

FRISCO BAY MARINA

SITE AND LANDSCAPE IMPROVEMENTS

277 MARINA ROAD
FRISCO . COLORADO

BID DOCUMENTS
19 SEPTEMBER 2022



frisco bay marina
site and landscape
improvements

277 marina road
frisco . colorado

PROJECT # 2161

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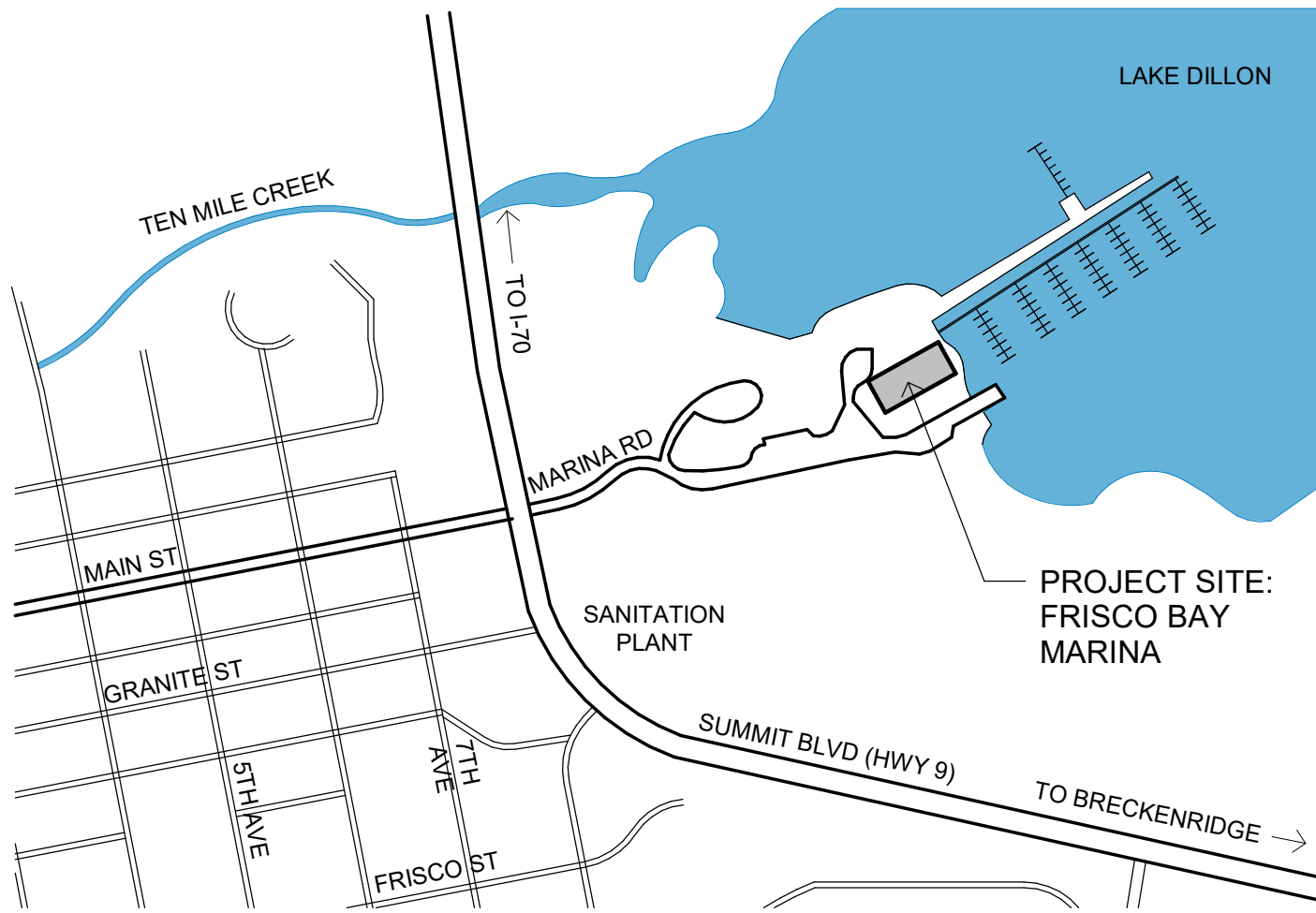
ISSUE:

review	5 may 2022
bid set	24 may 2022
bid documents	19 sept 2022

COVER SHEET

CS

VICINITY MAP



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PROJECT MANUAL

PROJECT TEAM

OWNER:

TOWN OF FRISCO
1 EAST MAIN ST
P.O. BOX 4100
FRISCO . CO . 80443
970.668.2559

CIVIL ENGINEER:

MURRAYSMITH
850 W SOUTH BOULDER ROAD, SUITE 200
LOUISVILLE . CO . 80027
303.402.6964

SURVEYOR:

SCHMIDT LAND SURVEYING, INC.
P.O BOX 5761
FRISCO . CO . 80443
970-409-9963

LANDSCAPE ARCHITECT:

NORRIS DESIGN
409 E MAIN ST. SUITE 207
P.O. BOX 2320
FRISCO . CO . 80443
970.368.7068

GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AND THE TOWN OF FRISCO ENGINEERING STANDARDS, MATERIAL SPECIFICATIONS AND DRAWINGS.
2. THE CONTRACTOR SHALL POTHOLE AND VERIFY LOCATIONS, ELEVATIONS, TYPES AND SIZES OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTING NEW PIPING FAR ENOUGH IN ADVANCE TO ALLOW NECESSARY ADJUSTMENTS IN GRADE AND SHALL NOTIFY ENGINEER OF NEED TO ADJUST PIPING INSTALLATION ACCORDINGLY. POTHOLING SHALL SUFFICIENTLY PRECEDE LAYING OF PIPE TO ALLOW REQUIRED ELEVATION ADJUSTMENTS TO BE ACCOMPLISHED WITHOUT REWORK. ELEVATION ADJUSTMENTS SHALL BE EXPECTED AND ARE INCIDENTAL TO THE WORK. DEFLECT PIPE AS REQUIRED AND WITHIN SPECIFIED TOLERANCES TO AVOID EXISTING UTILITIES AND COMPLETE TIE-INS.
3. LOCATIONS OF EXISTING UTILITIES ARE BASED ON INFORMATION SUPPLIED BY THE UTILITIES AND CONSIDERED APPROXIMATE ONLY. AS REQUIRED BY STATE LAW, THE CONTRACTOR SHALL OBTAIN UTILITY LOCATES PRIOR TO COMMENCING CONSTRUCTION.
4. CONTRACTOR SHALL PROVIDE ENGINEER WITH MINIMUM 24 HOURS NOTICE WHEN POTHOLING WILL BE COMPLETE. COORDINATE WITH ENGINEER TO REVIEW UTILITY INVESTIGATIONS AND TO MAKE APPROPRIATE ADJUSTMENTS FOR ANY ALIGNMENT CONFLICTS WHERE CONNECTING TO EXISTING UTILITIES.
5. COLORADO LAW REQUIRES THE CONTRACTOR TO FOLLOW THE RULES ADOPTED BY THE COLORADO UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN THE 2017 PROCEDURES GUIDE, EXCAVATION HANDBOOK & TITLE 9 SAFETY- INDUSTRIAL AND COMMERCIAL ARTICLE 1.5 EXCAVATION REQUIREMENTS 9-1.5-101 THROUGH 9-1.5-107. THE CONTRACTOR MAY OBTAIN COPIES OF THE RULES BY DOWNLOADING FROM THE WEBSITE HTTP://COLORADO811.ORG/EDUCATION_CONSOLIDATED/ OR CALLING UTILITY NOTIFICATION CENTER.
6. PROVIDE "AS CONSTRUCTED" DRAWINGS INDICATING ALL CHANGES IN GRADE, ALIGNMENT, FITTINGS AND MATERIALS INSTALLED AND ANY OTHER UTILITIES OR OBSTACLES NOT SO INDICATED ON THESE PLANS.
7. AT THE END OF EACH WORK DAY ALL OPEN TRENCHES SHALL BE BACKFILLED AND ALL TRENCHES SHALL EITHER BE TEMPORARILY PAVED OR FILLED TO THE SATISFACTION OF THE PROJECT ENGINEER OR TOWN REPRESENTATIVE.
8. CONTRACTOR SHALL PROTECT ALL PROPERTY CORNERS, SURVEY MONUMENTS AND CONTROL SURVEY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE, WITH APPROPRIATE SURVEY FILED WITH COUNTY SURVEYOR.
9. CONTRACTOR SHALL SUPPORT AND PROTECT AS NECESSARY ANY PIPE OR CONDUIT EXPOSED AS PART OF NEW PIPE TRENCH EXCAVATION. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE AT ALL TIMES AND SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES TO MAINTAIN AND PROTECT SERVICES.
10. THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED OR REPLACED MATERIAL AND EQUIPMENT IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
11. CONTRACTOR TO LEAVE ALL AREAS OF PROJECT FREE OF DEBRIS AND UNUSED CONSTRUCTION MATERIAL.
12. ALL EXISTING FEATURES INCLUDING, BUT NOT LIMITED TO, ROADWAYS, STRUCTURES, LOTS, CURBS, SIDEWALKS, FENCES, WALLS, TREES AND PLANTINGS, DITCHES, MAILBOXES, SIGNS, PIPING AND UTILITIES DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO AS GOOD OR BETTER THAN EXISTING CONDITION UNLESS OTHERWISE SPECIFIED. IF A UTILITY IS DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT OWNER OF UTILITY FOR INSPECTION OF DAMAGE PRIOR TO REPAIRS. CONTRACTOR SHALL REPAIR ALL UTILITY SERVICES DAMAGED DURING CONSTRUCTION AND SUCH REPAIR SHALL BE CONSIDERED INCIDENTAL.
13. PRIOR TO BACKFILLING ANY UTILITY CONTRACTOR SHALL NOTIFY TOWN STAFF TO OBTAIN GEOGRAPHIC INFORMATION SYSTEM (GIS) INFORMATION ON ALL FITTINGS, CAPS, VALVES, METERS, AND CHANGES OF DIRECTION.
14. THE CONTRACTOR SHALL LIMIT ALL WORK, STAGING AND STORAGE AREAS TO THE PROJECT SITE WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS.
15. PROVIDE THRUST BLOCKS AT ALL BENDS, VALVES, TEES, AND WYES.

TOPOGRAPHIC SURVEY NOTES:

1. SURVEY WAS COMPLETED BY SCHMIDT LAND SURVEYING, INC.
2. DATE OF SURVEY: EAST PORTION PARKING APRIL 16, 2018. UPDATED SEPTEMBER 2019 AFTER INITIAL BIG DIG CONSTRUCTION. UPDATE AREA MARCH AND APRIL 2022.
3. PROJECT BENCHMARK: ELEVATIONS ARE BASED ON DENVER WATER DEPARTMENT DATUM WHICH IS HIGHER BY 1.85' THAN U.S.G.S. SEA LEVEL DATUM (1929). CONTROL ELEVATIONS WERE HELD FROM RANGE WEST SURVEYOR'S ORIGINAL TOPOGRAPHY DONE OCTOBER 2012. HORIZONTAL COORDINATES ARE NAD 1983 DATUM.
4. SCHMIDT LAND SURVEYING, INC. DID NOT PERFORM A TITLE SEARCH OF THE SUBJECT PROPERTY TO ESTABLISH OWNERSHIP, EASEMENTS OR RIGHT-OF-WAY OF RECORD.

PROJECT CONTACTS

OWNER:
TOWN OF FRISCO, DEPT OF PUBLIC WORKS
P.O. BOX 4100
P.P. FRISCO, CO 80443
CONTACT: ADDISON CANINO
E: ADDISONC@TOWNOFFRISCO.COM
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WATER UTILITY:
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P: 970-668-9156

ELECTRIC UTILITY:
XCEL ENERGY
P.O. BOX 1819
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E: AMY.LAGACE@XCELENERGY.COM
P: 970-262-4033

SEWER UTILITY:
FRISCO SANITATION DISTRICT
P: 970-668-3723

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL PREPARE, SUBMIT, AND ACQUIRE A COLORADO DEPARTMENT OF PUBLIC HEALTH AND THE ENVIRONMENT (CPDHE) CONSTRUCTION STORMWATER DISCHARGE PERMIT PRIOR TO BEGINNING ANY SITE DISTURBING ACTIVITY IF DISTURBING GREATER THAN ONE ACRE OF LAND AS PART OF THIS PROJECT. CONTRACTOR SHALL PROVIDE PAYMENT FOR ALL REQUIRED PERMIT FEES.
2. CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROL DURING CONSTRUCTION (ANY TIME OF YEAR) IN ACCORDANCE WITH THE CDPHE EROSION PREVENTION AND SEDIMENT CONTROL REQUIREMENTS, THE STANDARD CONSTRUCTION SPECIFICATIONS FOR THIS PROJECT AND THE EROSION CONTROL NOTES INCLUDED BELOW AND WITHIN THESE PLANS. IF DISCREPANCIES BETWEEN STANDARDS OCCUR, THE MORE STRINGENT REGULATION SHALL APPLY.
3. APPROVAL OF THIS EROSION SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G.: SIZE AND LOCATION OF ROADS, PIPES, RESTRICTIONS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
4. THE IMPLEMENTATION OF EROSION/SEDIMENTATION CONTROL (ESC) PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
5. THE BOUNDARIES OF THE LIMITS OF WORK SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED LIMITS OF WORK SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
6. ESC FACILITIES MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONALITY.
8. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.
9. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
10. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED.
11. SEEDING SHALL BE PERFORMED NO LATER THAN SEPTEMBER 1 FOR EACH PHASE OF CONSTRUCTION. ROUGHEN AND SEED ALL DISTURBED SURFACES OUTSIDE OF CRUSHED ROCK SURFACING TOP DRESSING.
12. ESC MEASURES SHALL BE REMOVED BY THE CONTRACTOR WHEN VEGETATION IS FULLY ESTABLISHED.
13. CONTRACTOR SHALL PROVIDE AND MAINTAIN A CONCRETE WASHOUT FACILITY.

