296	2	0	3	121	11,516	2	0	3	124
P4	93W	20	1400	T4LG	9,858	1	0	2	106	10,274	1	0	2	110	10,474	1	0	2	113
				TFTM	10,914	2	0	3	117	11,374	2	0	3	122	11,596	2	0	3	125
				T5M	11,152	4	0	2	120	11,622	4	0	2	125	11,849	4	0	2	127
				T5W	11,332	4	0	3	122	11,811	4	0	3	127	12,041	4	0	3	129
				T5LG	11,184	3	0	1	120	11,656	3	0	2	125	11,883	3	0	2	128
				BLC3	7,768	0	0	2	83	8,096	0	0	2	87	8,254	0	0	2	89
				BLC4	8,023	0	0	3	86	8,362	0	0	3	90	8,524	0	0	3	92
				RCCO	7,838	1	0	2	84	8,169	1	0	2	88	8,328	1	0	2	90
				LCCO	7,838	1	0	2	84	8,169	1	0	2	88	8,328	1	0	2	90
				AFR	11,396	1	0	2	122	11,877	1	0	2	128	12,109	2	0	2	130

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K					40K					50K				
					(3000K, 70 CRI)					(4000K, 70 CRI)					(5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P5	90W	40	700	T1S	12,380	2	0	2	137	12,902	2	0	2	143	13,154	2	0	2	146
				T2M	11,468	2	0	3	127	11,952	2	0	3	133	12,185	2	0	3	135
				T3M	11,601	2	0	3	129	12,091	2	0	3	134	12,326	2	0	4	137
				T3LG	10,363	2	0	2	115	10,800	2	0	2	120	11,011	2	0	2	122
				T4M	11,774	2	0	4	131	12,271	2	0	4	136	12,510	2	0	4	139
				T4LG	10,709	1	0	2	119	11,160	2	0	2	124	11,378	2	0	2	126
				TFTM	11,856	2	0	3	132	12,356	2	0	4	137	12,596	2	0	4	140
				T5M	12,114	4	0	2	134	12,625	4	0	2	140	12,871	4	0	2	143
				TSW	12,310	4	0	3	137	12,830	4	0	3	142	13,080	4	0	3	145
				TSLG	12,149	3	0	2	135	12,662	3	0	2	141	12,908	3	0	2	143
				BLC3	8,438	0	0	2	94	8,794	0	0	2	98	8,966	0	0	2	99
				BLC4	8,715	0	0	3	97	9,083	0	0	3	101	9,260	0	0	3	103
				RCCO	8,515	1	0	2	94	8,874	1	0	2	98	9,047	1	0	2	100
				LCCO	8,515	1	0	2	94	8,874	1	0	2	98	9,047	1	0	2	100
				AFR	12,380	2	0	2	137	12,902	2	0	2	143	13,154	2	0	2	146
				T1S	17,545	2	0	3	128	18,285	2	0	3	133	18,642	2	0	3	136
				T2M	16,253	3	0	4	119	16,939	3	0	4	124	17,269	3	0	4	126
P6	137W	40	1050	T3M	16,442	2	0	4	120	17,135	3	0	4	125	17,469	3	0	4	128
				T3LG	14,687	2	0	2	107	15,306	2	0	2	112	15,605	2	0	2	114
				T4M	16,687	2	0	4	122	17,391	3	0	5	127	17,730	3	0	5	129
				T4LG	15,177	2	0	2	111	15,817	2	0	2	115	16,125	2	0	2	118
				TFTM	16,802	2	0	4	123	17,511	2	0	4	128	17,852	2	0	5	130
				T5M	17,168	4	0	2	125	17,893	5	0	3	131	18,241	5	0	3	133
				TSW	17,447	5	0	3	127	18,183	5	0	3	133	18,537	5	0	3	135
				TSLG	17,218	4	0	2	126	17,944	4	0	2	131	18,294	4	0	2	134
				BLC3	11,959	0	0	3	87	12,464	0	0	3	91	12,707	0	0	3	93
				BLC4	12,352	0	0	4	90	12,873	0	0	4	94	13,124	0	0	4	96
				RCCO	12,067	1	0	3	88	12,576	1	0	3	92	12,821	1	0	3	94
				LCCO	12,067	1	0	3	88	12,576	1	0	3	92	12,821	1	0	3	94
				AFR	17,545	2	0	3	128	18,285	2	0	3	133	18,642	2	0	3	136
				T1S	20,806	2	0	3	122	21,683	2	0	3	127	22,106	2	0	3	129
				T2M	19,273	3	0	4	113	20,086	3	0	4	118	20,478	3	0	4	120
				T3M	19,497	3	0	5	114	20,319	3	0	5	119	20,715	3	0	5	121
				T3LG	17,416	2	0	2	102	18,151	2	0	2	106	18,504	2	0	2	108
P7	171W	40	1300	T4M	19,787	3	0	5	116	20,622	3	0	5	121	21,024	3	0	5	123
				T4LG	17,997	2	0	2	105	18,756	2	0	2	110	19,121	2	0	2	112
				TFTM	19,924	3	0	5	117	20,765	3	0	5	122	21,170	3	0	5	124
				T5M	20,359	5	0	3	119	21,217	5	0	3	124	21,631	5	0	3	127
				TSW	20,689	5	0	3	121	21,561	5	0	3	126	21,982	5	0	3	129
				TSLG	20,418	4	0	2	120	21,279	4	0	2	125	21,694	4	0	2	127
				BLC3	14,182	0	0	3	83	14,780	0	0	3	87	15,068	0	0	3	88
				BLC4	14,647	0	0	4	86	15,265	0	0	4	89	15,562	0	0	4	91
				RCCO	14,309	1	0	3	84	14,913	1	0	3	87	15,204	1	0	3	89
				LCCO	14,309	1	0	3	84	14,913	1	0	3	87	15,204	1	0	3	89
				AFR	20,806	2	0	3	122	21,683	2	0	3	127	22,106	2	0	3	129

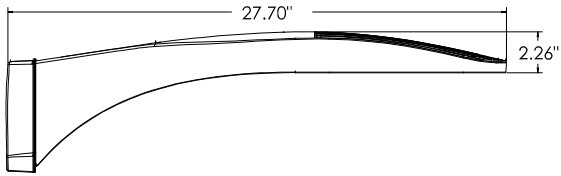
Performance Data

Lumen Output

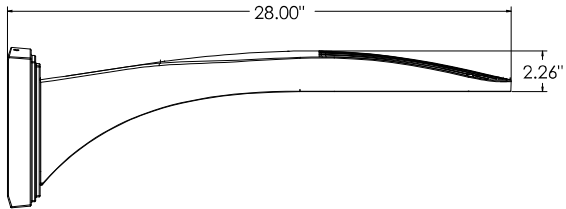
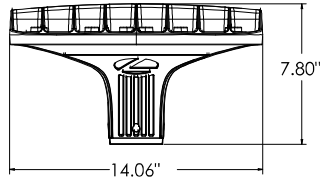
Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

Rotated Optics																			
Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K					40K					50K				
					(3000K, 70 CRI)					(4000K, 70 CRI)					(5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P10	51W	30	530	T1S	7,399	3	0	3	145	7,711	3	0	3	151	7,862	3	0	3	154
				T2M	6,854	3	0	3	135	7,144	3	0	3	140	7,283	3	0	3	143
				T3M	6,933	3	0	3	136	7,225	3	0	3	142	7,366	3	0	3	145
				T3LG	6,194	2	0	2	122	6,455	2	0	2	127	6,581	2	0	2	129
				T4M	7,036	3	0	3	138	7,333	3	0	3	144	7,476	3	0	3	147
				T4LG	6,399	2	0	2	126	6,669	2	0	2	131	6,799	2	0	2	134
				TFTM	7,086	3	0	3	139	7,385	3	0	3	145	7,529	3	0	3	148
				T5M	7,239	3	0	2	142	7,545	3	0	2	148	7,692	3	0	2	151
				T5W	7,357	3	0	2	145	7,667	3	0	2	151	7,816	4	0	2	154
				T5LG	7,260	3	0	1	143	7,567	3	0	1	149	7,714	3	0	1	152
				BLC3	5,043	3	0	3	99	5,256	3	0	3	103	5,358	3	0	3	105
				BLC4	5,208	3	0	3	102	5,428	3	0	3	107	5,534	3	0	3	109
				RCCO	5,089	0	0	2	100	5,303	0	0	2	104	5,407	0	0	2	106
				LCCO	5,089	0	0	2	100	5,303	0	0	2	104	5,407	0	0	2	106
				AFR	7,399	3	0	3	145	7,711	3	0	3	151	7,862	3	0	3	154
P11	68W	30	700	T1S	9,358	3	0	3	138	9,753	3	0	3	143	9,943	3	0	3	146
				T2M	8,669	3	0	3	127	9,034	3	0	3	133	9,211	3	0	3	135
				T3M	8,768	3	0	3	129	9,138	3	0	3	134	9,316	3	0	3	137
				T3LG	7,833	3	0	3	115	8,164	3	0	3	120	8,323	3	0	3	122
				T4M	8,899	3	0	3	131	9,274	3	0	3	136	9,455	3	0	3	139
				T4LG	8,093	3	0	3	119	8,435	3	0	3	124	8,599	3	0	3	126
				TFTM	8,962	3	0	3	132	9,340	3	0	3	137	9,522	3	0	3	140
				T5M	9,156	4	0	2	135	9,542	4	0	2	140	9,728	4	0	2	143
				T5W	9,304	4	0	2	137	9,696	4	0	2	143	9,885	4	0	2	145
				T5LG	9,182	3	0	1	135	9,569	3	0	1	141	9,756	3	0	1	143
				BLC3	6,378	3	0	3	94	6,647	3	0	3	98	6,777	3	0	3	100
				BLC4	6,587	3	0	3	97	6,865	3	0	3	101	6,999	3	0	3	103
				RCCO	6,436	0	0	2	95	6,707	0	0	2	99	6,838	0	0	2	101
				LCCO	6,436	0	0	2	95	6,707	0	0	2	99	6,838	0	0	2	101
				AFR	9,358	3	0	3	138	9,753	3	0	3	143	9,943	3	0	3	146
P12	103W	30	1050	T1S	13,247	3	0	3	128	13,806	3	0	3	134	14,075	3	0	3	136
				T2M	12,271	4	0	4	119	12,789	4	0	4	124	13,038	4	0	4	126
				T3M	12,412	4	0	4	120	12,935	4	0	4	125	13,187	4	0	4	128
				T3LG	11,089	3	0	3	107	11,556	3	0	3	112	11,782	3	0	3	114
				T4M	12,597	4	0	4	122	13,128	4	0	4	127	13,384	4	0	4	129
				T4LG	11,457	3	0	3	111	11,940	3	0	3	116	12,173	3	0	3	118
				TFTM	12,686	4	0	4	123	13,221	4	0	4	128	13,479	4	0	4	130
				T5M	12,960	4	0	2	125	13,507	4	0	2	131	13,770	4	0	2	133
				T5W	13,170	4	0	3	127	13,726	4	0	3	133	13,994	4	0	3	135
				T5LG	12,998	3	0	2	126	13,546	3	0	2	131	13,810	3	0	2	134
				BLC3	9,029	3	0	3	87	9,409	3	0	3	91	9,593	3	0	3	93
				BLC4	9,324	4	0	4	90	9,718	4	0	4	94	9,907	4	0	4	96
				RCCO	9,110	1	0	2	88	9,495	1	0	2	92	9,680	1	0	2	94
				LCCO	9,110	1	0	2	88	9,494	1	0	2	92	9,680	1	0	2	94
				AFR	13,247	3	0	3	128	13,806	3	0	3	134	14,075	3	0	3	136
P13	129W	30	1300	T1S	15,704	3	0	3	122	16,366	3	0	3	127	16,685	4	0	4	130
				T2M	14,547	4	0	4	113	15,161	4	0	4	118	15,457	4	0	4	120
				T3M	14,714	4	0	4	114	15,335	4	0	4	119	15,634	4	0	4	121
				T3LG	13,145	3	0	3	102	13,700	3	0	3	106	13,967	3	0	3	108
				T4M	14,933	4	0	4	116	15,563	4	0	4	121	15,867	4	0	4	123
				T4LG	13,582	3	0	3	105	14,155	3	0	3	110	14,431	3	0	3	112
				TFTM	15,039	4	0	4	117	15,673	4	0	4	122	15,979	4	0	4	124
				T5M	15,364	4	0	2	119	16,013	4	0	2	124	16,325	4	0	2	127
				T5W	15,613	5	0	3	121	16,272	5	0	3	126	16,589	5	0	3	129
				T5LG	15,409	3	0	2	120	16,059	3	0	2	125	16,372	4	0	2	127
				BLC3	10,703	4	0	4	83	11,155	4	0	4	87	11,372	4	0	4	88
				BLC4	11,054	4	0	4	86	11,520	4	0	4	89	11,745	4	0	4	91
				RCCO	10,800	1	0	2	84	11,256	1	0	2	87	11,475	1	0	3	89
				LCCO	10,800	1	0	2	84	11,255	1	0	2	87	11,475	1	0	3	89
				AFR	15,704	3	0	3	122	16,366	3	0	3	127	16,685	4	0	4	130