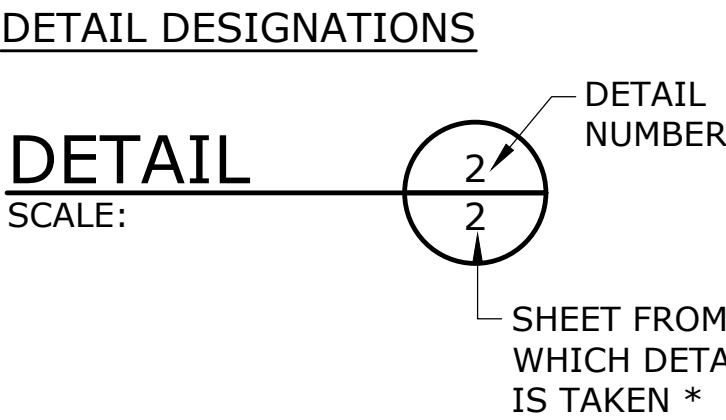
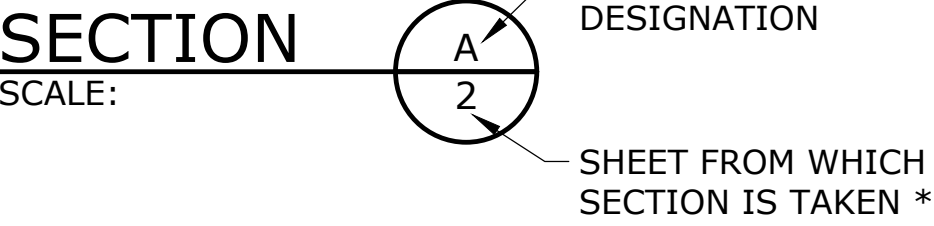
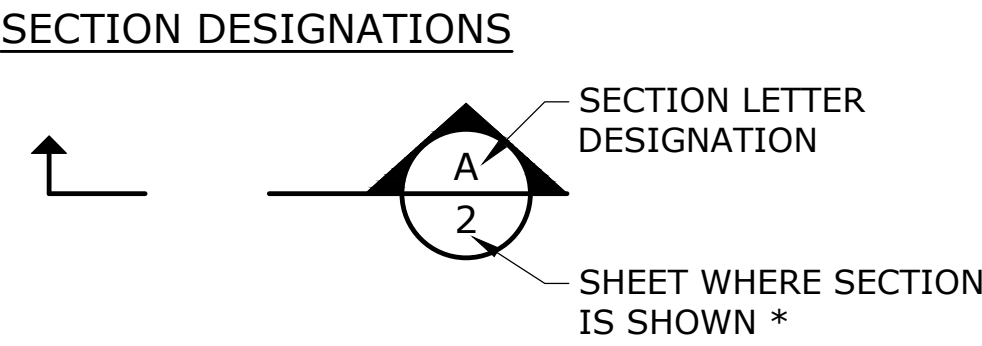
TOPOGRAPHIC LINEWORK LEGEND

	EXISTING	PROPOSED
WATERLINE	10"W	12"DI W
ELECTRICITY	-E-	E
GAS	4"G	4"G
TELEPHONE/TELEMETRY	-T-	T
CABLE TELEVISION	CATV	CATV
SANITARY SEWER LINE	8"SS	8"SS
SANITARY SEWER FORCE MAIN	6"FM	6"FM
STORM DRAIN	8"SD	8"SD
CULVERT	18"D	18"D
ABANDON PIPE		
DRAINAGE DITCH		
BARBWIRE FENCE		
CHAIN LINK FENCE		
SEDIMENT CONTROL LOG		
GUARDRAIL		
ROCK WALL		
TREE/BUSH LINE		
CENTERLINE		
BOULDER COUNTY SHADING		
EASEMENT/PROPERTY LINE		
RIGHT-OF-WAY		
EDGE OF PAVEMENT/AC		
EDGE OF GRAVEL		
CURB		
SIDEWALK	S/W	
STRUCTURE OR FACILITY		
CONTOUR MINOR		
CONTOUR MAJOR	200	200

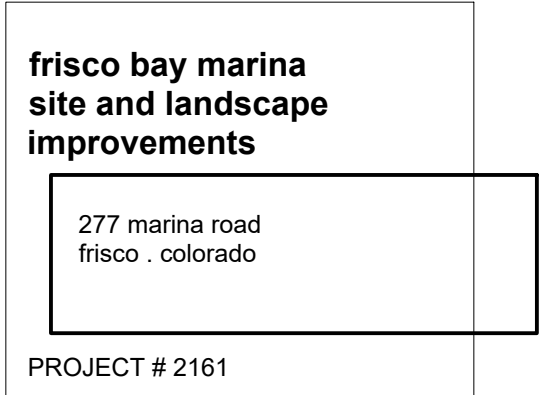
TOPOGRAPHIC SYMBOL LEGEND

	EXISTING	PROPOSED
MANHOLE		
CLEAN-OUT		
CATCH BASIN/FIELD INLET		
THRUST BLOCK		
VALVE		
AIR INJECTION ASSEMBLY		
BLOW-OFF ASSEMBLY		
AIR RELEASE ASSEMBLY		
FIRE HYDRANT ASSEMBLY		
WATER METER		
PULL BOX/JUNCTION BOX		
UTILITY POLE		
GUY WIRE		
LIGHT POST		
MAILBOX		
SIGN		
BENCHMARK		
TREE DECIDUOUS		
TREE CONIFEROUS		
RESTRAINED JOINT PIPE		
SURFACE ELEVATION	+ 176.63	+ 176.63

SECTION AND DETAIL DESIGNATIONS



* NOTE: IF PLAN AND SECTION FOR DETAIL CALL-OUT AND DETAIL ARE SHOWN ON THE SAME DRAWING, DRAWING NUMBER IS REPLACED WITH A DASH.



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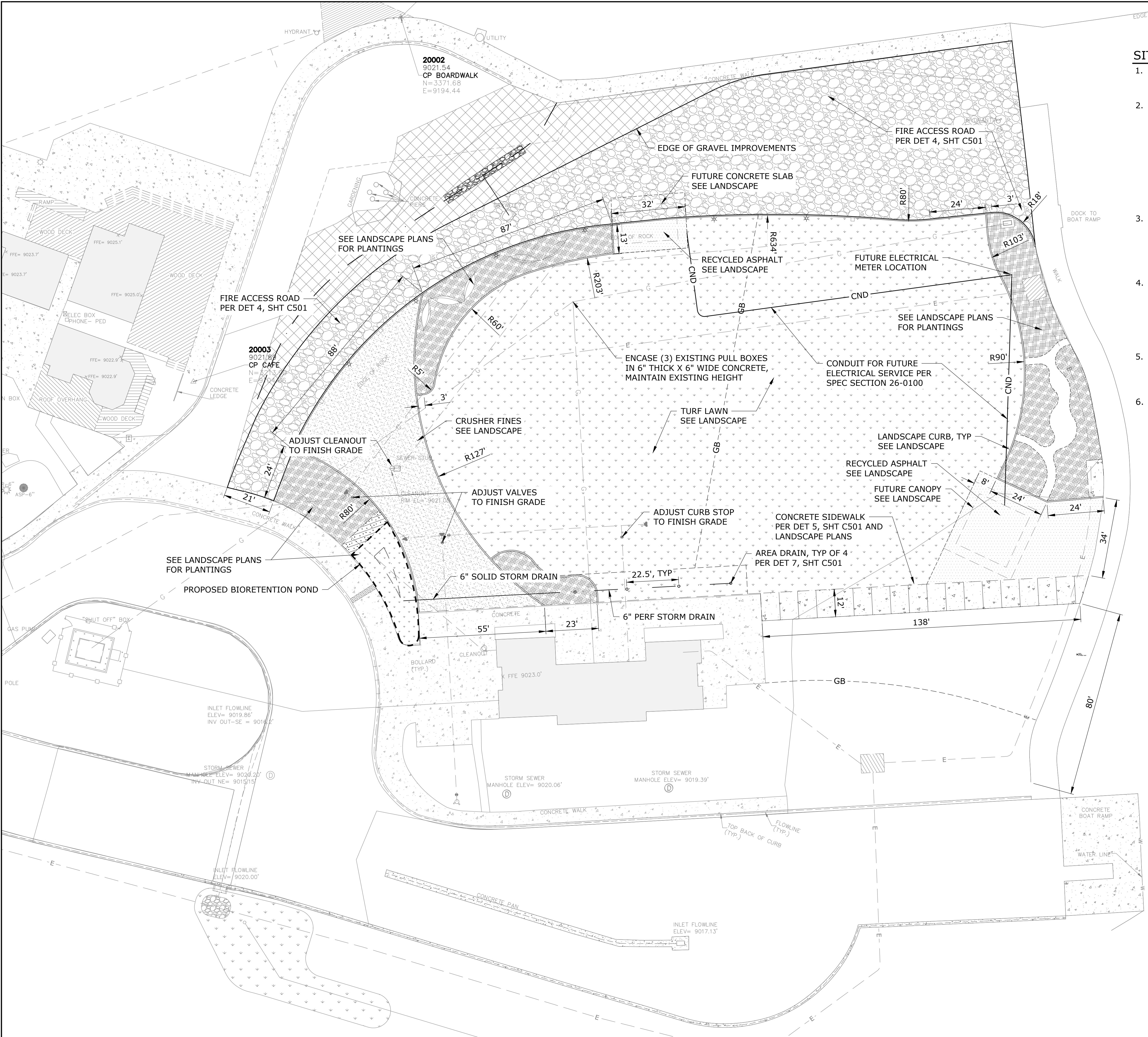
Review	5 may 2022
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bid clarification	30 june 2022
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CIVIL NOTES AND
LEGEND

C001

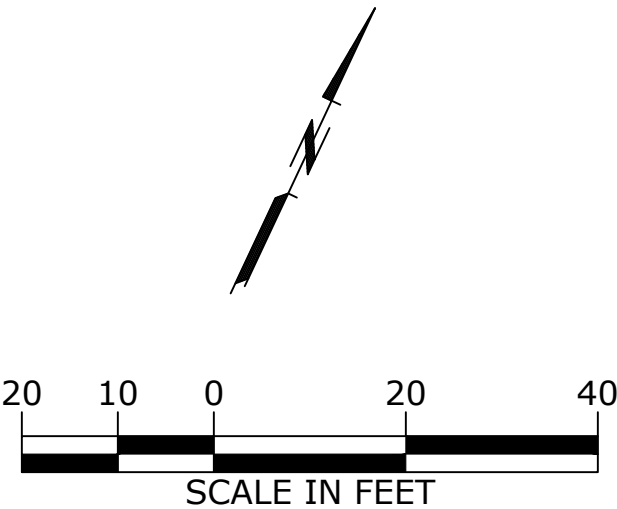
@	AT	CMU	CONCRETE MASONRY UNIT	FOF	FACE OF FINISH	L	LENGTH	PSPT	PIPE SUPPORT	TP	TEST PIT / TOP OF PAVEMENT /
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS	CND	CONDUIT	FOM	FACE OF MASONRY	LAB	LABORATORY	PT	POINT OF TANGENCY	TRANS	TURNING POINT
AB	ANCHOR BOLT	CO	CLEANOUT	FOS	FACE OF STUDS	LAV	LAVATORY	PTVC	POINT OF TANGENCY ON VERTICAL CURVE	TSP	TRANSITION
ABAN(D)	ABANDON(ED)	COL	COLUMN	FPM	FEET PER MINUTE	LB	POUND			TST	TRI-SODIUM PHOSPHATE
ABS	ACRYLONITRILE BUTADIENE STYRENE	COMB	COMBINATION	FPS	FEET PER SECOND	LF	LINEAR FOOT	PV	PLUG VALVE	TW	TOP OF STEEL
ABV	ABOVE / ALCOHOL BY VOLUME	CONC	CONCRETE	FRP	FIBERGLASS REINFORCED PLASTIC	LIN	LINEAL	PVC	POLYVINYL CHLORIDE	TYP	TOP OF WALL
AC	ASPHALTIC CONCRETE	CONN	CONNECTION	FT	FEET / FOOT	LN	LANE	PVMT	PAVEMENT		TYPICAL
ACP	ASPHALTIC CONCRETE PAVING	CONST	CONSTRUCTION	FTG	FOOTING	LOC	LOCATION	PWR	POWER	UG	UNDERGROUND
ADJ	ADJUSTABLE	CONT	CONTINUOUS / CONTINUATION	FUT	FUTURE	LONG	LONGITUDINAL			UH	UNIT HEATER
ADJC	ADJACENT	CONTR	CONTRACT(OR)	FXTR	FIXTURE	LP	LOW PRESSURE	QTY	QUANTITY	UN	UNION
AFF	ABOVE FINISHED FLOOR	COORD	COORDINATE			LPT	LOW POINT			UN	UNLESS OTHERWISE NOTED
AFG	ABOVE FINISHED GRADE	COP	COPPER	G	GAS	LRG	LARGE	RAD	RADIUS	USGS	UNITED STATES GEOLOGIC SURVEY
AHR	ANCHOR	CORP	CORPORATION	GA	GAUGE	LS	LONG SLEEVE / LUMP SUM	RC	REINFORCED CONCRETE		
AL	ALUMINUM	CORR	CORRUGATED	GAL	GALLON	LT	LEFT	RCP	REINFORCED CONCRETE PIPE	V	VENT / VOLT
ALT	ALTERNATE	CP	CONTROL POINT	GALV	GALVANIZED	LVL	LEVEL	RD	ROAD / ROOF DRAIN	VAC	VACUUM
AMP	AMPERE	CPLG	COUPLING	G	GROOVED COUPLING	LWL	LOW WATER LINE	RDCR	REDUCER	VB	VACUUM BREAKER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	CPVC	CHLORINATED POLYVINYL CHLORIDE	GFA	GROOVED FLANGE ADAPTER			REF	REFERENCE	VBOX	VALVE BOX
		CR	CRUSHED ROCK	GI	GALVANIZED IRON	MAN	MANUAL	REINF	REINFORCE(D)(ING)(MENT)	VC	VERTICAL CURVE
APPROX	APPROXIMATE	CS	COMBINED SEWER	GIP	GALVANIZED IRON PIPE	MAT	MATERIAL	REQ'D	REQUIRED	VERT	VERTICAL
APPVD	APPROVED	CSP	CONCRETE SEWER PIPE	GJ	GRIP JOINT	MAX	MAXIMUM	RESTR	RESTRAINED	VFD	VARIABLE FREQUENCY DRIVE
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	CT	COURT	GL	GLASS	MCC	MOTOR CONTROL CENTER	RFCA	RESTRAINED FLANGE COUPLING ADAPTER	VOL	VOLUME
ARCH	ARCHITECTURAL	CTR	CENTER	GLV	GLOBE VALVE	MCP	MASTER CONTROL PANEL			VCP	VITRIFIED CLAY PIPE
ARV	AIR RELEASE VALVE	CU	CUBIC	GND	GROUND	MECH	MECHANICAL	RM	ROOM	VTR	VENT THROUGH ROOF
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	CULV	CULVERT	GPD	GALLONS PER DAY	MET	METAL	RND	ROUND		
		CV	CONTROL VALVE	GPH	GALLONS PER HOUR	MFR	MANUFACTURER	RO	ROUGH OPENING	W	WATER
ASSN	ASSOCIATION	CW	CLOCKWISE / COLD WATER	GPM	GALLONS PER MINUTE	MGD	MILLION GALLONS PER DAY	R/W	RIGHT-OF-WAY	W/	WITH
ASSY	ASSEMBLY	CY	CUBIC YARDS	GPS	GALLONS PER SECOND	MH	MANHOLE	RPBPD	REDUCED PRESSURE BACKFLOW PREVENTION DEVICE	W/IN	WITHIN
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	CYL	CYLINDER LOCK	GR	GRADE	MIN	MINIMUM			W/O	WITHOUT
				GR LN	GRADE LINE	MIPT	MALE IRON PIPE THREAD	RPM	REVOLUTIONS PER MINUTE	W/W	WALL TO WALL
ATM	ATMOSPHERE	D	DRAIN	GRTG	GRATING	MISC	MISCELLANEOUS	RR	RAILROAD	WD	WOOD
AUTO	AUTOMATIC	DC	DIRECT CURRENT	GV	GATE VALVE	MJ	MECHANICAL JOINT	RST	REINFORCED STEEL	WF	WIDE FLANGE
AUX	AUXILIARY	DEFL	DEFLECTION	GRVL	GRAVEL	MON	MONUMENT / MONOLITHIC	RT	RIGHT	WH	WATER HEATER
AVE	AVENUE	DET	DETAIL	GYP	GYPSUM	MOT	MOTOR			WI	WROUGHT IRON
AVG	AVERAGE	DI	DUCTILE IRON			MP	MILEPOST	SALV	SALVAGE	WM	WATER METER
AWWA	AMERICAN WATER WORKS ASSOCIATION	DIA	DIAMETER			MSL	MEAN SEAL LEVEL	SAN	SANITARY	WP	WORKING POINT / WATERPROOFING
		DIM	DIMENSION	HB	HOSE BIBB	MTD	MOUNTED	SC	SOLID CORE	WS	WATER SERVICE
		DIR	DIRECTION	HC	HOLLOW CORE			SCHED	SCHEDULE	WT	WEIGHT
B&S	BELL & SPIGOT	DIST	DISTANCE	HDPE	HIGH DENSITY POLYETHYLENE	NA	NOT APPLICABLE	SD	STORM DRAIN	WTP	WATER TREATMENT PLANT
BC	BOLT CIRCLE	DN	DOWN	HDR	HEADER	NC	NORMALLY CLOSED	SDL	SADDLE	WTRT	WATERTIGHT
BD	BOARD	DR	DRIVE	HDWE	HARDWARE	NF	NEAR FACE	SDR	STANDARD DIMENSION RATIO	WWF	WELDED WIRE FABRIC
BETW	BETWEEN	DS	DOWNSPOUT	HGR	HANGER	NIC	NOT IN CONTRACT	SECT	SECTION	WWTF	WASTEWATER TREATMENT FACILITY
BF	BOTH FACE	DWG	DRAWING	HGT	HEIGHT	NO / NO.	NORMALLY OPEN / NUMBER	SHLDR	SHOULDER	WWTP	WASTEWATER TREATMENT PLANT
BFD	BACKFLOW PREVENTION DEVICE	DWL	DOWEL	HH	HANDHOLD	NOM	NOMINAL	SHT	SHEET		
BFILL	BACKFILL	DWV	DRAIN WASTE AND VENT	HM	HOLLOW METAL	NORM	NORMAL	SIM	SIMILAR		
BFV	BUTTERFLY VALVE	DWY	DRIVEWAY	HMAC	HOT MIX ASPHALT CONCRETE	NRS	NON-RISING STEM	SLP	SLOPE	X SECT	CROSS SECTION
BHP	BRAKE HORSEPOWER			HNDRL	HANDRAIL	NTS	NOT TO SCALE	SLV	SLEEVE	XFMR	TRANSFORMER
BKGD	BACKGROUND	E OR ELEC	ELECTRICAL	HOA	HAND-OFF-AUTO			SOLN	SOLUTION		
BLDG	BUILDING	EA	EACH	HOR	HAND-OFF-REMOTE	O TO O	OUT TO OUT	SP	SOIL PIPE / SEWER PIPE	YD	YARD DRAIN / YARD
BLK	BLOCK	ECC	ECCENTRIC	HORIZ	HORIZONTAL	OC	ON CENTER	SPCL	SPECIAL	YH	YARD HYDRANT
BLVD	BOULEVARD	ECC	ECCENTRIC	HP	HIGH PRESSURE / HORSEPOWER	OD	OUTSIDE DIAMETER	SPEC(S)	SPECIFICATION(S)	YR	YEAR
BM	BENCHMARK / BEAM	EF	EACH FACE	HPG	HIGH PRESSURE GAS	OF	OVERFLOW / OUTSIDE FACE	SPG	SPACING		
BMP	BEST MANAGEMENT PRACTICES	EL	ELEVATION	HPT	HIGH POINT	OPNG	OPENING	SPRT	SUPPORT		
BO	BLOW-OFF	ELB	ELBOW	HR	HOUR	OPP	OPPOSITE	SQ	SQUARE		
BOC	BACK OF CURB	ENCL	ENCLOSURE	HSB	HIGH STRENGTH BOLT	ORIG	ORIGINAL	SQ FT	SQUARE FOOT		
BS	BOTH SIDES	EOG	EDGE OF GRAVEL, EDGE OF GRADING	HV	HOSE VALVE	OVHD	OVERHEAD	SQ IN	SQUARE INCH		
BSMT	BASEMENT	EOP	EDGE OF PAVEMENT	HVAC	HEATING, VENTILATION, AIR CONDITIONING			SQ YD	SQUARE YARD		
BT	BOTTOM FACE	EQ	EQUAL			P&ID	PROCESS & INSTRUMENTATION DIAGRAM	SS	SANITARY SEWER		
BTU	BRITISH THERMAL UNIT	EQL SP	EQUALLY SPACED	HWL	HIGH WATER LINE	PC	POINT OF CURVE	SST	STAINLESS STEEL		
BV	BALL VALVE	EQUIP	EQUIPMENT	HWY	HIGHWAY	PCC	POINT OF COMPOUND CURVE	ST	STREET		
BW	BOTH WAYS	ESMT	EASEMENT	HYD	HYDRANT	PCVC	POINT OF CURVATURE ON VERTICAL CURVE	STA	STATION		
		EW	EACH WAY	HYDR	HYDRAULIC			STD	STANDARD		
		EXC	EXCAVATE			PE	PLAIN END	STL	STEEL		
C	CELSIUS	EXIST	EXISTING	I&C	INSTRUMENTATION & CONTROL	PERF	PERFORATED	STOR	STORAGE		
C TO C	CENTER TO CENTER	EXP	EXPANSION	IAW	IN ACCORDANCE WITH	PERM	PERMANENT	STR	STRAIGHT		
CARV	COMBINATION AIR RELEASE VALVE	EXP BT	EXPANSION BOLT	ID	INSIDE DIAMETER	PERP	PERPENDICULAR	STRUCT	STRUCTURE / STRUCTURAL		
CATV	CABLE TELEVISION	EXP JT	EXPANSION JOINT	IE	INVERT ELEVATION	PG	PRESSURE GAUGE	SUBMG	SUBMERGED		
CB	CATCH BASIN	EXT	EXTERIOR	IF	INSIDE FACE	PH	PIPE HANGER	SUCT	SUCTION		
CCP	CONCRETE CYLINDER PIPE			IMPVT	IMPROVEMENT	PI	POINT OF INTERSECTION	SV	SOLENOID VALVE		
CCW	COUNTER CLOCKWISE	F	FAHRENHEIT	IN	INCH	PIVC	POINT OF INTERSECTION ON VERTICAL CURVE	S/W	SIDEWALK		
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	F TO F	FACE TO FACE	INCC	INCLUDE(D)(ING)	PL OR P/L	PROPERTY LINE / PLATE / PLASTIC PLUMBING	SWD	SIDEWATER DEPTH		
		FAB	FABRICATE	INFL	INFLUENT	PNL	PANEL	SWGR	SWITCH GEAR		
CFM	CUBIC FEET PER MINUTE	FB	FLAT BAR	INJ	INJECTION	POC	POINT OF CURVATURE	SYMM	SYMMETRICAL		
CFS	CUBIC FEET PER SECOND	FCA	FLANGED COUPLING ADAPTER	INSTL	INSTALLATION / INSTALL	POLY	POLYETHYLENE	SYS	SYSTEM		
CHAN	CHANNEL	FCO	FLOOR CLEANOUT	INSUL	INSULATION	PP	POWER POLE				
CHEM	CHEMICAL	FD	FLOOR DRAIN	INTR	INTERCEPTOR	PRC	POINT OF REVERSE CURVATURE	T OR TEL	TELEPHONE		
CHFR	CHAMFER	FDN	FOUNDATION	INTR	INTERIOR	PRCST	PRECAST	T&B	TOP & BOTTOM		
CHKV	CHECK VALVE	FEXT	FIRE EXTINGUISHER	INV	INVERT	PREP	PREPARATION	TAN	TANGENCY		
CI	CAST IRON	FF	FAR FACE	IP	IRON PIPE	PRESS	PRESSURE	TB	THRUST BLOCK		
CIP	CAST IRON PIPE	FGL	FIBERGLASS	IPT	IRON PIPE	PRKG	PARKING	TBM	TEMPORARY BENCHMARK		
CIPC	CAST IN PLACE CONCRETE	FH	FIRE HYDRANT	IR	IRON ROD	PROP	PROPERTY / PROPOSED	TC	TOP OF CONCRETE / TOP OF CURB		
CISP	CAST IRON SOIL PIPE	FIN	FINISH(ED)	IRRIG	IRRIGATION	PRV	PRESSURE REDUCING VALVE	TCE	TEMPORARY CONSTRUCTION EASEMENT		
CJ	CONSTRUCTION JOINT	FIPT	FEMALE IRON PIPE THREAD			PS	PUMP STATION	TDH	TOTAL DYNAMIC HEAD		
CL OR C/L	CENTER LINE	FITG	FITTING	JT	JOINT	PSIG	POUNDS PER SQUARE INCH GAUGE	TEMP	TEMPERATURE / TEMPORARY		
CL2	CHLORINE	FL	FLOOR LINE	JUNC	JUNCTION	PSL	PIPE SLEEVE	T&G	TONGUE & GROOVE		
CLG	CEILING	FLEX	FLEXIBLE					THK	THICK / THICKNESS		
CLJ	CONTROL JOINT	FLG	FLANGE	KPL	KICK PLATE			THRD	THREAD (ED)		
CLR	CLEAR	FLL	FLOW LINE	KVA	KILOVOLT AMPERE			THRU	THROUGH		
CLSM	CONTROLLED LOW STRENGTH MATERIAL	FLR	FLOOR	KW	KILOWATT						
CMP	CORRUGATED METAL PIPE	FM	FORCE MAIN	KWY	KEYWAY						
		FO	FIBER OPTIC								
		FOC	FACE OF CONCRETE								

ISSUE:	
Review	5 may 2022
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bid clarification	30 june 2022
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SITE GENERAL NOTES

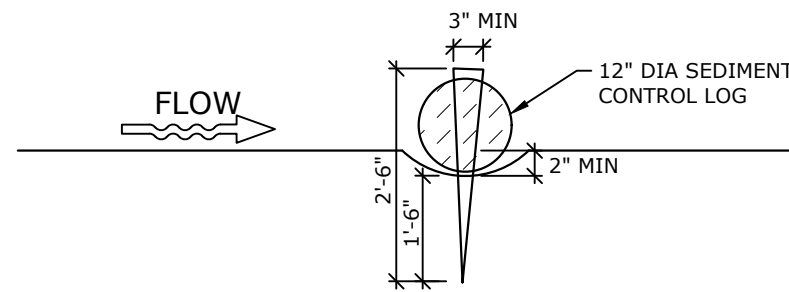
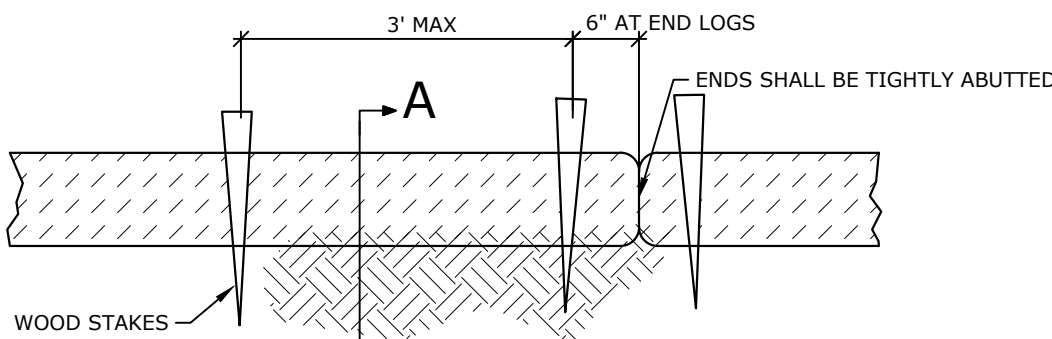
1. DIMENSIONS SHOWN FOR REFERENCE ONLY. SEE LANDSCAPE PLANS FOR FINAL DIMENSIONS ASSOCIATED WITH SITE FEATURES.
2. THE LOCATIONS OF ALL EXISTING UNDERGROUND FACILITIES SHOWN ON THE PLANS ARE BASED ON A FIELD SURVEY AND SITE OBSERVATIONS. LOCATIONS ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS AND SHALL KEEP EXISTING UTILITIES IN SERVICE AND PROTECT THEM DURING CONSTRUCTION. WHERE INTERRUPTION OF EXISTING FACILITIES IS REQUIRED, CONTRACTOR SHALL PROVIDE 72 HOUR NOTICE TO ENGINEER AND THE AFFECTED UTILITY.
3. THE CONTRACTOR SHALL RESTORE ALL STRUCTURES, LOTS, SWALES, DITCHES, CURBS, FENCES, WALLS, MAILBOXES, SIGNS, POLES, GUY WIRES, PIPING, AND UTILITIES DISTURBED DURING CONSTRUCTION TO EXISTING CONDITION UNLESS OTHERWISE SPECIFIED.
4. THE CONTRACTOR SHALL PROTECT TRAFFIC AT ALL TIMES DURING CONSTRUCTION. ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED BY THE OWNER AS REQUIRED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS TO THE OWNER PRIOR TO COMMENCING ANY WORK.
5. CONTRACTOR TO PROVIDE VISIBLE SITE FENCING/CONSTRUCTION FENCING AS NECESSARY TO DIRECT THE PUBLIC AWAY FROM THE CONSTRUCTION SITE.
6. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS ON THE JOB SITE AND SHALL NOTIFY THE ENGINEER OF ANY DIMENSIONAL ERRORS, OMISSIONS OR DISCREPANCIES BEFORE BEGINNING OR FABRICATING WORK.



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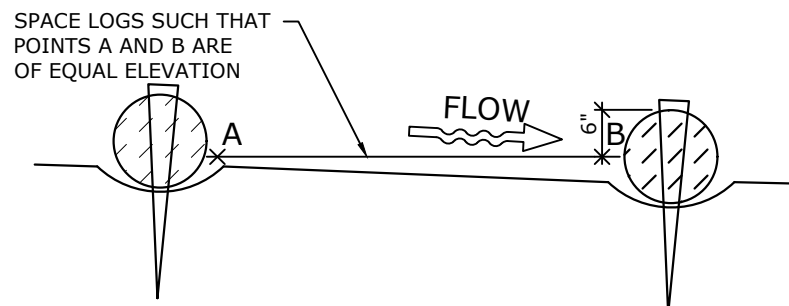
CIVIL SITE PLAN



SECTION A-A

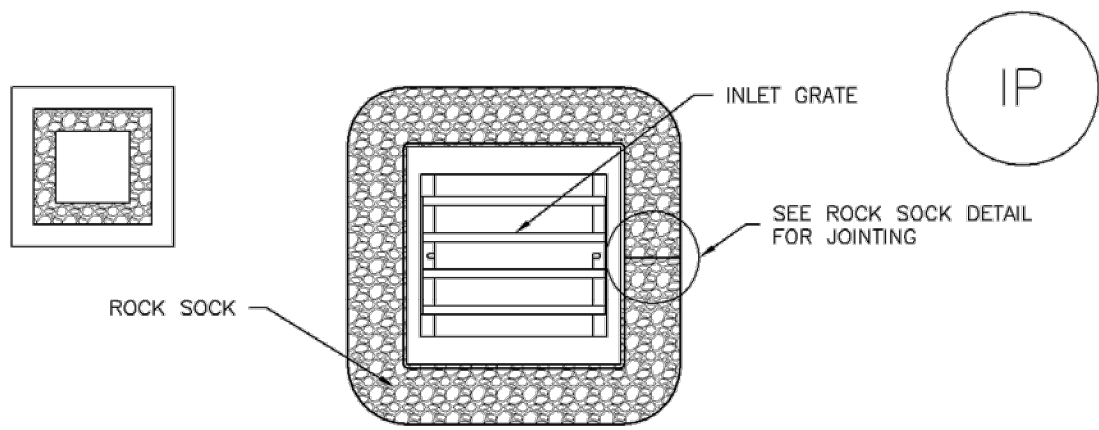
SEDIMENT CONTROL LOG MAINTENANCE NOTES:

1. THE SEDIMENT CONTROL LOGS SHALL BE INSPECTED DAILY, DURING AND AFTER ANY STORM EVENT, AND REPAIRED OR HAVE ANY UPSTREAM SEDIMENT REMOVED.
2. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN 1/2 THE HEIGHT OF THE CREST OF LOG.
3. ALL SEDIMENT CONTROL LOGS SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE ACCEPTABLY STABILIZED.