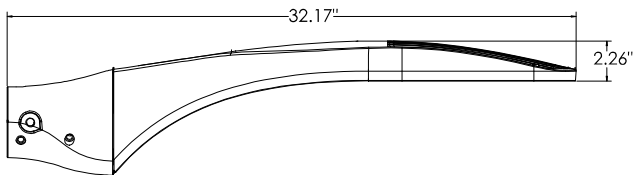
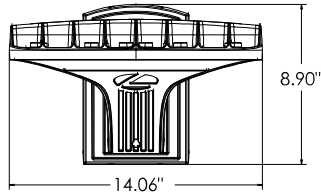
Dimensions



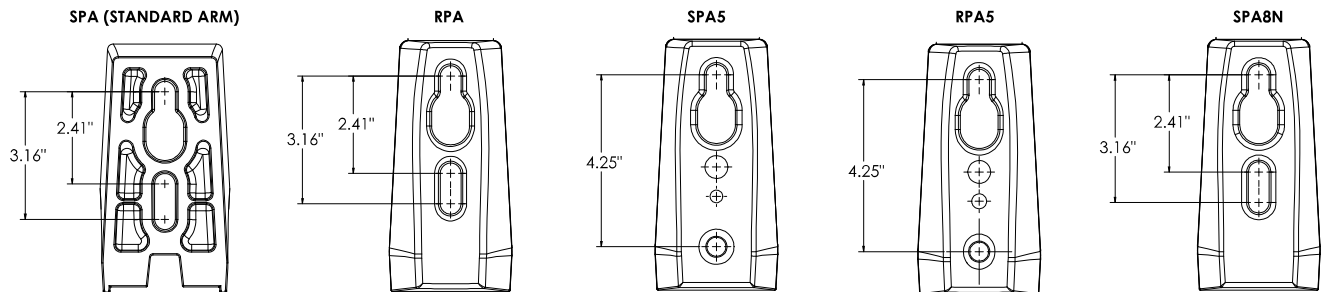
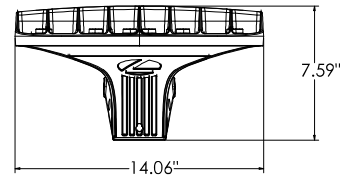
DSX0 with RPA, RPA5, SPA5, SPA8N mount
Weight: 25 lbs



DSX0 with WBA mount
Weight: 27 lb

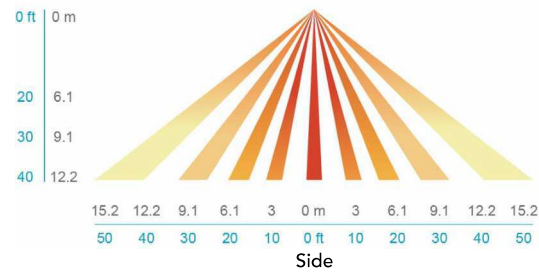
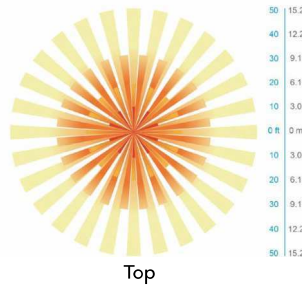
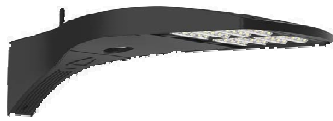


DSX0 with MA mount
Weight: 28 lbs



nLight Sensor Coverage Pattern

NLTAIR2 PIRHN



FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and pedestrian areas.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing driver compartment is completely sealed against moisture and environmental contaminants (IP66). Vibration rated per ANSI C136.31 for 3G. Low EPA (0.44 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

COASTAL CONSTRUCTION (CCE)

Optional corrosion resistant construction is engineered with added corrosion protection in materials and/or pre-treatment of base material under super durable paint. Provides additional corrosion protection for applications near coastal areas. Finish is salt spray tested to over 5,000 hours per ASTM B117 with scribe rating of 10. Additional lead-times may apply.

OPTICS

Precision-molded proprietary silicone lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K or 5000 K (70 CRI) configurations. 80CRI configurations are also available. The D-Series Size 0 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L80/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX0 LED area luminaire has a number of control options. DSX Size 0, comes standard with 0-10V dimming driver. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. PIR integrated motion sensor with on-board photocell feature field-adjustable programming and are suitable for mounting heights up to 40 feet. Control option BL features a bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output.

nLIGHT AIR CONTROLS

The DSX0 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLARITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found [here](#).

INSTALLATION

Integral mounting arm allows for fast mounting using Lithonia standard #8 drilling and accommodates pole drilling's from 2.41 to 3.12" on center. The standard "SPA" option for square poles and the "RPA" option for round poles use the #8 drilling. For #5 pole drillings, use SPA5 or RPA5. Additional mountings are available including a wall bracket (WBA) and mast arm (MA) option that allows luminaire attachment to a 2 3/8" horizontal mast arm.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP66 rated. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

GOVERNMENT PROCUREMENT

BAA – Buy America(n) Act: Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.

BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



COMMERCIAL OUTDOOR

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DSX0-LED
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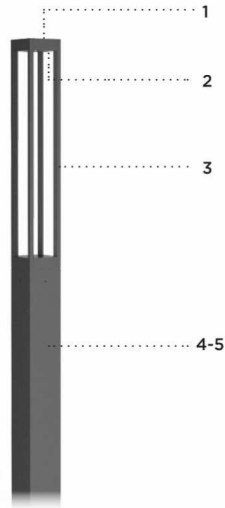
PROJECT: SARA SHERIDAN

TYPE:
XF1 XF1A

TYPE: _____ QUANTITY: _____ PROJECT: _____

CATALOG NUMBER:

FIXTURE SUFFIX VOLTAGE FINISH OPTION OPTION OPTION OPTION



- 1- Cast aluminum top cover.
- 2- Optical system assembly.
- 3- 4x extruded aluminum struts.
- 4- Cast aluminum driver housing.
- 5- 4" (102mm) x 4" (102mm) extruded aluminum square body.

LQ421



MATERIALS

Lumiquad column is made of 6061-T6 extruded aluminum alloy. All other parts are made of corrosion resistant 356 aluminum alloy with a copper (CU) content of less than 0.1%.

ELECTRICAL

DRIVER Standard driver is 0-10V dimming-ready (dims to 10%) with: 120-277 multi-volt compatibility (50-60Hz), operating temperatures of -40°C/-40°F to 55°C/131°F, output over voltage protection, output over current protection, output short circuit protection with auto-recovery.

LED 3000K/3500K/4000K CCT with 80 CRI.
Optional true amber LED for turtle sensitive areas.
Wavelengths: 585nm to 597nm.

LIFE

60,000hrs $L_{70B_{50}}$ (based on IESNA TM-21 Test Method and LM-80 data).
Up to 70,000hrs $L_{70B_{50}}$ (calculated projection from LM-80 data).

FINISH

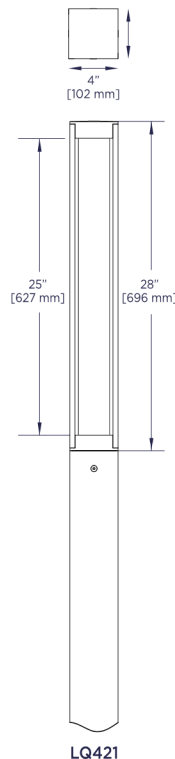
Five-stage preparation process includes preheating of cast aluminum parts for air extraction. Polyester powder coating is applied through an electrostatic process, and oven cured for long term finish.

CERTIFICATION

Certified and Approved as per CSA C22.2 No.: 250.0 standard and ANSI/UL 1598 standard, for wet location. Rated IP65.
Photometric testing performed by an independent laboratory in accordance with IES LM-79-08 standards at 25°C. Lumen depreciation in accordance with IESNA LM80 standards.

MOUNTING

Lumiquad column is designed for ease of access and installation. The cast aluminum base plate is secured with a set of (4) 1/2"-13 x 18" lg. galvanized anchor bolts.

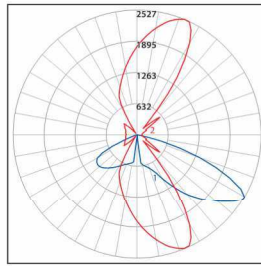


LQ421

LQ421 SERIES

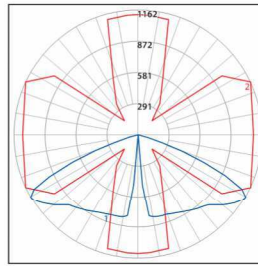
Lumiquad

TYPICAL PHOTOMETRY SUMMARY



Descriptive Information

LQ421-L1L30-R2
Total Lms: 3100 Lumens
Total Input Watts: 37,4 W
Efficacy: 82,8 Lumens/Watt
BUG: B1-U0-G1
CCT/CRI: 4000K/80
Maximum Candela: 2458 @ 55°H/29°V



Descriptive Information

LQ421-L1L30-R5
Total Lms: 3034 Lumens
Total Input Watts: 50,9 W
Efficacy: 59,6 Lumens/Watt
BUG: B1-U0-G1
CCT/CRI: 4000K/80
Maximum Candela: 1134 @ 19,5°H/55°V

LUMINAIRE SELECTION

Please visit our web site www.luminis.com for complete I.E.S. formatted download data.

<

OPTIONS

ELECTRICAL

- ☐ FS Fuse
- ☐ SP Surge protector 10KV
- ☐ PH Photocell

ACCESSORIES

- ☐ GFI Ground fault circuit interruption flush receptacle²
- ☐ CGF Ground fault circuit interruption with clear in-use cover²
- ☐ BLC1 Blockout shield (one side)³
- ☐ BLC2 Blockout shield (two sides, installed at 90°)⁴
- ☐ BLC3 Blockout shield (three sides)⁴
- ☐ LVR Glare control louvers provided with a 90° lens⁵
- ☐ MSD Motion sensor device (high/low 25%)
255° coverage
Installed at 180° from hand hole
120/277VAC, 50/60Hz (or 230VAC, 50Hz)

LIGHT

- Alternate CCT LED (LCF: Lumen conversion factor)
 - ☐ K27 2700K CCT 80 CRI (LCF: 0.91)
 - ☐ K3 3000K CCT 80 CRI (LCF: 0.94)
 - ☐ K35 3500K CCT 80 CRI (LCF: 0.98)
 - ☐ K4 4000K CCT 80 CRI (LCF: 1.00)
- NOTE: Other CCT & higher CRI available, please consult factory.

CONTROL

- ☐ NLTAIR2 nLight AIR Control gen2, Pole mounted black sensor.^{6, 7, 8}

FAUX WOOD COLORS*

- ☐ ADG American douglas
- ☐ BRC Birch
- ☐ CHN Chestnut
- ☐ CRY Cherry
- ☐ KNP Knotty pine
- ☐ MPL Maple
- ☐ OFL Oak
- ☐ RSW Rosewood
- ☐ TEK Teak
- ☐ WLN Walnut

NOTES

- 1- If no voltage is specified, luminaires are factory prewired by default for 120V. For other voltages, please specify with catalog number, or consult factory.
- 2- 120V required for GFI or CGF.
- 3- BLC1 installed on back side when distribution Type II is selected.
- 4- BLC2 and BLC3 not available with distribution type II.
- 5- LVR cannot be combined with Blockout shield option.
- 6- Not compatible with PH, MSD.
- 7- Compatible with Amber Led.
- 8- White sensor available upon request.
- 9- Faux wood finish not applied to the fixture head, base cover or accessories.

LUMINIS

LUMINIS | Toll free: 866.586.4647 Fax: 514.683.8872 Email: info@luminis.com
260 Labrosse, Pointe-Claire (QC) Canada H9R 5L5

Luminaires may be altered for design improvement without prior notice.



For IDA certification compliance, luminaire must be ordered with 3000K or warmer.

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Rev. 8
April 2023

| 2



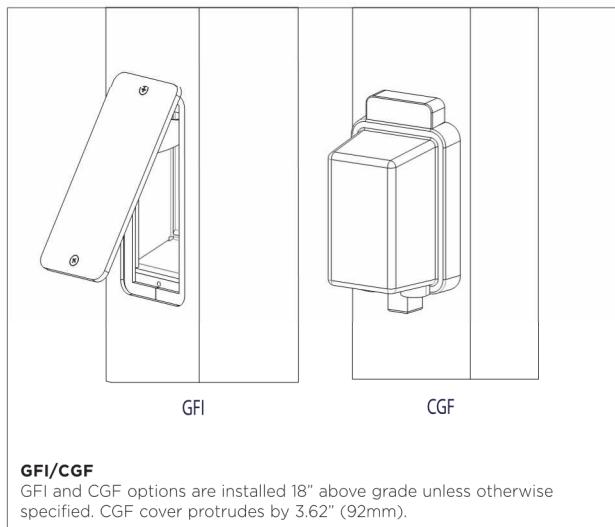
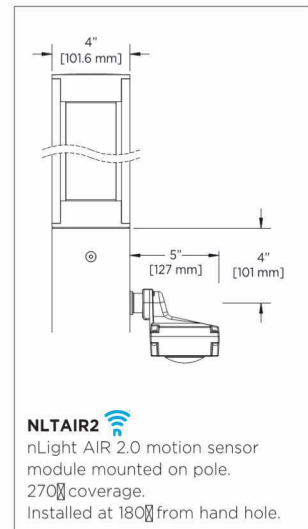
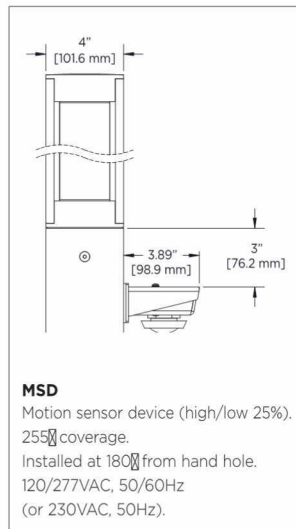
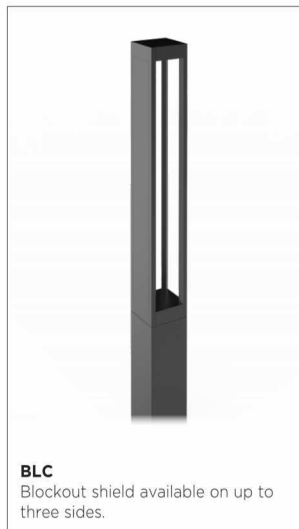
PROJECT: SARA SHERIDAN

TYPE:
XF2

APPENDIX: LIGHTING FIXTURE CUTSHEET PACKAGE

OPTIONS

ACCESSORIES



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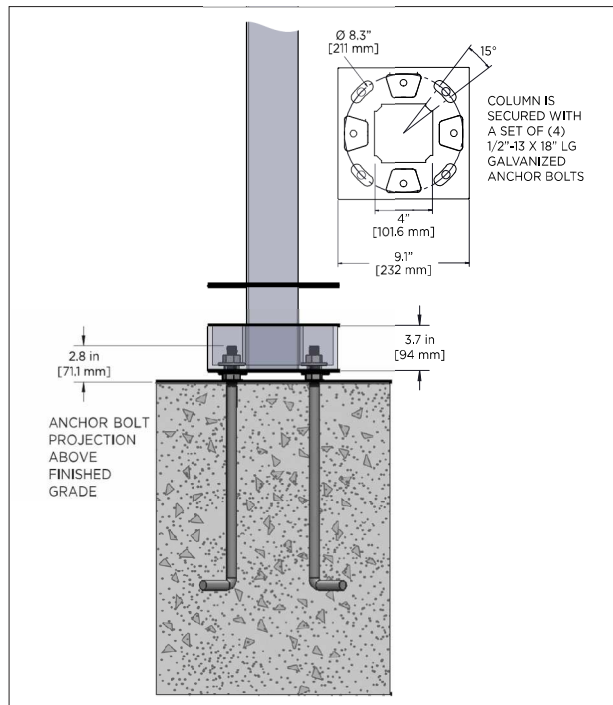
Luminaires may be altered for design improvement without prior notice.

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| 3

MOUNTING INFORMATION



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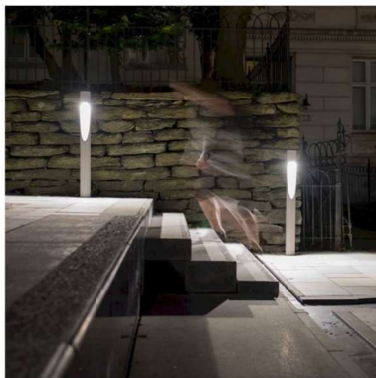
FLINDT BOLLARD

The light distribution is directed downward on one side of the bollard. The flared aperture creates an organic shaped light pattern covering nearly 180°. Two COB LEDs are housed in the top of the fixture and are shielded from direct view for glare control. The fixture can be horizontally rotated 20° and locked after the base plate is installed for optimal positioning.



Christian Flindt

Christian Flindt (1972-) graduated with an MAA and MDD from Aarhus School of Architecture in 2002. He then started his own design company in 2003. Here, he placed high emphasis on communication between people, and his focus on this area finds expression in his approach to re-evaluating furniture.



Johanneskirke-trappen



Strandengen, Søndre Havn - Køge Kyst

louis poulsen

Design to Shape Light

louispoulsen.com

Product info

Environmental Product Specification

This product is compliant with the requirements contained in the European Directives, RoHS Directive 2011/65 and 2015/863. This product is designed so that 100% of the product can be disassembled and reused.

Information

Electrical: System Wattage: 15W LED Wattage: 14W Delivered lumens: 536-591 lm Efficacy: 35.7-39.4 lm/W
Certifications: cULus, Wet Location Protection class IP65 IK class 10 BUG Rating: B0-U2-G1 Controllability: 0-10V Dimming Min.-Max. Ambient Temp: -40°C to +70°C Color Rendering: Ra≥80

Mounting

Base plate dimension: 11" diameter. Base plate: Mounted to a concrete base with 4 anchor bolts on a bolt circle of 8.9" diameter. Internal anchor base: Mounted to a concrete base with 3 anchor bolts on a bolt circle of 3.5". Direct burial: includes cross-bar for stabilization and slots for conduit entry. Installation: Refer to mounting instruction download for installation details.

Finish

Aluminium, Corten, or Black colored. Textured surface, powder coated.

Materials

Top: Cast aluminum. Post: Extruded aluminum. Base plate: Die cast aluminum. Lens: Clear polycarbonate. Anchor bolts: Zinc-plated steel.

Sizes and weight

Width x Height x Length (in.) | 4.5 x 31.5 x 4.5 Max 15.7 lbs | 4.5 x 43.3 x 4.5 Max 23.0 lbs

Compliance

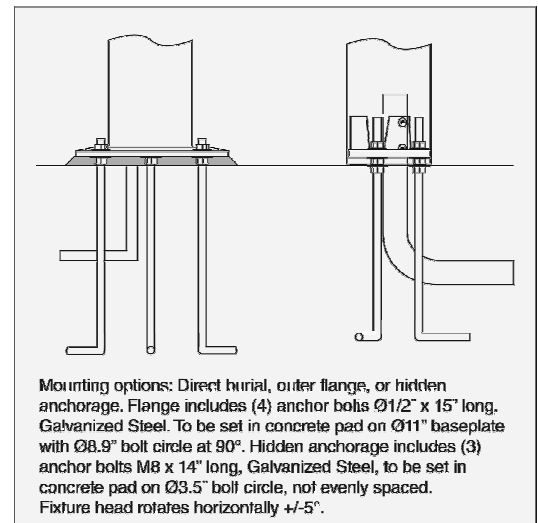
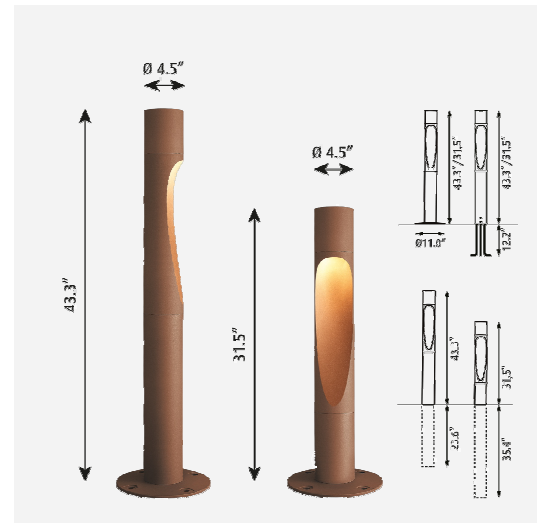
cULus, Wet location.

Light source

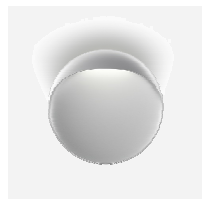
LED 3000K 15W
Lumen: 707

Information

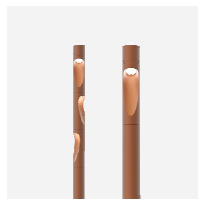
Electrical:
System Wattage: 15W
LED Wattage: 14W
Delivered lumens: 536-591 lm
Efficacy: 35.7-39.4 lm/W
Certifications:
cULus, Wet Location
Protection class IP65
IK class 10
BUG Rating: B0-U2-G1
Controllability: 0-10V Dimming
Min.-Max. Ambient Temp: -40°C to +70°C
Color Rendering: Ra≥80



Related products



Flindt Wall



Flindt Plaza





Flindt Garden Bollard

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louispuolsen.com

Product variants

Dimension	Color	Mounting	Light source	Lumen	Voltage frequency
31.5 IN	 Corten color	Post w/anchorage unit	LED 3000K 15W	707	120-277V/60HZ
43.3 IN	 Natural paint aluminum	Post w/base plate	LED 4000K 15W	757	
		Post w/direct burial		762	
				784	

APPENDIX: LIGHTING FIXTURE CUTSHEET PACKAGE

Product description

Beautifully crafted slender post with a carved surface that is gently illuminated. Top section conceals downward facing LEDs that are positioned for wide distribution. Two horizontal connection lines underline the three parts of the bollard. A facet increases the visibility of the connection lines. Available in two heights, 43.3 IN and 31.5 IN. Available in three different mounting methods: with an 11 inch base plate and visible anchor bolts, with internally hidden anchor bolts, or direct burial in soil or gravel. Part of a family.