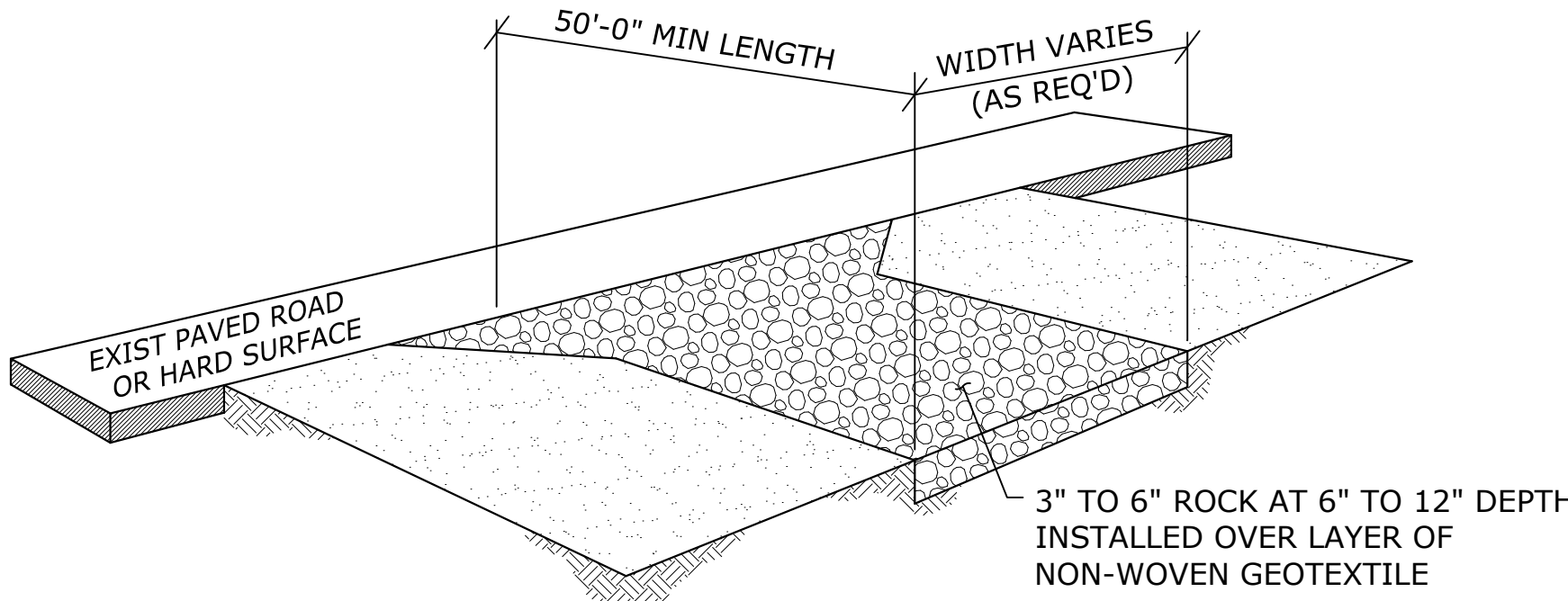
SEDIMENT CONTROL LOG INSTALLATION NOTES:

1. SEE PLAN VIEW FOR LOCATION AND EXTENT OF SEDIMENT CONTROL LOGS.
2. SEDIMENT CONTROL LOGS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES AND AS REQUIRED DURING CONSTRUCTION.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
4. NOT FOR USE IN CONCENTRATED FLOW AREAS.
5. THE SEDIMENT CONTROL LOG SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 2\"/>



IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

- ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES
1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
 2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

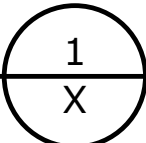


NOTES:

1. VEHICLE TRACKING CONTROL PADS SHALL BE INSTALLED AT ALL INGRESS/EGRESS POINTS WHERE VEHICULAR ACCESS TRANSITIONS FROM PAVED SURFACES TO DISTURBED SURFACES.
2. THE VTC PAD SHALL CONSIST OF HARD, ANGULAR, DENSE, AND DURABLE STONE. ROUNDED STONE, BOULDERS, RECYCLED ASPHALT, AND RECYCLED CONCRETE ARE NOT ACCEPTABLE.
3. ANY CRACKED OR DAMAGED CURB AND/OR GUTTER SHALL BE REPLACED BY THE CONTRACTOR.
4. PAD WILL BE REPAIRED AND REFRESHED AS NEEDED TO MAINTAIN FUNCTION AND INTEGRITY.
5. VTC PADS SHALL BE INSTALLED AT ALL CONCRETE WASHOUT AREAS AND AT STABILIZED STAGING/STORAGE AREAS.

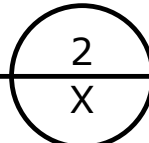
SEDIMENT CONTROL LOGS

SCALE: NTS



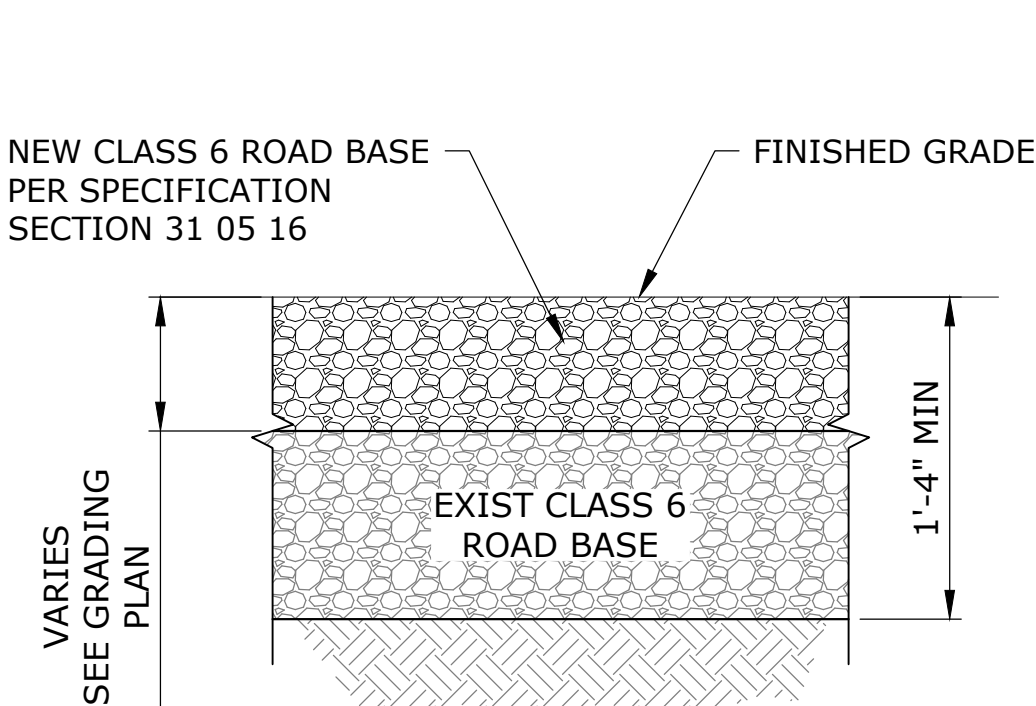
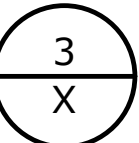
STORM DRAIN INLET PROTECTION

SCALE: NTS



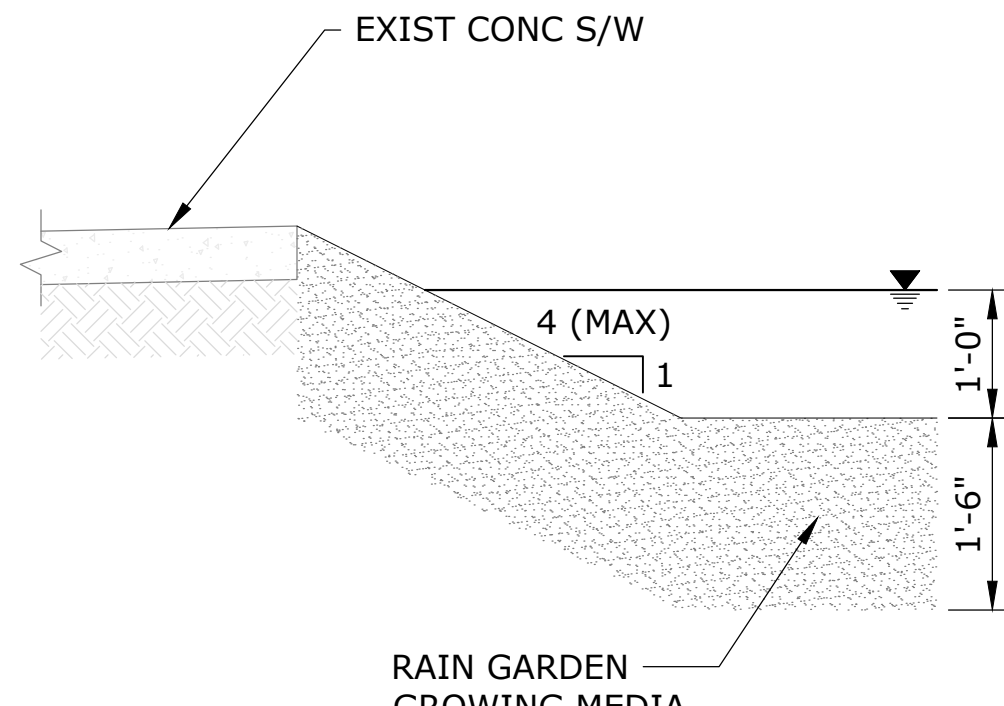
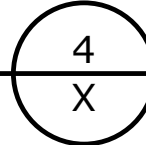
VEHICLE TRACKING CONTROL

SCALE: NTS

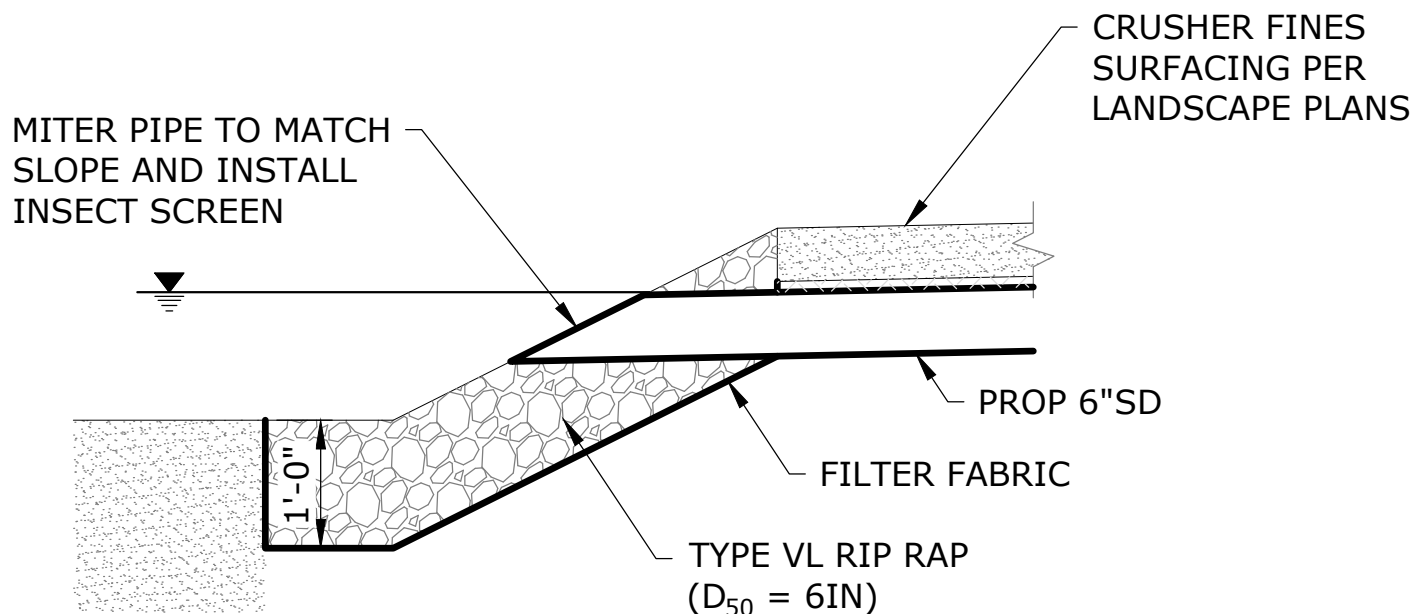


FIRE ACCESS ROAD BASE SECTION

SCALE: NTS

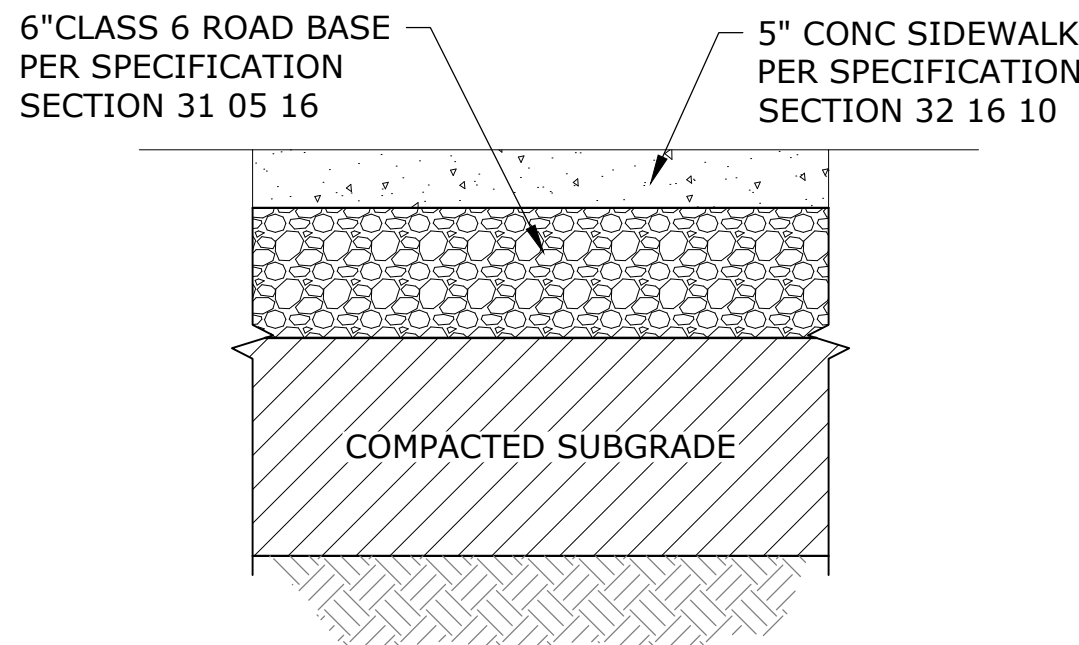


TYPICAL SECTION



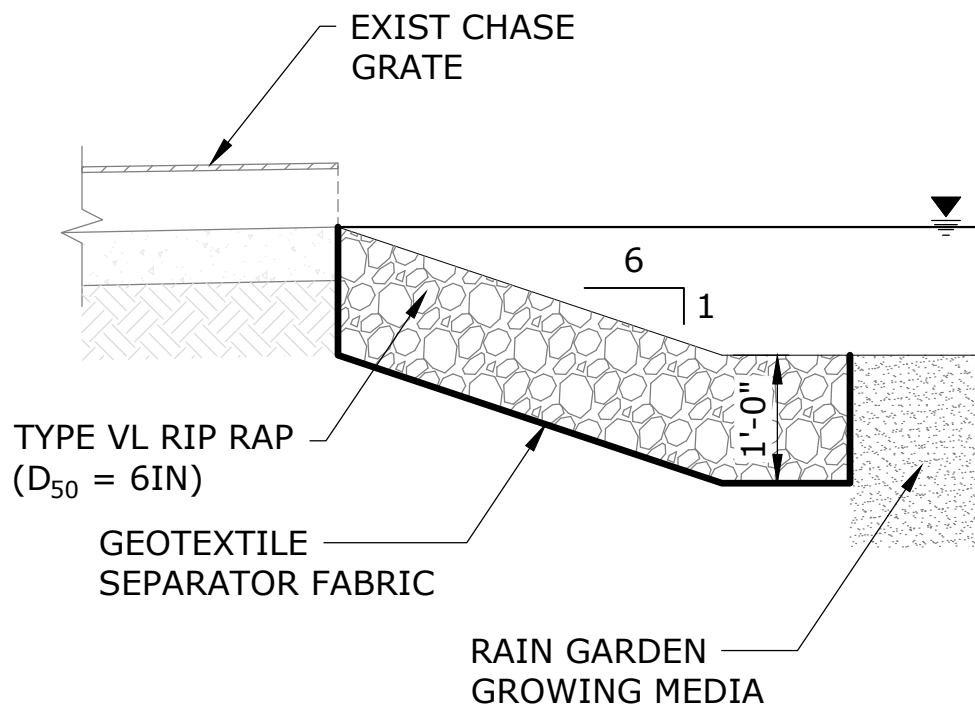
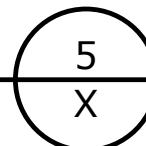
SECTION AT PIPE OUTLET

- NOTES:
1. BIORETENTION POND SHALL BE CONSTRUCTED PER SPECIFICATION SECTION 33 49 24 AND THE MILE HIGH FLOOD DISTRICT'S BMP FACT SHEET T-3.
 2. SEE LANDSCAPING PLANS FOR PLANTING WITHIN BIORETENTION POND.