Mounting

Top section housing holds driver and LED's connected with quick-disconnect plug for easy servicing. Terminal block is located in the reflector section. Thru wiring approved. Supplied with IP68 (water-tight) glands to seal mid-section for pass thru wiring. Mounted to a concrete base with (4) anchor bolts on a bolt circle of 8.9 inches.

Light description

The luminaire provides a non-glaring wide characteristic asymmetrical and functional illumination. The design of the cut-out creates a reflector part which is gradually illuminated to emphasize the depth in the luminaire. The cut-out reflector and precise location of the LED's provides an wing-shaped light pattern on the ground. A white highly reflective material around the LED's ensure a wide distribution of light and high efficacy. The cut-out reflector part can be adjusted $\pm 10^\circ$ after installation to fine tune alignment of several luminaires and light distribution. Standard CCT in 3000K or 4000K, controlled by electronic dimmable driver.

Design

Christian Flindt

Material

Top and reflector part: Cast aluminum. Post: Extruded aluminum 0, 14" thick. Diffuser: Injection molded U. V. stabilized clear polycarbonate. Internal structure bolts: Galvanized steel 0, 23" thick. Internal rotational plate: Cast aluminum 0, 23" thick. Anchor bolts: Hot-dipped galvanized steel anchor bolts 1/2" dia. X15". Standard finish are matte, textured surface powder coat with minimum 2 mils thickness in corten color or natural painted aluminum.

Weight

Min: 0 lbs Max: 23.018 lbs

Dimensions

31,5 IN, 43,3 IN

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Other functions

Alternative mounting options include an 11" base plate, a hidden anchor base or for direct burial. LED in 2700K or 3500K. Amber LED available for sea turtle nesting areas. Custom finishes. Custom pole heights. Alternative dimming controls, including wireless systems.

Finish

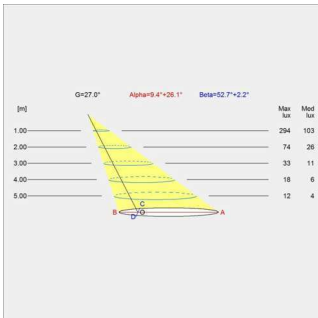
Corten color, Natural paint aluminum

Voltage

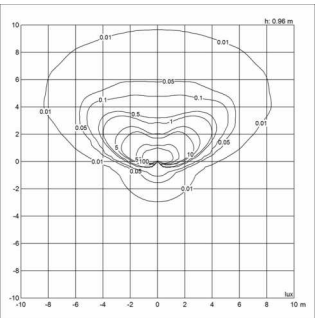
120-277V/60HZ

Light distribution diagrams

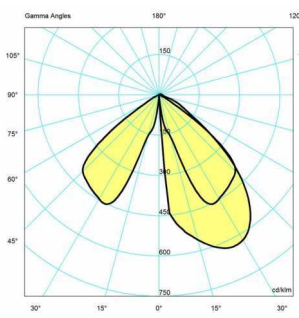
Cartesian



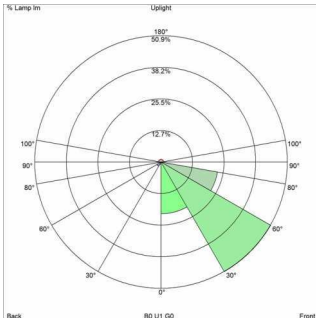
Isolux



Polar



Bug



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Specifications

Weight:	0.9 lbs
H:	4.57" (116mm) w/C1
	5.25" (134mm) w/C2
	6.61" (168mm) w/C3

CEDAR LED

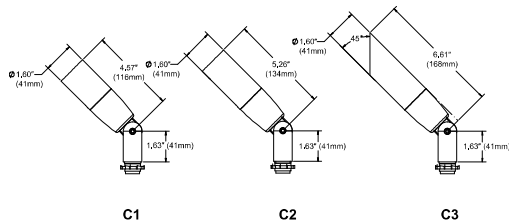
12V LED

HIGHLIGHTS

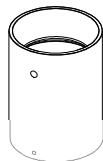
- Accent lights are suitable for a variety of mounting applications including ground, wall, tree, sign and architectural accents
- Suitable for wet locations
- Available in 80CRI and 90CRI
- Dimmable using standard MLV dimmer and magnetic transformer
- Taper-sure lock
- 360lm



DIMENSIONS



C1
SHORT
FLUSH



C2
LENS
RECESSED



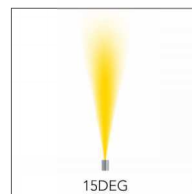
C3
45°
CUTOFF

LUMEN PACKAGES

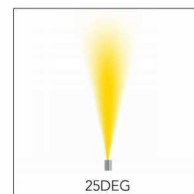
	15DEG	25DEG	40DEG
Delivered Lumens	362	318	253
Watts	4.5	4.5	4.5
LPW	80	71	56
Peak Candela	1,439	988	530

Note: Information based on 4000K 80CRI with C1 cap and FLC lens

STANDARD DISTRIBUTION



15DEG

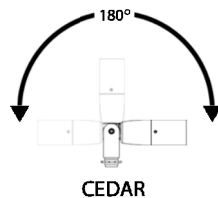


25DEG



40DEG

AIMING DETAILS



CEDAR

ORDERING INFORMATION

EXAMPLE: CEDAR A P1 90CRI 30K 12 15DEG KM FLC C2 BKS

CEDAR										
Series*	Material*	Performance Packages*	CRI*	Color Temperature*	Voltage*	Distribution*	Mounting*	Lens*		
CEDAR	A Aluminum BR Brass	P1	80CRI 90CRI	27K 30K 35K 40K 50K <small>Note: 35k and 50K only available with 80CRI</small>	12 ¹	15DEG 15° 25DEG 25° 40DEG 40°	KM Knuckle 350R 350° rotational knuckle	FLC Flat Clear WSL Watershed		

Mounting Accessories Optional

Independent Mounting

JBA	Aluminum J-Box
JBB	Bronze J-Box Architectural
ARJB	J-Box, Aluminum
CN4	Rectangular canopy
CN4BR	4" rectangular canopy, brass
CN5	Round 5" canopy
CN5BR	5" round canopy, brass
WMC	Wall Mount Cover
WMSA	Wall Mount with Splice Access
STK	Mounting Stake
TRA	Tree Mounted J-Box, Aluminum
TRB	Tree Mounted J-Box, Bronze

Independent Mounting

_TRAS	Tree Mounted J-Box with Aluminum mounting strap, available with 1-4 JBoxes per strap
_TRBS	Tree Mounted J-Box with Bronze mounting strap, available with 1-4 JBoxes per strap
PM60A	Adjustable Post Mount
PMBR60A	Adjustable Post Mount - Brass
PM60C	Post Mount with Conduit
PMBR60C	Post Mount with Conduit - Brass
PM60D	Post Mount with Open Bottom
PMBR60D	Post Mount with Open Bottom - Brass

Note: Multi Head (AMHM) mounting accessory is available and can be ordered separately, please see below and spec sheet for options. Consult factory if you require the AMHM to be used with any independent mounting accessories

Note: Aluminum or Bronze Stake Mounted J-Box (SBA_ or SBB_) is available in 12" or 18" and can be ordered separately, please see below and spec sheet for options.

Stems

S3 ²	3" Stem
S6 ²	6" Stem
S__ ²	12" - 24" stems, available in 6" increments
S3BR ³	3" Stem Brass
S6BR ³	6" Stem Brass
S__BR ³	12" - 24" stems, available in 6" increments

Extension Arms⁴

EA_	12", 24" or 36"
EA45_	45° - 12", 24" or 36"
EA90_	90° - 12", 24" or 36"

Options⁵ Optional

Internal Louver

IHL	Honeycomb Louver
-----	------------------

Internal Accessory

L1	Prismatic Lens
L2	Linear Spread Lens
L3	Softening Lens

Internal Filters

FA	Amber
FG	Green
FGD	Green Dichroic
FLB	Light Blue
FM	Mercury Vapor
FMB	Medium Blue
FMBD	Medium Blue Dichroic
FR	Red
FRD	Red Dichroic

External Caps*

C1	Short Flush
C2	Recessed Lens
C3	45° Angle Cut

Finish*

All Material

BL	Black Textured
BRS	Bronze Smooth
BRT	Bronze Textured
DBL	Black Smooth
DDB	Designer Bronze

DNA	Natural Aluminum
NBS ⁶	Natural Bronze Smooth
STG	Steel Gray
VET	Verde Textured
WH	White Textured
WHS	White Smooth
CF	Custom Finish
RALTB	RAL Paint Finishes
_Z ⁷	Zinc Undercoat (i.e. BLZ)

Note: RALTB for pricing only, replace with applicable RAL call out when ready to order. See the RALBROCHURE for available options. It is recommended that Hydrel products only use textured paint.

Note: Zinc Undercoat provides corrosion protection for Marine Environment and Natatorium Construction

Brass Only

BRZ	Satin Bronze w/ Satin Clear
NAT	Natural Brass w/ Satin Clear
POL	Polished Brass w/ Gloss Clear

*Required Fields

Notes:

- Remote transformer required. Options for [remote transformers](#).
- Aluminum stems only compatible with PM60A, PM60C and PM60D.
- Brass stems only compatible with PMBR60A, PMBR60C and PMBR60D.
- Extended arms compatible with WMC and WMSA.
- Only one option can be specified.
- NBS paint uses specialty pigments to give a natural appearance that may vary by fixture.

PERFORMANCE DATA

LUMEN OUTPUT

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Distribution Type	Field Angle		Beam Angle		27K (2700K, 80CRI)			30K (3000K, 80CRI)			35K (3500K, 80CRI)			40K (4000K, 80CRI)			50K (5000K, 80CRI)		
			°H	°V	°H	°V	Max CD	Lumens	LPW	Max CD	Lumens	LPW	Max CD	Lumens	LPW	Max CD	Lumens	LPW	Max CD	Lumens	LPW
P1	4.5	15DEG	49	49	27	27	1,353	340	76	1,415	356	79	1,425	358	80	1,439	362	80	1,410	354	79
		25DEG	55	55	31	31	929	299	66	972	312	69	978	314	70	988	318	71	968	311	69
		40DEG	65	65	40	40	498	238	53	521	249	55	524	250	56	530	253	56	519	248	55

CRI SCALING	Multiplier
90CRI	0.77

LED LIFE: L70@> 60,000 hours

OPERATING TEMPERATURE: -20°C through 55°C

EXTERNAL CAP	Multiplier
C2	0.70
C3	0.965

PHOTOMETRIC DIAGRAMS

To see complete photometric reports or download .ies files for this product, visit www.hydreI.com

FEATURES & SPECIFICATIONS

MATERIAL: Body and cap cast from 356-T6 Aluminum, knuckle machined from 6061-T6 Aluminum. BR - machined from 360 brass.

LIGHT SOURCE: Proprietary high output LEDs. Units have near constant light output when supplied with 11VAC-14VAC to combat voltage drop. All within 3 MacAdam ellipses

VOLTAGE: 12 Volt AC

DISTRIBUTION: Available 15DEG, 25DEG, 40DEG.

LENS: FLC - Cut from heat strengthened borosilicate glass for superior clarity and strength. WSL- Molded heat strengthened borosilicate glass for superior clarity and strength, where the glass and the top of the door are flush to allow water to shed off the fixture.

MOUNTING: Knuckle is 1/2" NPSM, mounts to 7/8" thru hole. KM option allows to tilt the fixture up to 180°. 350R option allows to tilt the fixture up to 180° and rotate up to 350°.

POWER SUPPLY: 12VAC. 12VAC dimmable using a remote magnetic transformer.

FINISH: Super durable Polyester TGIC powder coat finish or 3 brass finishes available.

FEATURES: Tapered "Sure Lock" knuckle seat for infinite aiming and an unparalleled locking ability.

LISTING: cCSAus, Wet Location. Laboratory tests conducted by CSA to UL Standards UL-1598, UL-8750 and UL-1838. IP66 Rated.

GOVERNMENT PROCUREMENT

BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY: 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Consult factory for details

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

STANDARD ARCHITECTURAL COLORS

All Material Finishes



RAL Paint Finishes are also available. See the [RALBROCHURE](#) for available options. It is recommended that Hydrel products only use textured paint

Aluminum fixture surfaces are "four step pretreated" prior to being painted with a long lasting TGIC polyester powder coat.

Custom finishes are available. Textures of custom finishes are dependent on the finish material specified. Please consult factory.

Note: These colors were scanned from color chip samples. Some colors, however, may vary slightly from actual appearance due to printing variations and limitations. Please contact factory for color chip samples.

Brass Material Finishes



REMOTE TRANSFORMERS

Transformers may be loaded to 100% capacity, however the recommended load range for optimal efficiency is 40-80%.

Non-Isolated Transformers: Suitable for use with landscape type lighting

Isolated Transformers: Suitable for use with underwater and landscape type lighting



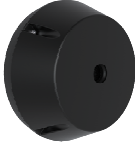
		Part #
	<ul style="list-style-type: none"> 10 and 20 watts, 120V to 12VAC or 277V to 12VAC magnetic Must be mounted in a listed weatherproof enclosure Dimmable by using a magnetic low voltage dimmer switch Non-Isolated Suitable for LED 	Examples: TM10 120 TM10 277 TM20 120 TM20 277 See spec sheet for more options
	<ul style="list-style-type: none"> 300 watts, 120V to 12VAC magnetic Rated for outdoor surface mount, minimum of 12" above finished grade with the wire connection terminals facing down Multi-tap secondary output allowing 12-15 Volt Internal on/off switch-circuit breaker Five "knock-outs" in the bottom cover plate (two 1/2", two 3/4" and one 1-1/2") Dimmable by using a magnetic low voltage dimmer switch Non-Isolated Suitable for LED 	Example: TM300 120 See spec sheet for more options
	<ul style="list-style-type: none"> 15 watts, 120V to 12VAC electronic Maximum remote distance is 10' Non-Isolated Suitable for LED 	Example: TE15 120 See spec sheet for more options
	<ul style="list-style-type: none"> 60 and 75 watts, 120V to 12VAC electronic Maximum remote distance is 10' Non-Isolated Suitable for LED 	Examples: TE60 120 TE75 120 See spec sheet for more options
	<ul style="list-style-type: none"> 150 watts, 120V or 277V primary to 12VAC secondary magnetic. Rated for outdoor surface mount, minimum of 12" above finished grade with wire connection terminals facing down Dimmable by using a magnetic low voltage dimmer switch Non-Isolated Suitable for LED 	Example: TM150 120 TM150 277 See spec sheet for more options

REMOTE TRANSFORMERS








Transformers may be loaded to 100% capacity, however the recommended load range for optimal efficiency is 40-80%.

Non-Isolated Transformers: Suitable for use with landscape type lighting

Isolated Transformers: Suitable for use with underwater and landscape type lighting

		Part #
	<ul style="list-style-type: none"> • Stepdown transformers are two winding isolated type • Two separate wiring compartments isolate primary and secondary leads • Housed in weatherproof enclosure • Meets requirements of article 680 N.E.C. Listed by U.L • 100 watt 120/12,13,14 ac (T1901) • 300 watt 120/12,13,14 ac (T1903) • Dimmable by using magnetic low voltage dimmer switch • Isolated - can be used near underwater application • Suitable for LED 	<p>Examples: T1901 (100watts) T1903 (300watts) See spec sheet for more options</p>
	<ul style="list-style-type: none"> • Ground power post mount • 15 watts, 120V to 12V AC, electronic • Non-Isolated, suitable for LED • Non-Dimmable • Stem length available from 3" to 36" 	<p>Examples: PM60B ET15 120 S3 BL PMBR60B ET15 120 S6 POL See spec sheet for more options</p>
	<ul style="list-style-type: none"> • Wall mount power box • 15 watts, 120V to 12V AC, electronic • 20 watts, 120V to 12V AC, magnetic • ET15 - Electronic is non-dimmable • M20 - Magnetic is dimmable using low voltage magnetic dimmer switch • Non-isolated, suitable for LED 	<p>Examples: WP2J ET15 120 12C BL WP2S M50 120 34C BRS See spec sheet for more options</p>


ACCENT MOUNTING ACCESSORIES

		Part #
	<ul style="list-style-type: none"> AMHM Architectural Multi Head Mount Directional multi-head mounting accessory for spot lighting multiple targets from one vantage point Equipped with inner cavity that allows for quick wire connections Infinite maneuverability and positioning with taper lock technology so contractors can easily set it and forget it Available in Knuckle or Yoke mount Mount two, three or four fixtures Multi Head mount is compatible with other mounting accessories such as ADPMR/ADPMS, AMPC, APAR/APAS, AWSC, CAJB, CPM, CPMSA, CSM and CWMAE/CWMAT 	Example: AMHM2 KM 78C BL See spec sheet for more options
	<ul style="list-style-type: none"> JBA/JBB Junction box for direct fixture mounting Available in cast bronze or aluminum Used where splicing is required for single or multiple fixtures Drilled and tapped to specified requirements May be Ground or wall mounted 	Examples: JBA 34E 34F 78G BL JBB 12A 12C 78G See spec sheet for more options
	<ul style="list-style-type: none"> ARJB Architectural Junction Box Available in cast aluminum For direct mounting of a single lighting fixture Designed for architectural and landscape application Recommended for mounting on a rigid metallic conduit 	Example: ARJB 12B 78C BL See spec sheet for more options
	<ul style="list-style-type: none"> CN4 wall plate canopy Available in aluminum or brass Shape rectangular to mount over a standard switch box Thru hole sized for standard 1/2 pipe thread Fixtures secured via locking nut (for thru hole) or threaded knuckle 	Example: CN4 78C BL See spec sheet for more options
	<ul style="list-style-type: none"> CN5 wall mount canopy Available in Aluminum, Brass or stainless steel Shape round to mount over a standard 4" round or octagonal box. Thru hole sized for standard 1/2 pipe thread Fixture secured via locking nut (for thru hole) or threaded knuckle 	Example: CN5 78C BL See spec sheet for more options
	<ul style="list-style-type: none"> WMC wall mount cover Available in cast aluminum Wall mount cover or mounting fixture over wall box (by others) 	Examples: WMC 78C BL See spec sheet for more options
	<ul style="list-style-type: none"> WMSA wall mount splice access Available in cast aluminum Wall mount with splice access plate for mounting a variety of fixtures Integral splice access compartment for easy fixture connections To be mounted over a recessed wall box 	Example: WMSA 78C BL See spec sheet for more options

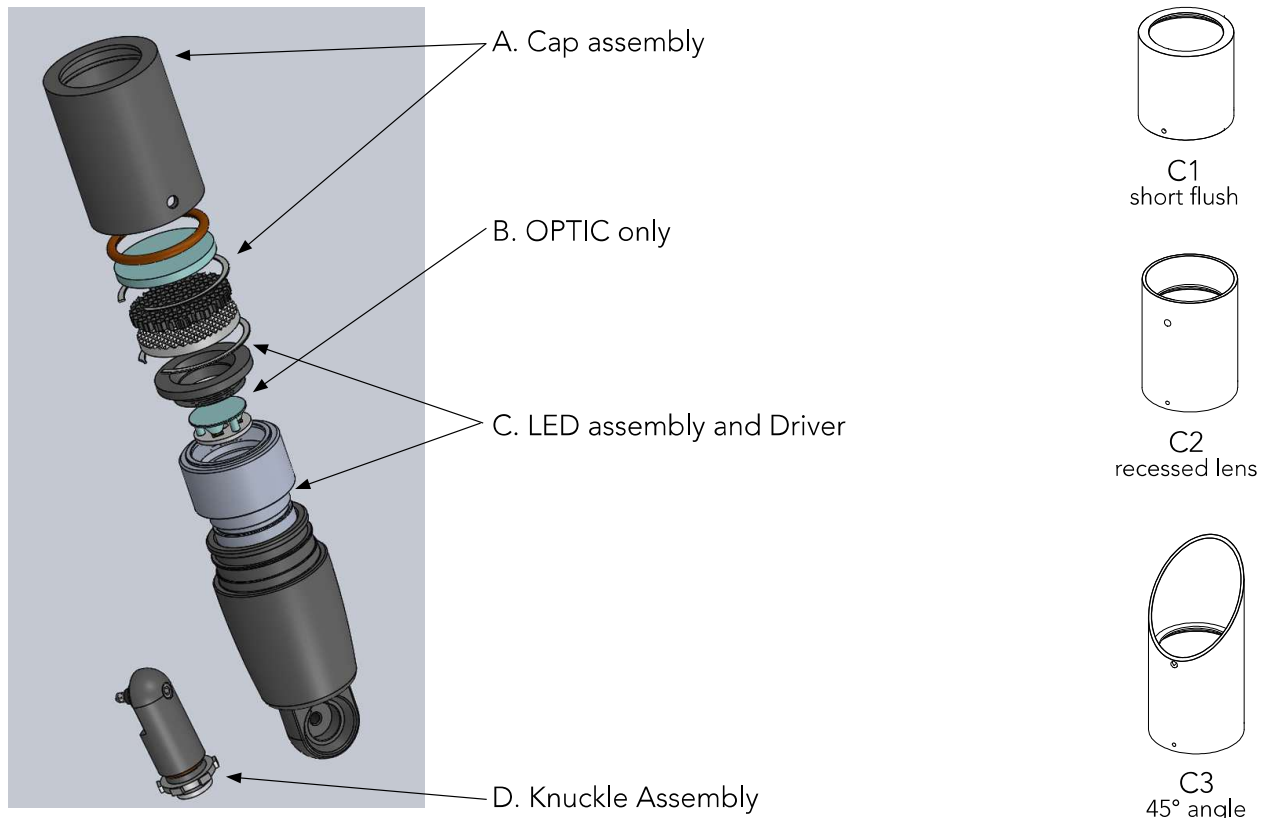
ACCENT MOUNTING ACCESSORIES

		Part #
	<ul style="list-style-type: none"> TRA/TRB tree mount junction box Available in cast aluminum or bronze Includes a splice box with a mounting plate Placement of small accent fixtures around or on a structure, like a tree 	Examples: TRA 12B 78C BL TRB 12B 78C See spec sheet for more options
	<ul style="list-style-type: none"> TRAS/TRBS tree mount junction box with strap. Available in cast aluminum or bronze Includes one or more splice boxes with a polypropylene strap Placement of small accent fixtures around the trunk or branch of a tree 	Examples: 2TRAS 12B 78C DDB 1TRBS 12B 78C See spec sheet for more options
	<ul style="list-style-type: none"> STK ground mounting stake Low voltage portable installations only UV Stable plastic 	Example: STK See spec sheet for more options
	<ul style="list-style-type: none"> Post Mounts PM60A, PM60C and PM60D Ground Mounting posts Available in aluminum or brass Suitable for fixtures with 1/2" knuckles Fixtures are secured with a locking nut PM60A and PM60D are used only with low volt fixtures PM60C can be used with low or line voltage fixtures Optional stems are offered in lengths from 3" to 36" 	Examples: PM60A S3 BL PM60C S12BR BRS PM60D BL See spec sheet for more options
	<ul style="list-style-type: none"> EA-Extended Arms Available in lengths 12", 24" and 36" Available in angles 45° and 90° Material available in aluminum Extended arms are compatible with WMC and WMSA wall mounts 	Examples: WMC EA12 12C BL WMSA EA4512 12C BRS
	<ul style="list-style-type: none"> Tree Ring TRAR 2FX, TRAR 3FX, TRAR 4XF, TRAR 5FX, TRAR 6FX Stainless Steel Ring and Hardware Can accommodate trees between 10" to 15" in diameter Available in 2, 3, 4, 5 and 6 fixture configurations 	Examples: TRAR 5FX 12S 12C BL TRAR 3FX 12S 12C BRS Note: TRAR is sold separately. See spec sheets for options