SIDEWALK SECTION

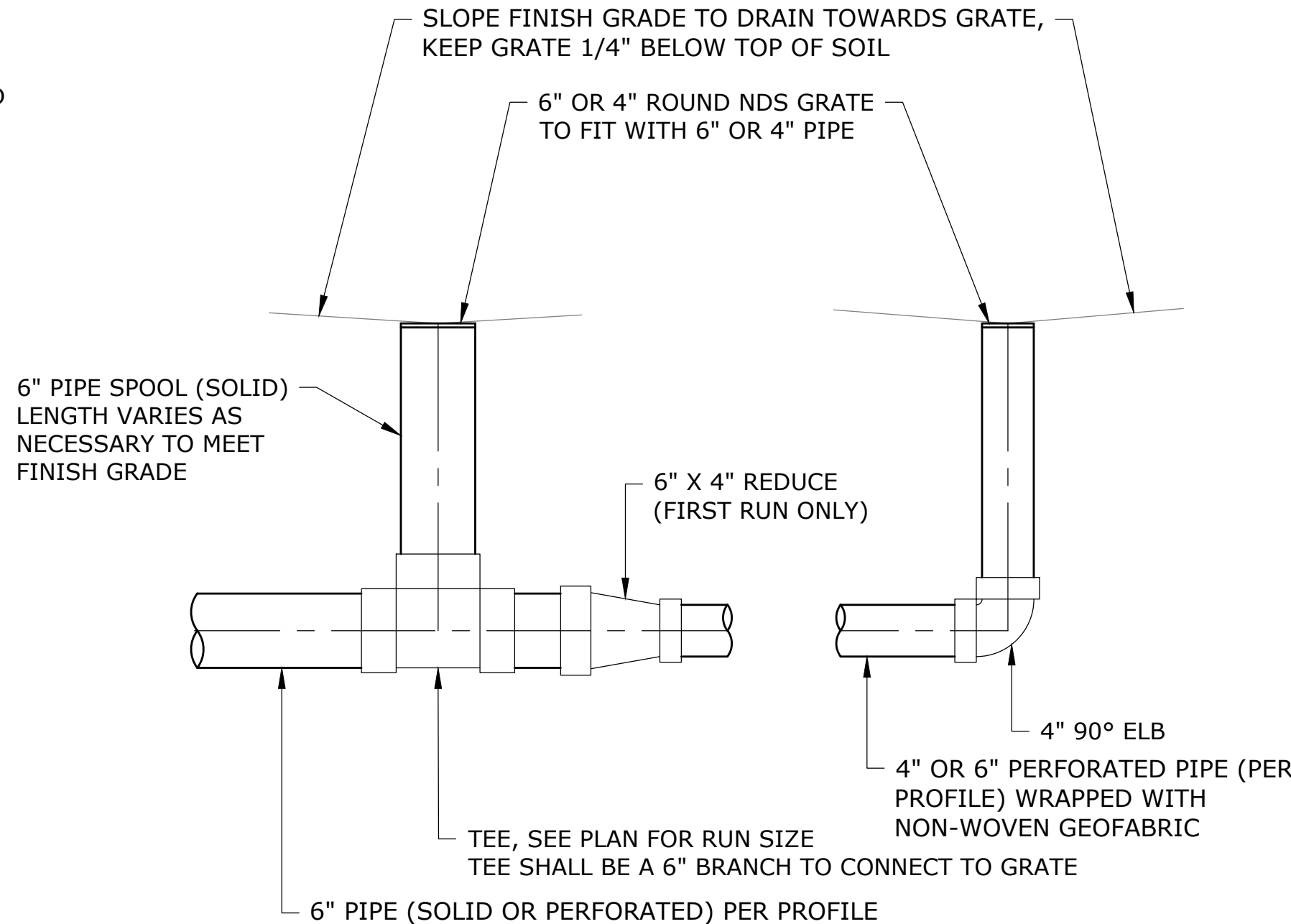
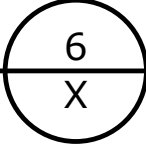
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SECTION AT OVERFLOW

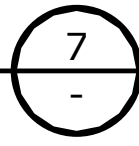
BIORETENTION POND

SCALE: NTS



AREA DRAIN

SCALE HORZ: NTS



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CIVIL SITE DETAILS

GENERAL NOTES

1. THESE PLANS SHALL NOT BE UTILIZED FOR CONSTRUCTION OR PERMITTING UNLESS STATED FOR SUCH USE IN THE TITLE BLOCK.

2. DRAWINGS ARE INTENDED TO BE PRINTED ON 24" X 36" PAPER. PRINTING THESE DRAWINGS AT A DIFFERENT SIZE WILL IMPACT THE SCALE. VERIFY THE GRAPHIC SCALE BEFORE REFERENCING ANY MEASUREMENTS ON THESE SHEETS. THE RECIPIENT OF THESE DRAWINGS SHALL BE RESPONSIBLE FOR ANY ERRORS RESULTING FROM INCORRECT PRINTING, COPYING, OR ANY OTHER CHANGES THAT ALTER THE SCALE OF THE DRAWINGS.

3. VERIFY ALL PLAN DIMENSIONS PRIOR TO START OF CONSTRUCTION. NOTIFY THE OWNER'S REPRESENTATIVE TO ADDRESS ANY QUESTIONS OR CLARIFY ANY DISCREPANCIES.

4. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.

5. SUBMIT A CHANGE ORDER FOR APPROVAL FOR ANY CHANGES TO WORK SCOPE RESULTING FROM FIELD CONDITIONS OR DIRECTION BY OWNER'S REPRESENTATIVE WHICH REQUIRE ADDITIONAL COST TO THE OWNER PRIOR TO PERFORMANCE OF WORK.

6. THE CONTRACTOR SHALL PROVIDE A STAKED LAYOUT OF ALL SITE IMPROVEMENTS FOR INSPECTION BY THE OWNER'S REPRESENTATIVE AND MAKE MODIFICATIONS AS REQUIRED. ALL LAYOUT INFORMATION IS AVAILABLE IN DIGITAL FORMAT FOR USE BY THE CONTRACTOR.

7. IF A GEOTECHNICAL SOILS REPORT IS NOT AVAILABLE AT THE TIME OF CONSTRUCTION, NORRIS DESIGN RECOMMENDS A REPORT BE AUTHORIZED BY THE OWNER AND THAT ALL RECOMMENDATIONS OF THE REPORT ARE FOLLOWED DURING CONSTRUCTION. THE CONTRACTOR SHALL USE THESE CONTRACT DOCUMENTS AS A BASIS FOR THE BID. IF THE OWNER ELECTS TO PROVIDE A GEOTECHNICAL REPORT, THE CONTRACTOR SHALL REVIEW THE REPORT AND SUBMIT AN APPROPRIATE CHANGE ORDER TO THE OWNER'S REPRESENTATIVE IF ADDITIONAL COSTS ARE REQUESTED.

8. CONTRACTOR SHALL CONFIRM THAT SITE CONDITIONS ARE SIMILAR TO THE PLANS, WITHIN TOLERANCES STATED IN THE CONTRACT DOCUMENTS, AND SATISFACTORY TO THE CONTRACTOR PRIOR TO START OF WORK. SHOULD SITE CONDITIONS BE DIFFERENT THAN REPRESENTED ON THE PLANS OR UNSATISFACTORY TO THE CONTRACTOR, THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND FURTHER DIRECTION.

9. CONTRACTOR IS RESPONSIBLE TO PAY FOR, AND OBTAIN, ANY REQUIRED APPLICATIONS, PERMITTING, LICENSES, INSPECTIONS AND METERS ASSOCIATED WITH WORK.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO ANY VIOLATIONS OR NON-CONFORMANCE WITH THE PLANS, SPECIFICATIONS, CONTRACT DOCUMENTS, JURISDICTIONAL CODES, AND REGULATORY AGENCIES.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL UTILITY LOCATES PRIOR TO ANY EXCAVATION. REFER TO ENGINEERING UTILITY PLANS FOR ALL PROPOSED UTILITY LOCATIONS AND DETAILS. NOTIFY OWNER'S REPRESENTATIVE IF EXISTING OR PROPOSED UTILITIES INTERFERE WITH THE ABILITY TO PERFORM WORK.

12. UNLESS IDENTIFIED ON THE PLANS FOR DEMOLITION OR REMOVAL, THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT OR EXISTING LANDSCAPE, ADJACENT OR EXISTING PAVING, OR ANY PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION, ESTABLISHMENT OR DURING THE SPECIFIED MAINTENANCE PERIOD. ALL DAMAGES SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS AS DETERMINED BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL BE RESPONSIBLE FOR LOGGING ANY DAMAGES PRIOR TO START OF CONSTRUCTION AND DURING THE CONTRACT PERIOD.

13. ALL WORK SHALL BE CONFINED TO THE AREA WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS. ANY AREAS OR IMPROVEMENTS DISTURBED OUTSIDE THESE LIMITS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. IN THE EVENT THE CONTRACTOR REQUIRES A MODIFICATION TO THE CONSTRUCTION LIMITS, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER'S REPRESENTATIVE PRIOR TO ANY DISTURBANCE OUTSIDE OF THE LIMITS OF WORK.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE.

15. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN TO THE APPROPRIATE JURISDICTIONAL AGENCIES AND THE OWNER'S REPRESENTATIVE IF THEIR WORK AND OPERATIONS AFFECT OR IMPACT THE PUBLIC RIGHTS-OF-WAY. OBTAIN APPROVAL PRIOR TO ANY WORK WHICH AFFECTS OR IMPACTS THE PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THIS REQUIREMENT DURING THE CONTRACT PERIOD.

16. SIGHT TRIANGLES AND SIGHT LINES SHALL REMAIN UNOBSTRUCTED BY EQUIPMENT, CONSTRUCTION MATERIALS, PLANT MATERIAL OR ANY OTHER VISUAL OBSTACLE DURING THE CONTRACT PERIOD AND AT MATURITY OF PLANTS PER LOCAL JURISDICTIONAL REQUIREMENTS. NO PLANT MATERIAL OTHER THAN GROUND COVER IS ALLOWED TO BE PLANTED ADJACENT TO FIRE HYDRANTS AS STIPULATED BY JURISDICTIONAL REQUIREMENTS.
17. COORDINATE SITE ACCESS, STAGING, STORAGE AND CLEAN OUT AREAS WITH OWNER'S REPRESENTATIVE.

18. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY SAFETY FENCING AND BARRIERS AROUND ALL IMPROVEMENTS SUCH AS WALLS, PLAY STRUCTURES, EXCAVATIONS, ETC. ASSOCIATED WITH THEIR WORK UNTIL SUCH FACILITIES ARE COMPLETELY INSTALLED PER THE PLANS, SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.

19. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THEIR MATERIAL STOCK PILES AND WORK FROM VANDALISM, EROSION OR UNINTENDED DISTURBANCE DURING THE CONSTRUCTION PERIOD AND UNTIL FINAL ACCEPTANCE IS ISSUED.

20. THE CONTRACTOR SHALL KNOW, UNDERSTAND AND ABIDE BY ANY STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ASSOCIATED WITH THE SITE. IF A STORM WATER POLLUTION PREVENTION PLAN IS NOT PROVIDED BY THE OWNER'S REPRESENTATIVE, REQUEST A COPY BEFORE PERFORMANCE OF ANY SITE WORK.

21. MAINTAIN ANY STORM WATER MANAGEMENT FACILITIES THAT EXIST ON SITE FOR FULL FUNCTIONALITY. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ANY NEW STORM WATER MANAGEMENT FACILITIES THAT ARE IDENTIFIED IN THE SCOPE OF WORK TO FULL FUNCTIONALITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER FOR FAILURE TO MAINTAIN STORM WATER MANAGEMENT FACILITIES DURING THE CONTRACT PERIOD.

22. THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM EXITING THE SITE OR ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION OR CONSTRUCTION OPERATIONS THAT ARE PART OF THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THESE REQUIREMENTS DURING THEIR CONTRACTED COURSE OF WORK.

23. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREVENT ANY IMPACTS TO ADJACENT WATERWAYS, WETLANDS, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS RESULTING FROM WORK DONE AS PART OF THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THESE STANDARDS DURING THEIR CONTRACTED COURSE OF WORK.

24. THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL ENSURE THAT ALL LOADS OF CONSTRUCTION MATERIAL IMPORTED TO OR EXPORTED FROM THE PROJECT SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF MATERIAL DURING TRANSPORT. TRANSPORTATION METHODS ON PUBLIC RIGHT-OF WAYS SHALL CONFORM TO JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES OR PENALTIES ASSESSED TO THE OWNER RELATING TO THESE REQUIREMENTS.

25. THE CLEANING OF EQUIPMENT IS PROHIBITED AT THE JOB SITE UNLESS AUTHORIZED BY THE OWNER'S REPRESENTATIVE IN A DESIGNATED AREA. THE DISCHARGE OF WATER, WASTE CONCRETE, POLLUTANTS, OR OTHER MATERIALS SHALL ONLY OCCUR IN AREAS DESIGNED FOR SUCH USE AND APPROVED BY THE OWNER'S REPRESENTATIVE.

26. THE CLEANING OF CONCRETE EQUIPMENT IS PROHIBITED AT THE JOB SITE EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE IN THE STORM SEWER IS PROHIBITED.

27. OPEN SPACE SWALES: IF SWALES ARE EXISTING ON SITE AND ARE NOT INTENDED TO BE MODIFIED AS PART OF THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE CONVEYANCE OF WATER WITHIN THE SWALES DURING THE CONTRACT PERIOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DIVERSION OR PUMPING OF WATER IF REQUIRED TO COMPLETE WORK. ANY SWALES DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED/RESTORED TO THEIR ORIGINAL CONDITION. IF THE SWALE NEEDS TO BE DISTURBED OR MODIFIED FOR ANY REASON, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO DISTURBANCE.

28. DETENTION AND WATER QUALITY PONDS: IF DETENTION PONDS AND WATER QUALITY PONDS ARE EXISTING ON SITE AND ARE NOT INTENDED TO BE MODIFIED AS PART OF THE PLANS, THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE PONDS, DRAINAGE STRUCTURES AND SPILLWAYS DURING CONSTRUCTION. ALL PONDS, DRAINAGE STRUCTURES AND SPILLWAYS SHALL BE MAINTAINED IN OPERABLE CONDITIONS AT ALL TIMES. ANY POND OR SPILLWAY AREAS DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED/RESTORED TO THEIR ORIGINAL CONDITION. IF THE POND NEEDS TO BE DISTURBED OR MODIFIED FOR ANY REASON, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO DISTURBANCE.

29. LOCAL, STATE AND FEDERAL JURISDICTIONAL REQUIREMENTS, RESTRICTIONS OR PROCEDURES SHALL SUPERSEDE THESE PLANS, NOTES AND SPECIFICATIONS WHEN MORE STRINGENT. NOTIFY THE OWNER'S REPRESENTATIVE IF CONFLICTS OCCUR.

LANDSCAPE NOTES

1. THE CONTRACTOR SHALL FOLLOW THE LANDSCAPE PLANS AND SPECIFICATIONS AS CLOSELY AS POSSIBLE. ANY SUBSTITUTION OR ALTERATION SHALL NOT BE ALLOWED WITHOUT APPROVAL OF THE OWNER'S REPRESENTATIVE. OVERALL PLANT QUANTITY AND QUALITY SHALL BE CONSISTENT WITH THE PLANS.

2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES. GRAPHIC QUANTITIES TAKES PRECEDENCE OVER WRITTEN QUANTITIES.

3. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND TAG ALL PLANT MATERIAL PRIOR TO SHIPPING TO THE SITE. IN ALL CASES, THE OWNER'S REPRESENTATIVE MAY REJECT PLANT MATERIAL AT THE SITE IF MATERIAL IS DAMAGED, DISEASED, OR DECLINING IN HEALTH AT THE TIME OF ONSITE INSPECTIONS OR IF THE PLANT MATERIAL DOES NOT MEET THE MINIMUM SPECIFIED STANDARD IDENTIFIED ON THE PLANS AND IN THE SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL MATERIALS AND PRODUCTS PRIOR TO INSTALLATION.