ACCENT MOUNTING ACCESSORIES

		Part #
	<ul style="list-style-type: none"> SBA or SBB Stake mounted J-box Available in aluminum or bronze material Available in 12" and 18" Used for a portable convenient placement of accent fixtures to accommodate 12v or 120v 1/2" knuckle fixture 	<p>Examples: SBA12 78C CSL10 BL SBB 78C CSL20 BZ See spec sheet for more options</p>




CEDAR SPARE PARTS LIST



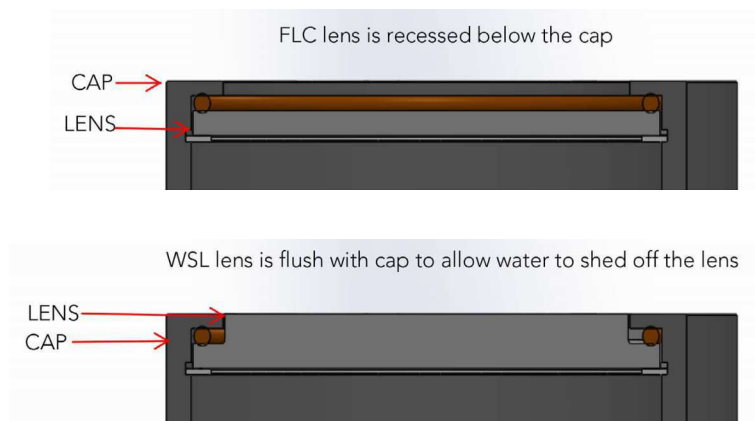
Part Number	Description
A. Cap Assembly CAPACEDAR C1 XX'XXX'XXX' CAPACEDAR C2 XX'XXX'XXX' CAPACEDAR C3 XX'XXX'XXX' 1. Available material finishes: A, BR 2. Available lens: FLC, WSL 3. Add paint finish	Cap Assembly will include the cap, lens and o-ring
B. OPTIC only OPTCEDAR XX' 1. Available distributions: 15DEG, 25DEG, 40DEG	One piece snap on optic only
C. LED Assembly+ Driver module LEDACEDAR XX'XXX'XXX'XXX'XXX' 1. Available Performance Packages: P1 2. Available CRI: 80CRI, 90CRI 3. Available colors: 27K, 30K, 35K,40K, 50K 4. Available voltage: T2 5. Available distributions: 15DEG, 25DEG, 40DEG	Includes LED array, optics, encapsulated driver
D. KACEDAR XX'XXX'XXX' 1. Available material finishes: A, BR 2. Available knuckle: KM, 350R 3. Add paint finish	Knuckle Assembly

CEDAR INTERNAL ACCESSORIES

Internal Accessories can be ordered separate and are field replaceable

	INTERNAL HONEYCOMB LOUVER <ul style="list-style-type: none"> Hexagonal cell louver with 45° cut-off includes retaining ring 	<p>Example: IHLCEDAR</p>
	INTERNAL ACCESSORY LENSES <ul style="list-style-type: none"> L1 Prismatic Lens L2 Linear Spread Lens L3 Softening Lens includes retaining ring 	<p>Examples: LACEDAR L1 LACEDAR L2 LACEDAR L3</p>
	INTERNAL COLORED FILTERS <ul style="list-style-type: none"> FA Amber FG Green FGD Green Dichroic FLB Light Blue FM Mercury Vapor FMB Medium Blue FMBD Medium Blue Dichroic FR Red FRD Red Dichroic includes retaining ring 	<p>Examples: CFCEDAR FA CFCEDAR FG CFCEDAR FGD CFCEDAR FLB CFCEDAR FM CFCEDAR FMB CFCEDAR FMBD CFCEDAR FR CFCEDAR FRD</p>

The difference between the FLC and WSL lens



DATE	PROJECT	FIRM	TYPE
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THE ALL-SILICONE, FLEXIBLE LUMINAIRE WITH OPTICS, TROV FLEX L09 PACKS 2-STEP COLOR CONSISTENCY INTO A DURABLE PACKAGE SUITABLE FOR BOTH EXTERIOR AND INTERIOR USE. ITS ULTRA-DISCREET PROFILE MAKES IT AN IDEAL FIT FOR APPLICATIONS WHERE SPACE IS A PREMIUM.

FEATURES:

- DIMMABLE TO 0%
- 3 BEAM ANGLES
- FIELD CUTTABLE EVERY 6 INCHES
- 24 VDC CLASS 2
- 90+ CRI
- IP67 RATED FOR OUTDOOR AND INDOOR APPLICATIONS



MODEL SIZE	INTERIOR/EXTERIOR	LENGTH	POWER	CCT	CRI	VOLTAGE	OPTICS
L09	E - Exterior	120	05 - 5W/ft 09 - 9W/ft	27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K	90 - 90CRI	CV24	10x10 15x40 ASYM

NOTE: 120in spools come with a 12in leader cable attached and sealed inside the fixture. If cutting and reusing section, additional leader cables need to be ordered separately.

EXAMPLE: L09-E-120-05-27-90-CV24-15x40

PERFORMANCE	WATTS	OPTIC	LUMEN OUTPUT	EFFICACY	CBCP
	05	10x10 15x40 ASYM	440 lm/FT (1,443 lm/m) 441 lm/FT (1,447 lm/m) 428 lm/FT (1,405 lm/m)	92 lm/W 92 lm/W 89 lm/W	4,345 700 385
	09	10x10 15x40 ASYM	714 lm/FT (2,344 lm/m) 716 lm/FT (2,350 lm/m) 696 lm/FT (2,282 lm/m)	84 lm/W 84 lm/W 82 lm/W	7,056 1,137 626





ALL LUMEN DATA IS FROM 4000K 90CRI FIXTURES. PLEASE SEE PHOTOMETRY SPEC SHEET FOR ADDITIONAL LUMEN AND TM-30 DATA.

COLOR RENDERING INDEX 90+
COLOR CONSISTENCY 2-STEP MACADAM ELLIPSE

LUMEN DEPRECIATION / RATED LIFE

WATTS	L70 @ 25C
5W-9W	>50,000

*CALCULATIONS FOR LED FIXTURES ARE BASED ON MEASUREMENTS THAT COMPLY WITH IES LM-80 TESTING PROCEDURES AND IES TM-21 CALCULATOR.

ELECTRICAL	MAX POWER CONSUMPTION MAX FIXTURE RUN LENGTH OPERATING VOLTAGE DRIVER STARTUP TEMPERATURE OPERATING TEMPERATURE STORAGE TEMPERATURE	5W/ft = 4.8W (15.7W/m) ; 9W/ft = 8.7W/ft (28.5W/m) 5W/ft = 20ft (Interior) 10ft (Exterior), 9W/ft = 10ft 24VDC REMOTE DRIVER SOLD SEPARATELY -4°F TO 122°F (-20°C TO 50°C) -4°F TO 122°F (-20°C TO 50°C) -40°F TO 176°F (-40°C TO 80°C)
PHYSICAL	HOUSING/LENS WEIGHT CONNECTORS ENVIRONMENT MOUNTING OPTIONS CUT LENGTH BEND RADIUS	SILICONE HOUSING AND LENS 2.22oz/ft ; (206.5g/m) INTEGRAL MALE AND FEMALE CONNECTORS OUTDOOR WET LOCATION IP67 FOR OUTDOOR, MARINE, AND NATATORIUM APPLICATIONS STAINLESS STEEL MOUNTING BRACKET NEEDED EVERY 6 INCHES. SOLD SEPARATELY. CUTTABLE EVERY 6 INCHES (152.4MM) 3IN (75MM) VERTICAL, 0IN (0MM) HORIZONTAL
CONTROL	DIMMING	0%-100%
FIXTURE RATING & CERTIFICATIONS	UL AND CE LISTED RoHS COMPLIANT TITLE 24 JA8	   
LIMITED WARRANTY	5 YEARS	

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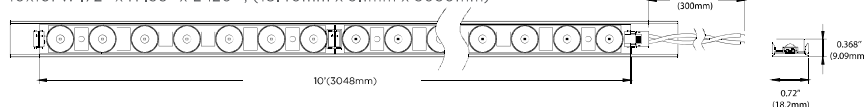
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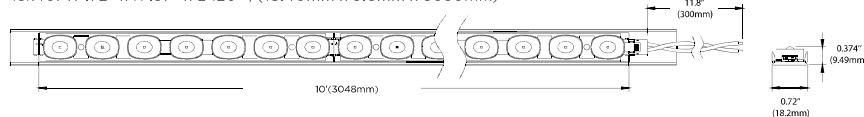
PHYSICAL

DIMENSIONS

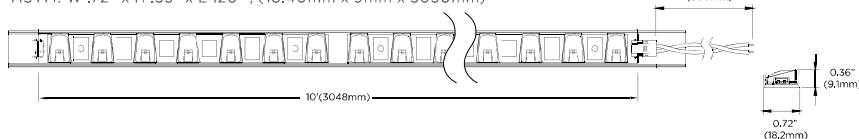
10x10: W .72" x H .36" x L 120" ; (18.40mm x 9.1mm x 3050mm)



15x40: W .72" x H .37" x L 120" ; (18.40mm x 9.5mm x 3050mm)



ASYM: W .72" x H .35" x L 120" ; (18.40mm x 9mm x 3050mm)



WIRING OPTIONS (Stand alone cables are dry/damp use only. Cable covers are required for wet locations.)

Cable Assembly, AVX Connector, Leader, 6 feet	CBL-AVX-LDR-6ft
Cable Assembly, AVX Connector, Jumper, 4 inches	CBL-AVX-JMP-4in
Cable Assembly, AVX Connector, Jumper, 12 inches	CBL-AVX-JMP-12in
Cable Assembly, AVX Connector, Jumper, 6 feet	CBL-AVX-JMP-6ft

L09 120 inch spools come with 12" wired leads. Leader and jumper cables are only needed when cutting to shorter lengths.

REMOTE DRIVER OPTIONS

MAGNETIC NORTH AMERICA

Driver, Magnetic, Exterior, MLV & TRIAC, 96W, 120/277V Dual Tap	DRV-M-E-96W-120/277-SBC
Driver, Magnetic, Exterior, MLV & TRIAC, 60W, 120/277V Dual Tap	DRV-M-E-60W-120/277-SBC
Driver, Magnetic, Exterior, MLV & TRIAC, 40W, 120/277V Dual Tap	DRV-M-E-40W-120/277-SBC

ELECTRONIC NORTH AMERICA

Driver, Electronic, Exterior, 0-10V & TRIAC & ELV, 96W, 120-277V Multi-Volt	DRV-E10-E-96W-120-277-LTF
Driver, Electronic, Exterior, 0-10V & TRIAC & ELV, 60W, 120-277V Multi-Volt	DRV-E10-E-60W-120-277-LTF
Driver, Electronic, Exterior, 0-10V & TRIAC & ELV, 40W, 120-277V Multi-Volt	DRV-E10-E-40W-120-277-LTF

MULTI-OUTPUT ELECTRONIC NORTH AMERICA

Driver, Electronic, Exterior, 0-10V & TRIAC & ELV, 96WX2, 100-277V Multi-Volt	DRV-E10-E-96WX2-100-277-KVG
Driver, Electronic, Exterior, 0-10V & TRIAC & ELV, 96WX3, 100-277V Multi-Volt	DRV-E10-E-96WX3-100-277-KVG
Driver, Electronic, Exterior, 0-10V & TRIAC & ELV, 96WX4, 100-277V Multi-Volt	DRV-E10-E-96WX4-100-277-KVG

ELECTRONIC INTERNATIONAL

Driver, Electronic, Exterior, 0-10V, 100W, 100-305V Multi-Volt, CE Only	DRV-E10-E-100W-100-305-ELG
Driver, Electronic, Exterior, DALI, 100W, 100-305V, Multi-Volt, CE Only	DRV-DALI-E-100W-100-305-ELG
Driver, Electronic, Exterior, 0-10V, 120W, 90-305V Multi-Volt, CE Only	DRV-E10-E-120W-90-305-PWM
Driver, Electronic, Exterior, DALI, 120W, 90-305V Multi-Volt, CE Only	DRV-DALI-E-120W-90-305-PWM

See Remote Driver Spec Sheets for more details.
Drivers can be fully loaded.

VOLTAGE DROP CHART - WIRE GAUGE NEEDED FOR WIRE LENGTH FROM FIXTURE TO DRIVER

Wire Gauge	Total Wattage per Run									
	10W .42 A	20W .83 A	30W 1.3 A	40W 1.7 A	50W 2.1 A	60W 2.5 A	70W 2.9 A	80W 3.3 A	90W 3.75 A	100W 4.2 A
20 AWG	85 ft.	43 ft.	27 ft.	21 ft.	17 ft.	14 ft.	12 ft.	11 ft.	9 ft.	8 ft.
18 AWG	134 ft.	68 ft.	45 ft.	33 ft.	27 ft.	22 ft.	19 ft.	17 ft.	15 ft.	14 ft.
16 AWG	215 ft.	109 ft.	72 ft.	54 ft.	43 ft.	36 ft.	31 ft.	27 ft.	24 ft.	22 ft.
14 AWG	345 ft.	174 ft.	115 ft.	86 ft.	69 ft.	57 ft.	49 ft.	43 ft.	39 ft.	36 ft.
12 AWG	539 ft.	272 ft.	181 ft.	135 ft.	108 ft.	90 ft.	77 ft.	68 ft.	61 ft.	56 ft.
10 AWG	784 ft.	397 ft.	263 ft.	197 ft.	158 ft.	131 ft.	112 ft.	98 ft.	97 ft.	82 ft.

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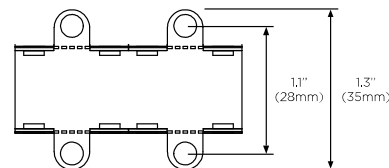
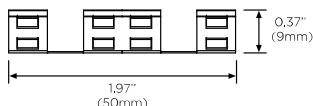
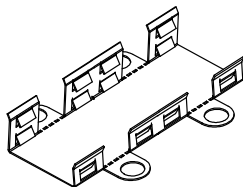
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TYPE

L09 MOUNTING ACCESSORIES**Mounting Bracket..... L09-A-MNT-BRKT**

Mounting brackets need to be installed every 6 inches. Mounting brackets can be used in inverted applications.

**Mounting Extrusions, Dust Covers, and Aimable Brackets**
(See Extrusion Web page and Spec Sheet for more details)

- Mounting Extrusions can be used instead of the mounting brackets. There is a symmetrical profile for the 10x10 and 15x40, and an asymmetric profile for the ASYM optic. They come in 62in lengths, include a set of end caps, and are available in clear anodized, white, and black finishes. The extrusions have pre-drilled holes for mounting directly to the surface. They are field cuttable. Factory cutting is not available.
- Optional Aimable Brackets mount directly to mounting extrusions to provide up to 180-degree aiming. They will not mount directly to L09. 1 bracket is used for 12in and 2 brackets for 12in-60in extrusions.
- Option Dust Covers can be added to the top of the extrusions to keep dust and debris off L09. They come in symmetric and asymmetric options to coincide with the extrusions.

Symmetric Components

L09 Flat mounting extrusion, 62in, symmetric, clear anodized aluminum L09-A-MNT-EXT-SYM-62IN-AL
L09 Flat mounting extrusion, 62in, symmetric, white L09-A-MNT-EXT-SYM-62IN-WH
L09 Flat mounting extrusion, 62in, symmetric, black L09-A-MNT-EXT-SYM-62IN-BK
L09 Extrusion end cap set, symmetric, set of 2, black L09-A-MNT-EXT-SYM-ENDCAPS
L09 Extrusion end cap set, symmetric, set of 2, white L09-A-MNT-EXT-SYM-ENDCAPS-WH
L09 Clear dust cover, 62in, symmetric L09-A-DUSTCVR-SYM-62IN

Asymmetric Components

L09 Flat mounting extrusion, 62in, asymmetric, clear anodized aluminum L09-A-MNT-EXT-ASYM-62IN-AL
L09 Flat mounting extrusion, 62in, asymmetric, white L09-A-MNT-EXT-ASYM-62IN-WH
L09 Flat mounting extrusion, 62in, asymmetric, black L09-A-MNT-EXT-ASYM-62IN-BK
L09 Extrusion end cap set, asymmetric, set of 2, black L09-A-MNT-EXT-ASYM-ENDCAPS
L09 Extrusion end cap set, asymmetric, set of 2, white L09-A-MNT-EXT-ASYM-ENDCAPS-WH
L09 Clear dust cover, 62in, asymmetric L09-A-DUSTCVR-ASYM-62IN

Universal Components

L09 Extrusion Aiming Bracket, SYM and ASYM, set of 2, clear anodized L09-A-MNT-EXT-ADJ-BRKTs

Louvers

(See Extrusion web-page and spec sheet for more details)

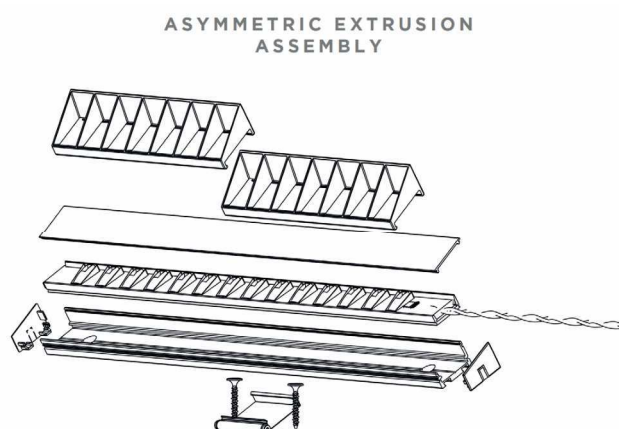
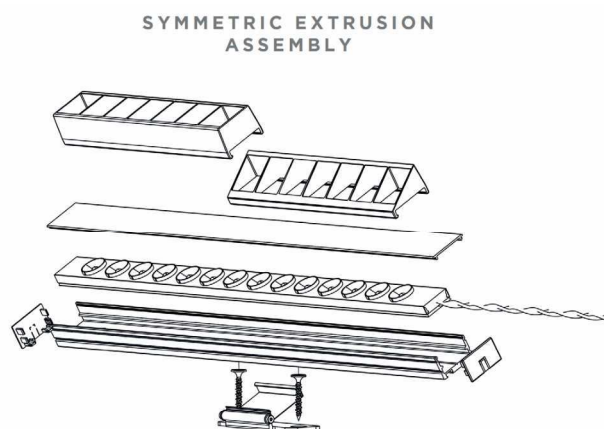
- Louvers can be used to shield the optics and reduce glare. They are available in full and half shield for the 10x10 and 15x40 and half shielding for the ASYM optic.
- Louvers will only work with the mounting extrusions. They will not mount directly to L09.
- Louvers are specific to each mounting extrusion type, so order a symmetric louver when using the symmetric extrusion and an asymmetric louver when using the asymmetric extrusion.

SYMMETRIC COMPONENTS

L09 Half Louver, Symmetric, 6in, black L09-A-SYM-HL
L09 Full Louver, Symmetric, 6in, black L09-A-SYM-FL

ASYMMETRIC COMPONENTS

L09 Half Louver, Asymmetric profile, 6in, black L09-A-ASYM-HL

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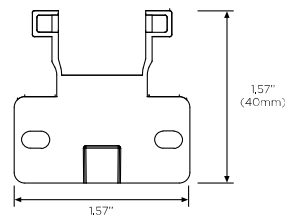
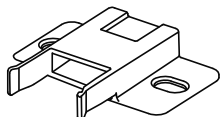
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L09 CONNECTING ACCESSORIES**Terminator Cap..... L09-A-CAP**

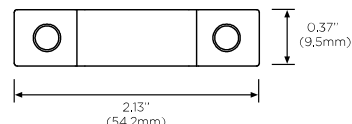
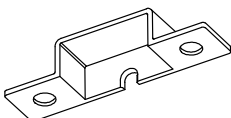
The terminator cap is only needed to seal the cut end of the fixture in wet locations. If the fixtures are not cut or are being installed in damp/dry locations, the terminator cap is not needed. One cap per cut is needed.

**Strain Relief..... L09-A-SR**

Strain reliefs are used to prevent accidental pull out of the AVX connector used on leader and jumper cables. They are not required but recommended for applications where the fixtures are accessible.

Use one strain relief per leader cable and two per jumper cable.

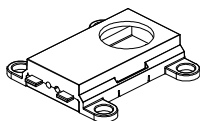
Comes in a 5-Pack.

**Cable Covers**

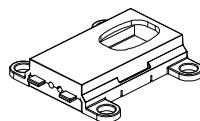
Cable Covers are used to provide a waterproof (IP66) seal over cable connections. One cable cover is needed per connection point. Cable covers are specific to each optic, so order based on the fixture optic being used. Cable covers have non-hardening silicone grease that prevents water ingress. This grease can only be used once, so if they are attached then removed, additional silicone grease will need to be added in the field. **Cable Covers will not fit inside the extrusion. Plan for them to stick out the ends.**

L09 Cable Cover for 10x10..... L09-A-CBLCVR-10x10**L09 Cable Cover for 15x40..... L09-A-CBLCVR-15x40****L09 Cable Cover for ASYM..... L09-A-CBLCVR-ASYM**

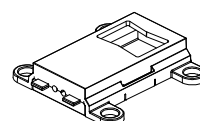
10 x 10



15 x 40



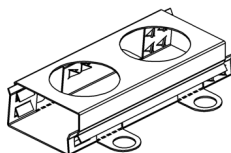
ASYM

**Connection Covers (Including Mounting Bracket)**

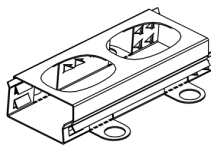
Connection Covers are used to provide a waterproof (IP66) connection between two cut sections of L09 that are joined together. They can be used to make two 10ft sections of 5W/ft into one 20ft run or used to join cut off sections into one long run. 9W/ft cannot exceed 10ft. The Connection Cover, and included mounting bracket, have non-hardening silicone grease preapplied that prevents water ingress into the cut connection. This grease can only be used once, so if they are attached then removed, additional silicone grease will need to be added in the field. Connection Covers are specific to each optic, so order based on the fixture optic being joined. **Connection covers will not fit inside extrusions. A 50mm gap in extrusion joints will be needed.**

L09 Connection Cover for 10x10, Includes Mounting Bracket..... L09-A-CONCVR-10x10**L09 Connection Cover for 15x40, Includes Mounting Bracket..... L09-A-CONCVR-15x40****L09 Connection Cover for ASYM, Includes Mounting Bracket..... L09-A-CONCVR-ASYM**

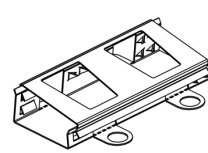
10 x 10



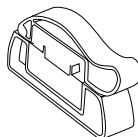
15 x 40



ASYM

**Cutting Tool..... L09-A-CUTTOOL**

The cutting tool ensures a clean safe cut that will not damage the optic or AVX connector. One cutter per installer is recommended.