4. THE OWNER'S REPRESENTATIVE MAY ELECT TO UPSIZE PLANT MATERIAL AT THEIR DISCRETION BASED ON SELECTION, AVAILABILITY, OR TO ENHANCE SPECIFIC AREAS OF THE PROJECT. THE CONTRACTOR SHALL VERIFY PLANT MATERIAL SIZES WITH OWNER'S REPRESENTATIVE PRIOR TO PURCHASING, SHIPPING OR STOCKING OF PLANT MATERIALS. SUBMIT CHANGE ORDER REQUEST TO OWNER'S REPRESENTATIVE FOR APPROVAL IF ADDITIONAL COST IS REQUESTED BY THE CONTRACTOR PRIOR TO INSTALLATION. RE-STOCKING CHARGES WILL NOT BE APPROVED IF THE CONTRACTOR FAILS TO SUBMIT A REQUEST FOR MATERIAL CHANGES.

5. THE CONTRACTOR SHALL WARRANTY ALL CONTRACTED WORK AND MATERIALS FOR A PERIOD OF YEAR AFTER SUBSTANTIAL COMPLETION HAS BEEN ISSUED BY THE OWNER'S REPRESENTATIVE FOR THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR SPECIFICATIONS.

6. REFER TO IRRIGATION PLANS FOR LIMITS AND TYPES OF IRRIGATION DESIGNED FOR THE LANDSCAPE. IN NO CASE SHALL IRRIGATION BE EMITTED WITHIN THE MINIMUM DISTANCE FROM BUILDING OR WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT. ALL IRRIGATION DISTRIBUTION LINES, HEADS AND EMITTERS SHALL BE KEPT OUTSIDE THE MINIMUM DISTANCE AWAY FROM ALL BUILDING AND WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT.

7. LANDSCAPE MATERIAL LOCATIONS SHALL HAVE PRECEDENCE OVER IRRIGATION MAINLINE AND LATERAL LOCATIONS. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.

8. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE EXISTS IN ALL LANDSCAPE AREAS. SURFACE DRAINAGE ON LANDSCAPE AREAS SHALL NOT FLOW TOWARD STRUCTURES AND FOUNDATIONS. MAINTAIN SLOPE AWAY FROM FOUNDATIONS PER THE GEOTECHNICAL REPORT RECOMMENDATIONS. ALL LANDSCAPE AREAS BETWEEN WALKS AND CURBS SHALL DRAIN FREELY TO THE CURB UNLESS OTHERWISE IDENTIFIED ON THE GRADING PLAN. IN NO CASE SHALL THE GRADE, TURF THATCH, OR OTHER LANDSCAPE MATERIALS DAM WATER AGAINST WALKS. MINIMUM SLOPES ON LANDSCAPE AREAS SHALL BE 2%; MAXIMUM SLOPE SHALL BE 25% UNLESS SPECIFICALLY IDENTIFIED ON THE PLANS OR APPROVED BY THE OWNER'S REPRESENTATIVE.

9. PRIOR TO INSTALLATION OF PLANT MATERIALS, AREAS THAT HAVE BEEN COMPACTED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE THOROUGHLY LOOSENEED TO A DEPTH OF 8" - 12" AND AMENDED PER SPECIFICATIONS.

10. ALL LANDSCAPED AREAS ARE TO RECEIVE ORGANIC SOIL PREPARATION AS NOTED IN THE TECHNICAL SPECIFICATIONS.

11. TREES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DRAINAGE AREAS, OR UTILITY EASEMENTS. CONTACT OWNER'S REPRESENTATIVE FOR RELOCATION OF PLANTS IN QUESTIONABLE AREAS PRIOR TO INSTALLATION.
12. THE CENTER OF EVERGREEN TREES SHALL NOT BE PLACED CLOSER THAN 8' AND THE CENTER OF ORNAMENTAL TREES CLOSER THAN 6' FROM A SIDEWALK, STREET OR DRIVE LANE. EVERGREEN TREES SHALL NOT BE LOCATED ANY CLOSER THAN 15' FROM IRRIGATION ROTOR HEADS. NOTIFY OWNER'S REPRESENTATIVE IF TREE LOCATIONS CONFLICT WITH THESE STANDARDS FOR FURTHER DIRECTION.

13. ALL EVERGREEN TREES SHALL BE FULLY BRANCHED TO THE GROUND AND SHALL NOT EXHIBIT SIGNS OF ACCELERATED GROWTH AS DETERMINED BY THE OWNER'S REPRESENTATIVE.

14. ALL TREES ARE TO BE STAKED AND GUYED PER DETAILS FOR A PERIOD OF 3 YEARS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STAKES AT THE END OF 3 YEARS FROM ACCEPTANCE OF LANDSCAPE INSTALLATION BY THE OWNER'S REPRESENTATIVE. OBTAIN APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO REMOVAL.

15. ALL TREES INSTALLED ABOVE RETAINING WALLS UTILIZING GEO-GRID MUST BE HAND DUG TO PROTECT GEO-GRID. IF GEO-GRID MUST BE CUT TO INSTALL TREES, APPROVAL MUST BE GIVEN BY OWNER'S REPRESENTATIVE PRIOR TO DOING WORK.

16. SHRUB, GROUND COVER AND PERENNIAL BEDS ARE TO BE CONTAINED BY PLASTIC EDGER. EDGER IS NOT REQUIRED WHEN ADJACENT TO CURBS, WALLS, WALKS OR SOLID FENCES WITHIN 3' OF PRE-MULCHED FINAL GRADE. EDGER SHALL NOT BE REQUIRED TO SEPARATE MULCH TYPES UNLESS SPECIFIED ON THE PLANS.

17. ALL SHRUB BEDS ARE TO BE MULCHED LANDSCAPE MULCH OVER GEOTEXTILE WEED CONTROL FABRIC AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS OR MATERIALS SCHEDULE. ALL GROUND COVER AND PERENNIAL FLOWER BEDS SHALL BE MULCHED WITH LANDSCAPE MULCH AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS OR MATERIALS SCHEDULE. NO WEED CONTROL FABRIC IS REQUIRED IN GROUND COVER OR PERENNIAL AREAS.

18. AT SEED AREA BOUNDARIES ADJACENT TO EXISTING NATIVE AREAS, OVERLAP ABUTTING NATIVE AREAS BY THE FULL WIDTH OF THE SEEDER.

19. EXISTING TURF AREAS THAT ARE DISTURBED DURING CONSTRUCTION, ESTABLISHMENT AND THE MAINTENANCE PERIOD SHALL BE RESTORED WITH NEW SOD TO MATCH EXISTING TURF SPECIES. DISTURBED NATIVE AREAS WHICH ARE TO REMAIN SHALL BE OVER SEEDED AND RESTORED WITH SPECIFIED SEED MIX.

20. CONTRACTOR SHALL OVER SEED ALL MAINTENANCE OR SERVICE ACCESS BENCHES AND ROADS WITH SPECIFIED SEED MIX UNLESS OTHERWISE NOTED ON THE PLANS.

21. ALL SEEDED SLOPES EXCEEDING 25% IN GRADE (4:1) SHALL RECEIVE EROSION CONTROL BLANKETS. PRIOR TO INSTALLATION, NOTIFY OWNER'S REPRESENTATIVE FOR APPROVAL OF LOCATION AND ANY ADDITIONAL COST IF A CHANGE ORDER IS NECESSARY.

22. WHEN COMPLETE, ALL GRADES SHALL BE WITHIN +/- 1/8" OF FINISHED GRADES AS SHOWN ON THE PLANS.

23. SOFT SURFACE TRAILS NEXT TO MANICURED TURF OR SHRUB BEDS SHALL BE CONTAINED WITH EDGER SPECIFIED IN PLANS OR APPROVED EQUAL.

24. PRIOR TO THE PLACEMENT OF MULCH AND WEED FABRIC, A GRANULAR, PRE-EMERGENT, WEED CONTROL AGENT SHALL BE ADDED TO ALL PLANTING BEDS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION, EXCEPT AROUND ORNAMENTAL GRASSES.

25. THE CONTRACTOR IS EXPECTED TO KNOW AND UNDERSTAND THE TOWN AND COUNTY SPECIFICATIONS FOR LANDSCAPE AND IRRIGATION. IN CASES OF DISCREPANCIES THE HIGHER OF THE TWO STANDARDS SHALL HAVE PRECEDENCE.

26. THE DEVELOPER, HIS SUCCESSORS AND ASSIGNS SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND REPLACEMENT OF ALL IMPROVEMENTS SHOWN OR INDICATED ON THE APPROVED LANDSCAPE PLAN ON FILE IN THE PLANNING DEPARTMENT.

LAYOUT NOTES

1. WRITTEN DIMENSIONS WILL TAKE PRECEDENCE OVER SCALED DIMENSIONS.

2. SHOULD SITE CONDITIONS BE DIFFERENT THAN WHAT IS INDICATED ON THE DRAWINGS CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY FOR CLARIFICATION.

3. CURVED WALKS AND CURB EDGES ARE INTENDED TO BE CONSTRUCTED WITH SMOOTH FLOWING CURVES. ANYTHING OTHER THAN SMOOTH FLOWING CURVES WILL BE REJECTED.

4. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK.

5. THE CONTRACTOR SHALL PROVIDE A STAKED LAYOUT OF ALL SITE IMPROVEMENTS FOR INSPECTION BY THE OWNER'S REPRESENTATIVE AND MAKE MODIFICATIONS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.

6. THE CONTRACTOR SHALL INSTALL SLEEVING FOR IRRIGATION IMPROVEMENTS PRIOR TO INSTALLING CONCRETE FLATWORK. REFER TO IRRIGATION PLANS.

7. LAYOUT WALKS, SCORE JOINTS AND PAVING PATTERNS AS CLOSELY AS POSSIBLE TO PLANS, DETAILS, AND SPECIFICATIONS. DO NOT DEVIATE FROM PLANS UNLESS SPECIFIC APPROVAL IS OBTAINED FROM THE OWNER'S REPRESENTATIVE.

8. ALL WORK SHALL BE CONFINED TO THE AREA WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS. ANY AREAS OR IMPROVEMENTS DISTURBED OUTSIDE THESE LIMITS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. IN THE EVENT THE CONTRACTOR REQUIRES A MODIFICATION TO THE CONSTRUCTION LIMITS, WRITTEN PERMISSION MUST BE OBTAINED FROM THE LANDSCAPE ARCHITECT PRIOR TO ANY DISTURBANCE OUTSIDE OF THE LIMITS OF WORK. SEE TECHNICAL SPECIFICATIONS.

9. CONTRACTOR IS RESPONSIBLE FOR SUPERVISING ALL SAFETY SURFACING AND PAVEMENT DURING THE CURING PROCESS.

SHEET LIST

L-001	LANDSCAPE NOTES
L-002	LANDSCAPE SCHEDULES
L-003	MATERIAL AND AMENITY SCHEDULES
L-101	LANDSCAPE PLAN
L-401	PLANTING ENLARGEMENT
L-402	PLANTING ENLARGEMENT
L-501	LANDSCAPE DETAILS
LS-101	HARDSCAPE PLAN
LS-501	HARDSCAPE DETAILS
LS-502	HARDSCAPE DETAILS

NORRIS DESIGN

Planning | Landscape Architecture | Branding

409 Main Street

Suite 207

P.O. Box 2320

Frisco, CO 80443

P 970.485.4478

www.norris-design.com

FRISCO BAY MARINA

0059-01-3124 FRISCO MARINA PHASE 2

277 MARINA ROAD, FRISCO, COLORADO

CONSTRUCTION BID DOCUMENTS

OWNER:

TOWN OF FRISCO

1 EAST MAIN STREET

FRISCO, CO 80443

970.668.5276

DATE:

01/17/22: 100 SD

02/17/22: 100 DD

04/15/22: 90 CD

05/05/22: 90 CD

09/09/22: DRAFT BID

09/19/22: BID DOCS

SHEET TITLE:








LANDSCAPE

NOTES

L-001

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DRAWN BY: AR

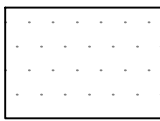
PLANT SCHEDULE

DECIDUOUS TREES	CODE	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	NOTES	PERENNIALS	CODE	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	NOTES
	PO AC	POPULUS TREMULOIDES	QUAKING ASPEN	B & B	1.5" CAL	MULTI-STE		AC PA	ACHILLEA MILLEFOLIUM 'PAPRIKA'	PAPRIKA COMMON YARROW	CONT.	#SP5	
	PO TR	POPULUS TREMULOIDES	QUAKING ASPEN	B & B	2" CAL			AC MO	ACHILLEA X 'MOONSHINE'	MOONSHINE YARROW	CONT.	#SP5	
								AL AL	ALCHEMILLA ALPINA	ALPINE LADY'S MANTLE	CONT.	#SP5	
	AM SO	AMELANCHIER ALNIFOLIA 'STANDING OVATION' TM	STANDING OVATION SERVICEBERRY	CONT.	#5			AQ CA	AQUILEGIA CAERULEA	ROCKY MOUNTAIN COLUMBINE	CONT.	#SP5	
	CH AL	CHRYSOTHAMNUS NAUSEOSUS ALBICAULIS	TALL BLUE RABBITBRUSH	CONT.	#5			AR UV	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	CONT.	#SP5	
	CO AF	CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC FIRE DOGWOOD	CONT.	#5			AS AL	ASTER ALPINUS	ALPINE ASTER	CONT.	#SP5	
	JA AM	JAMESIA AMERICANA	WAXFLOWER	CONT.	#5			CA OL	CAMPANULA ROTUNDIFOLIA 'OLYMPICA'	OLYMPICA HAREBELL	CONT.	#SP5	
	MA RE	MAHONIA REPENS	CREEPING MAHONIA	CONT.	#1			CE TO	CERASTIUM TOMENTOSUM	SNOW IN SUMMER	CONT.	#SP5	
	PH MO	PHYSOCARPUS MONOGYNUS	MOUNTAIN NINEBARK	CONT.	#1			DE FO	DELPHINIUM X 'MAGIC FOUNTAINS'	MAGIC FOUNTAIN DELPHINIUM	CONT.	#SP5	
	PO MW	POTENTILLA FRUTICOSA 'MCKAY'S WHITE'	MCKAY'S WHITE BUSH CINQUEFOIL	CONT.	#1			DE BL	DELPHINIUM X 'BLACK KNIGHT'	BLACK KNIGHT DELPHINIUM	CONT.	#SP5	
	PO PB	POTENTILLA FRUTICOSA 'PINK BEAUTY'	PINK BEAUTY POTENTILLA	CONT.	#1			EC PU	ECHINACEA PURPUREA	PURPLE CONEFLOWER	CONT.	#SP5	
	PO KA	POTENTILLA FRUTICOSA 'KATHERINE DYKES'	KATHERINE DYKES BUSH CINQUEFOIL	CONT.	#1			ES CA	ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	CONT.	#SP5	
	RO WO	ROSA WOODSII	MOUNTAIN ROSE	CONT.	#5			GA AR	GAILLARDIA ARISTATA	NATIVE BLANKET FLOWER	CONT.	#SP5	
	SA EX	SALIX EXIGUA	COYOTE WILLOW	CONT.	#5			LE SC	LEUCANTHEMUM X SUPERBUM 'SNOWCAP'	SNOWCAP SHASTA DAISY	CONT.	#SP5	
	SA PU	SALIX PURPUREA 'NANA'	DWARF ARCTIC WILLOW	CONT.	#5			LU PO	LUPINUS X 'POPSICLE BLUE'	POPSICLE BLUE LUPINE	CONT.	#SP5	
	AN PP	ANDROPOGON GERARDII PAWNEE	PAWNEE BIG BLUESTEM	CONT.	#1			ME IE	MERTENSIA LANCEOLATA	PRAIRIE BLUEBELLS	CONT.	#SP5	
	DE TU	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	CONT.	#1			PH BI	PHLOX BIFIDA	SNOWMASS PHLOX	CONT.	#SP5	
	FE EB	FESTUCA GLAUCA 'ELIJAH BLUE'	BLUE FESCUE	CONT.	#1			RU FU	RUDBECKIA FULGIDA 'GOLDSTRUM'	BLACK-EYED SUSAN	CONT.	#SP5	
								SE AJ	SEDUM X 'AUTUMN JOY'	AUTUMN JOY SEDUM	CONT.	#SP5	

TURF GRASS

COMMON NAME

BLACK BEAUTY FESCUE (OR APPROVED EQUAL)
SUPPLIER: GRAFF'S TURF FORT MORGAN, CO
<https://graffsturf.com/turfgrass/black-beauty-fescue/>