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DATE

PROJECT

FIRM

TYPE

PHOTOMETRIC DATA

90 CRI

L90 5W

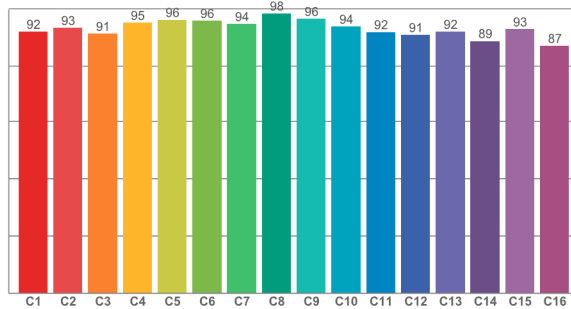
	10'x10'	15'x40'	ASYM
2700K			
Lumens	393	394	383
Efficacy	82	82	80
CBCP	3.346	3.346	3.346
3000K			
Lumens	415	416	404
Efficacy	86	87	84
CBCP	4.124	4.124	4.124
3500K			
Lumens	421	422	410
Efficacy	88	88	85
CBCP	3.420	3.420	3.420
4000K			
Lumens	440	441	428
Efficacy	92	92	89
CBCP	4.345	4.345	4.345

L90 9W

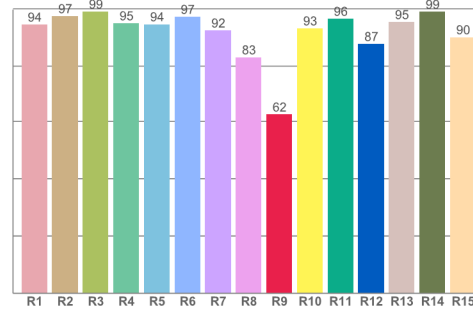
	10'x10'	15'x40'	ASYM
2700K			
Lumens	639	641	622
Efficacy	75	75	73
CBCP	6.311	6.311	6.311
3000K			
Lumens	674	676	656
Efficacy	79	79	77
CBCP	6.018	6.018	6.018
3500K			
Lumens	684	686	666
Efficacy	80	81	78
CBCP	6.371	6.371	6.371
4000K			
Lumens	714	716	696
Efficacy	84	84	82
CBCP	7.056	7.056	7.056

L09-E-012-05-27-90-CV24-ASYM (5 Watt, 2700K, 90 CRI, ASYM)

TM30: 92.9



CRI: 93.9 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
94.28	97.21	98.79	94.72	94.38	96.97	92.20	82.84	62.18	92.95	96.30	87.50	95.14	98.72	89.85

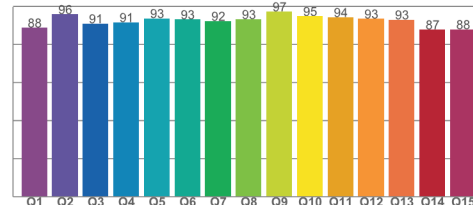
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.77	93.08	91.02	94.86	95.88	95.52	94.44	98.14	96.23	93.53	91.61	90.62	91.74	88.51	92.59	86.81

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.44	95.52	90.65	91.29	93.39	92.81	91.96	92.90	96.94	94.51	93.95	93.16	92.72	87.48	87.59

CQS: 91.6



Color parameters

CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Duv
2801 K	93.9	62.2	92.9	100.0	91.6	0.5	0.4	0.3	0.3	-0.0005

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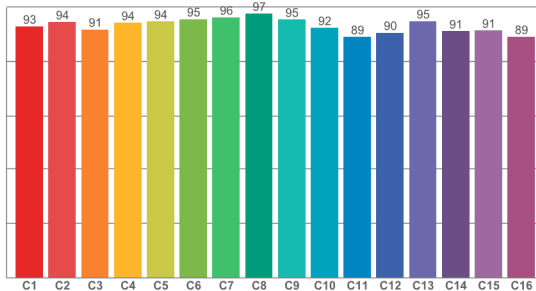
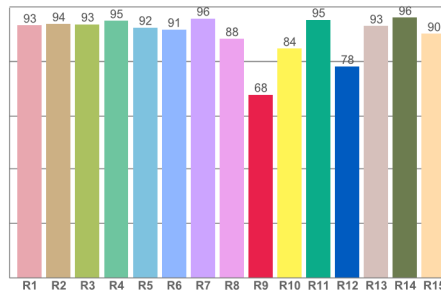
TYPE:
XF6

DATE

PROJECT

FIRM

TYPE

L09-E-012-05-35-90-CV24-ASYM (5 Watt, 3500K, 90 CRI, ASYM)**TM30: 92.8****CRI: 92.7 (R1-R8)****CRI R values, only R1-R8 are used to calculate final CRI value**

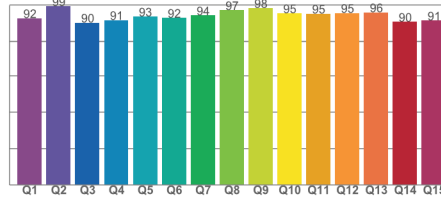
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93.00	93.52	93.42	94.64	92.18	91.45	95.53	88.06	67.62	84.46	95.04	77.90	92.74	95.83	89.90

TM30 C values, 16 binned values out of total of 99 C values

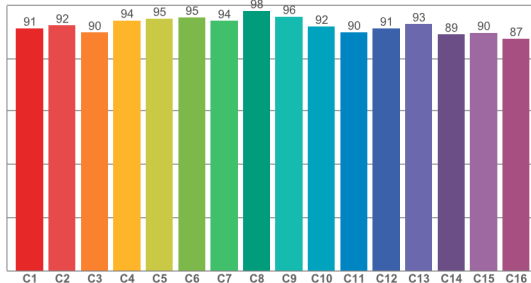
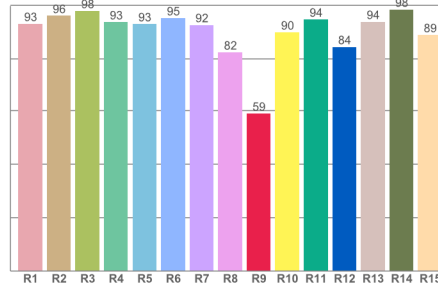
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.59	94.22	91.47	93.94	94.40	95.28	95.91	97.31	95.10	92.05	88.74	90.31	94.52	90.84	91.10	88.81

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92.32	98.86	89.87	91.29	93.21	92.47	93.83	96.70	97.91	94.99	94.80	95.19	95.52	90.32	91.02

CQS: 93.3**Color parameters**

CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Duv
3459 K	92.7	67.6	92.8	100.1	93.3	0.4	0.4	0.2	0.3	0.0032

L09-E-012-09-30-90-CV24-ASYM (9 Watt, 3000K, 90 CRI, ASYM)**TM30: 92.3****CRI: 92.8 (R1-R8)****CRI R values, only R1-R8 are used to calculate final CRI value**

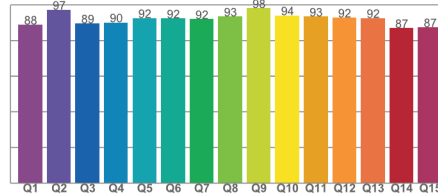
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92.86	95.81	97.66	93.48	92.77	94.98	92.42	82.23	58.67	89.68	94.46	84.25	93.61	98.18	88.71

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.12	92.21	89.56	94.11	94.77	95.19	93.90	97.66	95.52	91.80	89.64	91.12	92.73	88.87	89.51	87.29

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.49	96.82	89.20	89.75	92.17	91.96	91.56	93.06	97.74	93.68	93.02	92.44	92.19	86.58	87.06

CQS: 91.1**Color parameters**

CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Duv
3107 K	92.8	58.7	92.3	100.0	91.1	0.4	0.4	0.2	0.3	-0.0004

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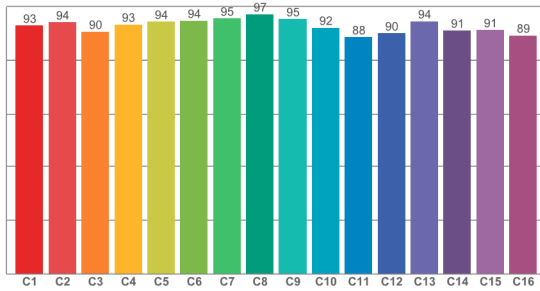
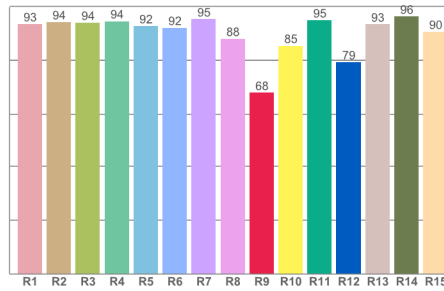
TYPE:
XF6

DATE

PROJECT

FIRM

TYPE

L09-E-012-09-35-90-CV24-10x10 (9 Watt, 3500K, 90 CRI, 10x10)**TM30: 92.4****CRI: 92.7 (R1-R8)****CRI R values, only R1-R8 are used to calculate final CRI value**

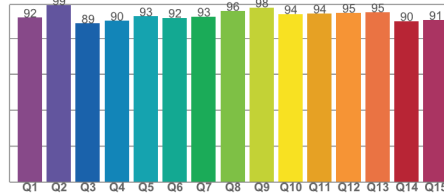
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93.17	93.91	93.71	94.24	92.43	91.78	94.96	87.75	67.70	85.14	94.59	79.04	93.06	95.97	90.34

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.61	93.84	90.36	93.03	94.05	94.43	95.26	96.82	95.04	91.84	88.34	89.76	94.24	90.81	90.98	88.97

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92.18	99.00	88.95	90.44	92.90	92.14	92.78	95.91	97.87	94.20	94.48	94.86	95.18	90.31	90.88

CQS: 92.9**Color parameters**

CCT	CRI	CRI R9	TM30 Rf	TM30 Ra	CQS	x	y	u	v	Duv
3469 K	92.7	67.7	92.4	100.6	92.9	0.4	0.4	0.2	0.3	0.0017

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PROJECT: SARA SHERIDAN

TYPE:
XF6**APPENDIX: LIGHTING FIXTURE CUTSHEET PACKAGE**

Application

Wall luminaires with directed narrow beam light distribution on one side that can be oriented upward or downward. Arranged individually or in groups, they are great design elements for a host of lighting applications.

Materials

Clear safety glass
Marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy
Mechanically captive stainless steel fasteners
High temperature silicone gasket
Pure anodized aluminum reflector

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65

Weight: 4.4 lbs.

Electrical

Operating voltage 120-277VAC
Minimum start temperature -30°C
LED module wattage 7.9W
System wattage 10.5W
Controllability 0-10V dimmable
Color rendering index $Ra > 80$
Luminaire lumens 652lm
LED service life (L70) 60000 hrs

LED color temperature

- ☐ 4000K (K4)
- ☐ 3500K (K35)
- ☐ 3000K (K3)
- ☐ 2700K (K27)

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured powder coat with minimum 3 mil thickness. BEGA Unidure® finish, a fluoropolymer technology, provides superior fade protection in Black, Bronze, and Silver. BEGA standard White is a super durable polyester powder. Optionally available RAL and custom color finishes provided in either polyester powder or liquid paint.

Available colors

- ☐ Black (BLK)
- ☐ Silver (SLV)
- ☐ RAL:
- ☐ Bronze (BRZ)
- ☐ White (WHT)
- ☐ CUS:

Type:

BEGA Product:

Project:

Modified:

Available options

- ☐ AMB Amber LED

Available accessories

- ☐ B79547 Surface mounted wiring box

See individual accessory spec sheet for details.

Included (available for pre-shipment)

- ☐ B19537 Narrow opening wiring box



Wall luminaire · Narrow beam upward or downward

	LED	β	A	B	C	D
B66655	7.9W	20°	$4\frac{3}{8}$	9	$6\frac{3}{8}$	$1\frac{5}{8}$

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

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