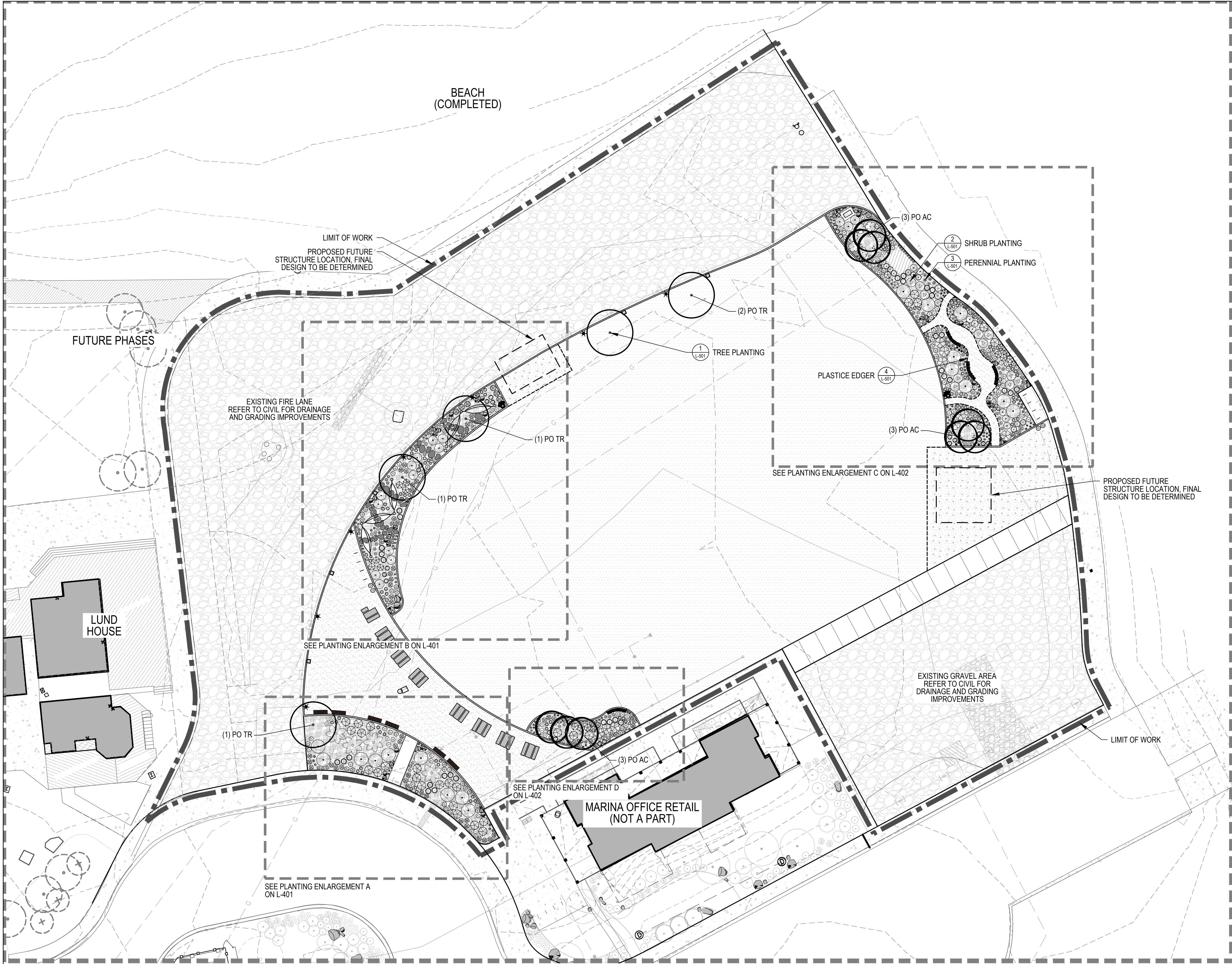


AMENITY SCHEDULE

ITEM	DESCRIPTION	MANUFACTURER	CONTACT	PRODUCT NAME	PRODUCT NUMBER	COLOR/FINISH	NOTES
[S-101]	TRASH AND RECYCLING RECEPTACLE	SITE PIECES	CONTACT: 800.484.0797 www.sitepieces.com	MONOLINE LITTER BIN	ML-LGLITTER-DL 27" X 14" X 42"H (36GAL)	BLACK POWDER COAT	SURFACE MOUNT ON CONCRETE PER MANUFACTURER SPECIFICATIONS. REFER TO DETAIL 1/LS-501 FOR SURFACE MOUNT IN CRUSHER FINES. REFER TO PLANS FOR LOCATION AND QUANTITY.
[S-102]	BIKE RACK	SITE PIECES	CONTACT: 800.484.0797 www.sitepieces.com	MONOLINE STANDARD BIKE ROAD	ML-STAND-19	BLACK POWDER COAT	SURFACE MOUNT ON CONCRETE PER MANUFACTURER SPECIFICATIONS. REFER TO DETAIL 1/LS-501 FOR SURFACE MOUNT IN CRUSHER FINES. REFER TO PLANS FOR LOCATION AND QUANTITY.
[S-103]	CURVED BENCH	DuMOR (OR APPROVED EQUAL)	CONTACT: 800.598.4018 sales@dumor.com	520 COLLECTION	R521-120-01 120" RADIUS, 96" BENCH	BLACK POWDER COAT, ANTIQUE MAHOGANY TEXTURED WOOD GRAIN RECYCLED PLASTIC	SURFACE MOUNT ON CONCRETE PER MANUFACTURER SPECIFICATIONS. REFER TO DETAIL 1/LS-501 FOR SURFACE MOUNT IN CRUSHER FINES. REFER TO PLANS FOR LOCATION AND QUANTITY.
[S-104]	STRAIGHT BENCH	DuMOR (OR APPROVED EQUAL)	CONTACT: 800.598.4018 sales@dumor.com	520 COLLECTION	521-60 BACKLESS 72" BENCH	BLACK POWDER COAT, ANTIQUE MAHOGANY TEXTURED WOOD GRAIN RECYCLED PLASTIC	SURFACE MOUNT ON CONCRETE PER MANUFACTURER SPECIFICATIONS. REFER TO DETAIL 1/LS-501 FOR SURFACE MOUNT IN CRUSHER FINES. REFER TO PLANS FOR LOCATION AND QUANTITY.
[S-105]	PICNIC TABLES	DuMOR (OR APPROVED EQUAL)	CONTACT: 800.598.4018 sales@dumor.com	520 COLLECTION	525-60TXMS-5 FREESTANDING TABLE SET & ADA ACCESSIBLE 525-663TXMS-5 FREESTANDING	BLACK POWDER COAT, ANTIQUE MAHOGANY TEXTURED WOOD GRAIN RECYCLED PLASTIC	LOCATE PER PLANS, ONE TABLE TO BE ADA ACCESSIBLE PER PLANS
[S-106]	PEDESTRIAN BOLLARD	FIRST LIGHT TECHNOLOGIES LTD (OR APPROVED EQUAL)	CONTACT: 844.279.8754 www.firstlighttechnologies.com	PLB SOLAR POWERED BOLLARD	6" x 35" BOLLARD, WARM WHITE 3000K LED, PLB TYPE 3 LIGHT DISTRIBUTION, LIGHT PROFILE 3	BLACK POWDER COAT	MOUNT PER MANUFACTURER'S SPECIFICATIONS
[S-107]	SIGNAGE POST	BY OWNER	CONTACT:	CUSTOM STREET LIGHT TO MATCH EXISTING TOWN STANDARD	CUSTOM	WOOD STAINED TO MATCH EXISTING STREET LIGHTS	TO BE INSTALLED BY OWNER. CONTRACTOR TO SUPPLY CONCRETE FOOTER PER DETAIL 1 / LS-502.
[S-108]	DOG BAGS	MUTT MITT (OR APPROVED EQUAL)	CONTACT: 800-697-6084 www.muttmitt.com	DOG WASTE STATION -BEST CHOICE	1005	SINGLES, GREEN STATION	INSTALL PER MANUFACTURER SPECIFICATIONS. REFER TO PLANS FOR LOCATION AND QUANTITY
NOTES	1. ALL SITE AMENITIES TO BE PROVIDED BY OWNER. 2. CONTRACTOR TO INSTALL ALL AMENITIES AS DETAILED IN THE PLANS OR PER MANUFACTURER SPECIFICATIONS.						

MATERIALS SCHEDULE

ITEM	DESCRIPTION	MANUFACTURER	CONTACT	PRODUCT NAME	SIZE / DIMENSIONS	COLOR/FINISH	NOTES
[M-101]	STANDARD CONCRETE	QUIKCRETE (OR APPROVED EQUAL)	N/A	N/A	REFER TO CIVIL PLANS FOR DETAILS	STANDARD GRAY MEDIUM BROOM FINISH	REFER TO CIVIL FOR DEPTH AND INSTALLATION DETAILS. BROOM FINISH SHALL BE PARALLEL WITH SLOPE TO ENSURE PROPER DRAINAGE
[M-102]	ENHANCED CONCRETE	QUIKCRETE (OR APPROVED EQUAL)	N/A	N/A	REFER TO CIVIL PLANS FOR DETAILS	DAVIS COLOR, LIGHT GRAY .5 LBS 8084 OR 2.5 LBS 860 PROLINE OLD GRANITE 48"X48" SEAMLESS STAMP	REFER TO CIVIL FOR DEPTH AND INSTALLATION DETAILS.
[M-103]	RECYCLED ASPHALT	PIONEER LANDSCAPE CENTERS	CONTACT: 866.600.0652 www.pioneersand.com	RECYCLED ASPHALT	3/4"	N/A	REFER TO DETAIL 3, SHEET LS-501
[M-104]	CRUSHER FINES	PIONEER LANDSCAPE CENTERS	CONTACT: 866.600.0652 www.pioneersand.com	BREEZE / MINUS	¾" MINUS	GREY	REFER TO DETAIL 3, SHEET LS-501
[M-105]	WOOD MULCH	PIONEER LANDSCAPE CENTERS	CONTACT: 866.600.0652 www.pioneersand.com	WASHINGTON CEDAR MULCH	N/A	WASHINGTON CEDAR MULCH	MINIMUM 3" DEPTH, INSTALL PER DETAILS AND SPECIFICATIONS
[M-106]	PLASTIC EDGER	PIONEER LANDSCAPE CENTERS	CONTACT: 866.600.0652 www.pioneersand.com	EPIC EDGE BENDA BOARD	2" x 6" x 16'	CARAMEL BROWN	REFER TO DETAIL 4, SHEET L-501
[M-107]	STEPPING STONES	SILOAM STONE, INC. (OR APPROVED EQUAL)	CONTACT: 719.275.4275	STANDARD PALLET	12-24" X 18-36" 1-3" THICK	SIENNA BUFF	REFER TO DETAIL 7, SHEET LS-501
[M-108]	BOULDERS	BY OWNER	CONTACT:	ROUND BOULDERS TO BE PROVIDED BY OWNER	2' SQ TO 4' SQ BOULDERS	EARTH TONES AND NATURAL GREY	REFER TO DETAIL 8, SHEET LS-501, LANDSCAPE ARCHITECT TO SELECT BOULDERS FROM TOWN STORAGE YARD FOR INSTALLATION ON SITE
NOTES	1. THE MANUFACTURERS AND PRODUCTS LISTED IN AMENITY SCHEDULE AND MATERIAL SCHEDULE ARE THE BASIS OF DESIGN FOR THIS PROJECT. IF A SUBSTITUTION IS SUGGESTED FOR ANY OF THE ABOVE MANUFACTURER DESCRIBED PRODUCTS, THOSE SUBSTITUTIONS WILL NEED TO BE SUBMITTED FOR REVIEW AND ACCEPTED BEFORE ORDERING AND INSTALLATION COMMENCES.						



LEGEND

EXISTING TREES TO REMOVE

EXISTING TREES TO REMAIN

PROPOSED TREES

S-102 BIKE RACKS

S-103 CURVED BENCH

S-104 STRAIGHT BENCH

S-105 PICNIC TABLE

S-106 PEDESTRIAN BOLLARD

S-107 SIGNAGE POST

S-108 DOG BAGS

HAMMOCKS, DETAIL 2/LS-501

M-107 STEPPING STONES, DETAIL 7, LS-501

M-108 LANDSCAPE BOULDERS, DETAIL 8, LS-501

MATCH LINE

LIMIT OF WORK

LOT LINE

6" CONCRETE EDGER, DETAIL 6/LS-501

FUTURE PROPOSED BUILDING

M-106 PLASTIC EDGER, DETAIL 4/L-501

M-101 STANDARD CONCRETE, DETAIL 5/LS-501

M-102 ENHANCED CONCRETE

M-103 RECYCLED ASPHALT

M-104 CRUSHER FINES

M-105 WOOD MULCH

TURF LAWN, L-002

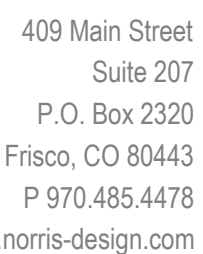
FIRE LANE MATERIAL TO BE REPLACED AS NECESSARY

811

NORTH

0 10 20 40

SCALE 1" = 20'



FRISCO BAY MARINA
0059-01-3124 FRISCO MARINA PHASE 2
2777 MARINA ROAD, FRISCO, COLORADO
CONSTRUCTION BID DOCUMENTS

OWNER:

TOWN OF FRISCO
1 EAST MAIN STREET
FRISCO, CO 80443
970.668.5276

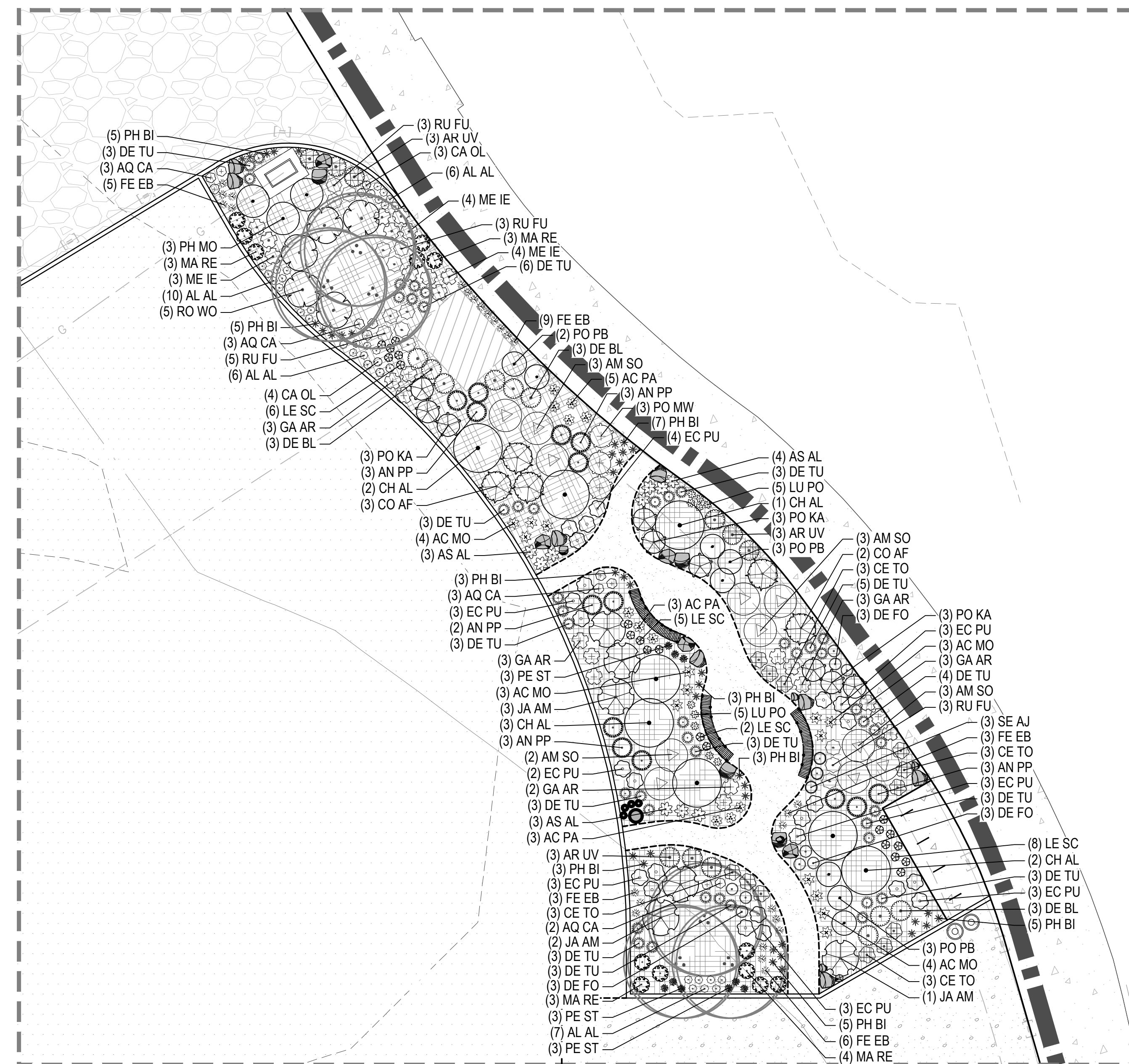
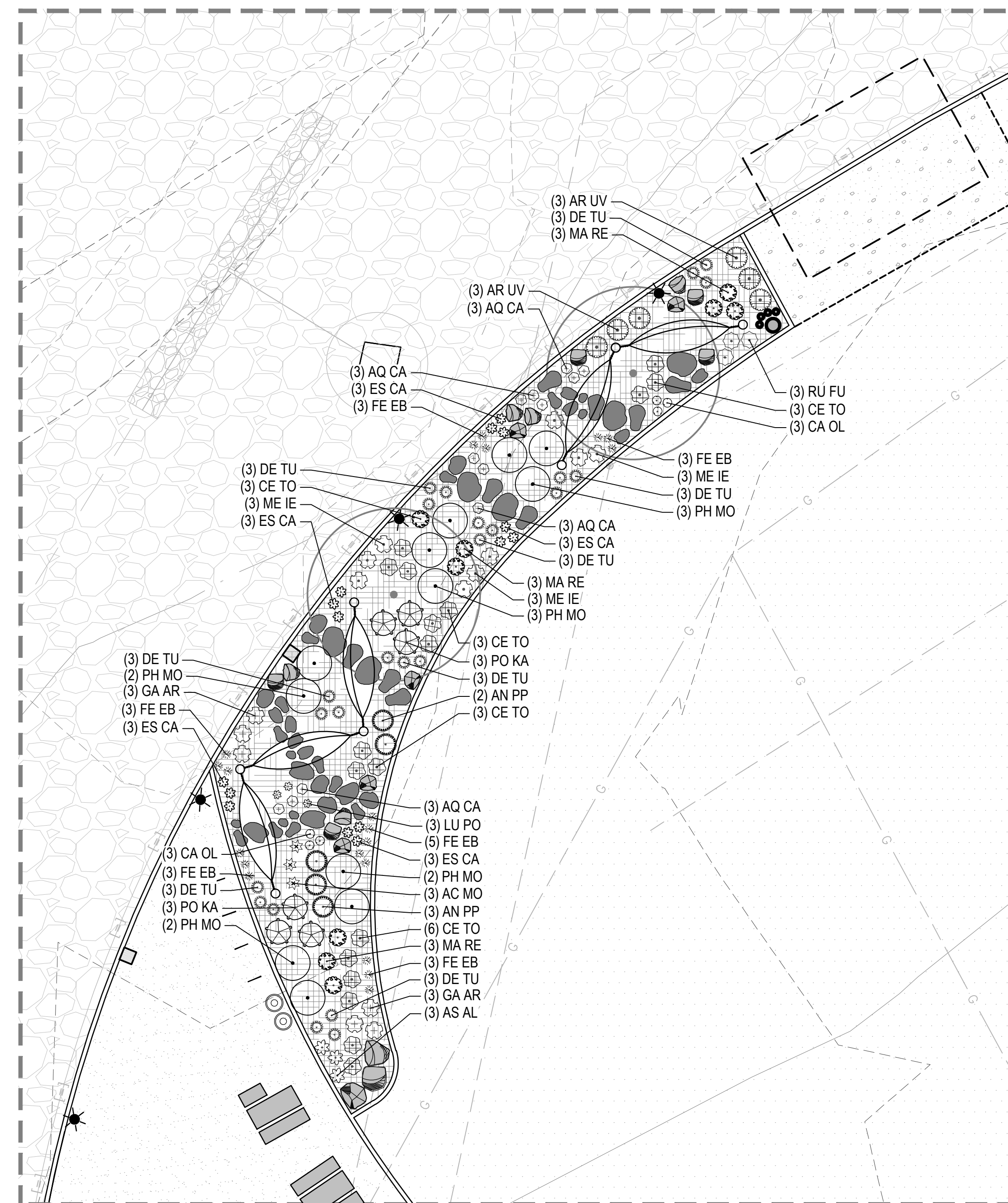
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09/19/22: BID DOCS

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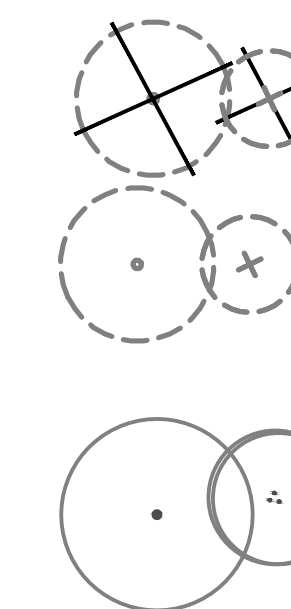
PLANTING ENLARGEMENTS

L-401



ENLARGEMENT B

LEGEND



EXISTING TREES TO REMOVE

EXISTING TREES TO REMAIN

PROPOSED TREES

S-102 BIKE RACKS

S-103 CURVED BENCH

S-104 STRAIGHT BENCH

S-105 PICNIC TABLE

S-106 PEDESTRIAN BOLLARD

S-107 SIGNAGE POST

S-108 DOG BAGS

HAMMOCKS, DETAIL 2/LS-501

M-107 STEPPING STONES, DETAIL 7,
LS-501

M-108 LANDSCAPE BOULDERS, DETAIL 8,
LS-501

MATCH LINE

LIMIT OF WORK

LOT LINE

6" CONCRETE EDGER, DETAIL
6/LS-501

FUTURE PROPOSED BUILDING

M-101 STANDARD CONCRETE, DETAIL
5/LS-501

M-102 ENHANCED CONCRETE

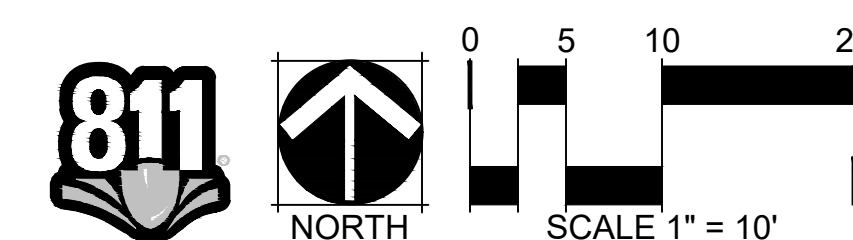
M-103 RECYCLED ASPHALT

M-104 CRUSHER FINES

M-105 WOOD MULCH

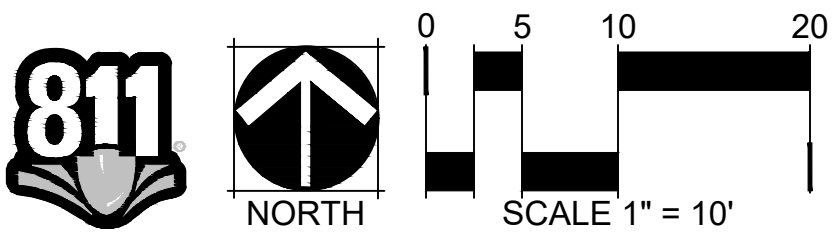
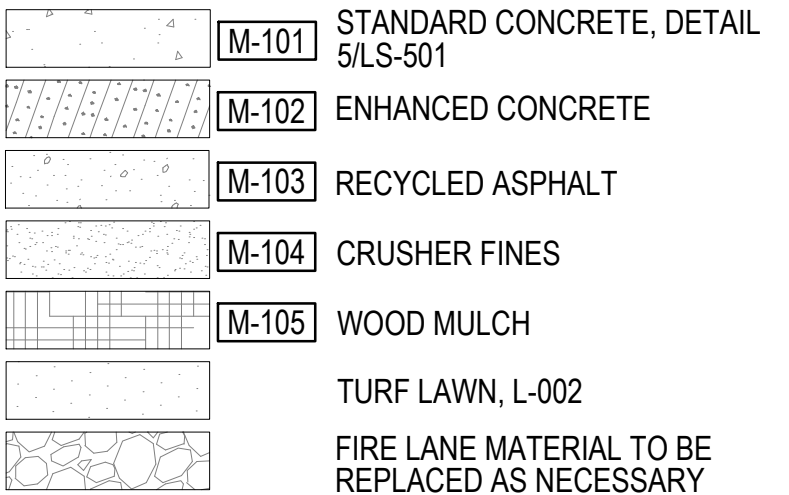
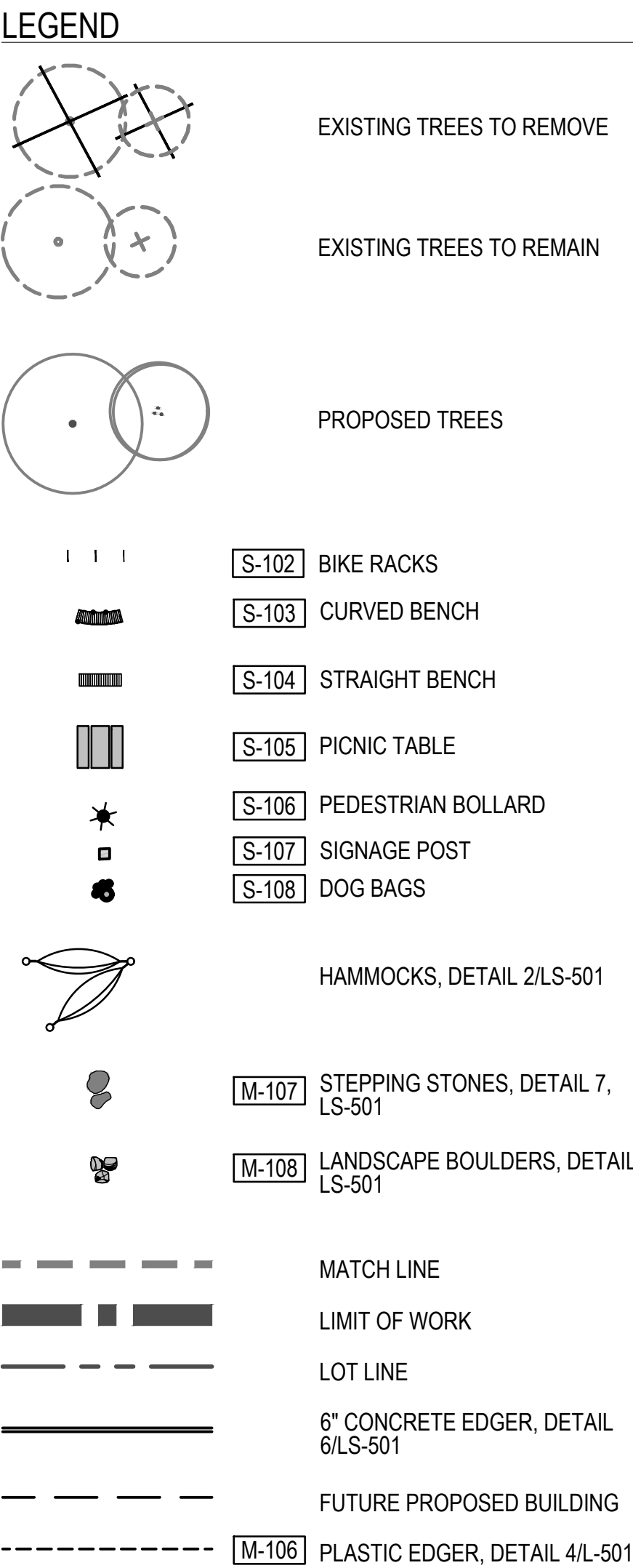
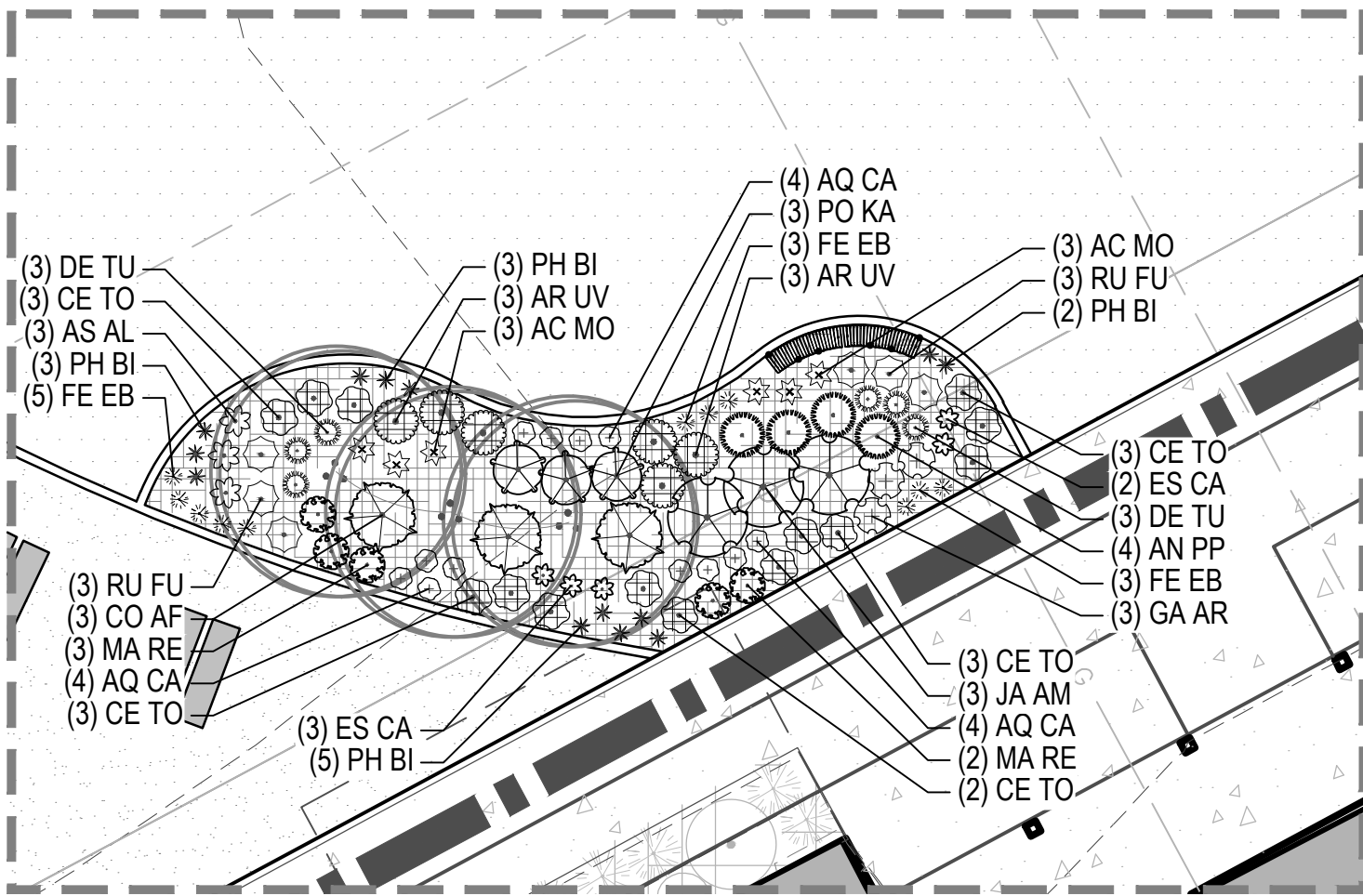
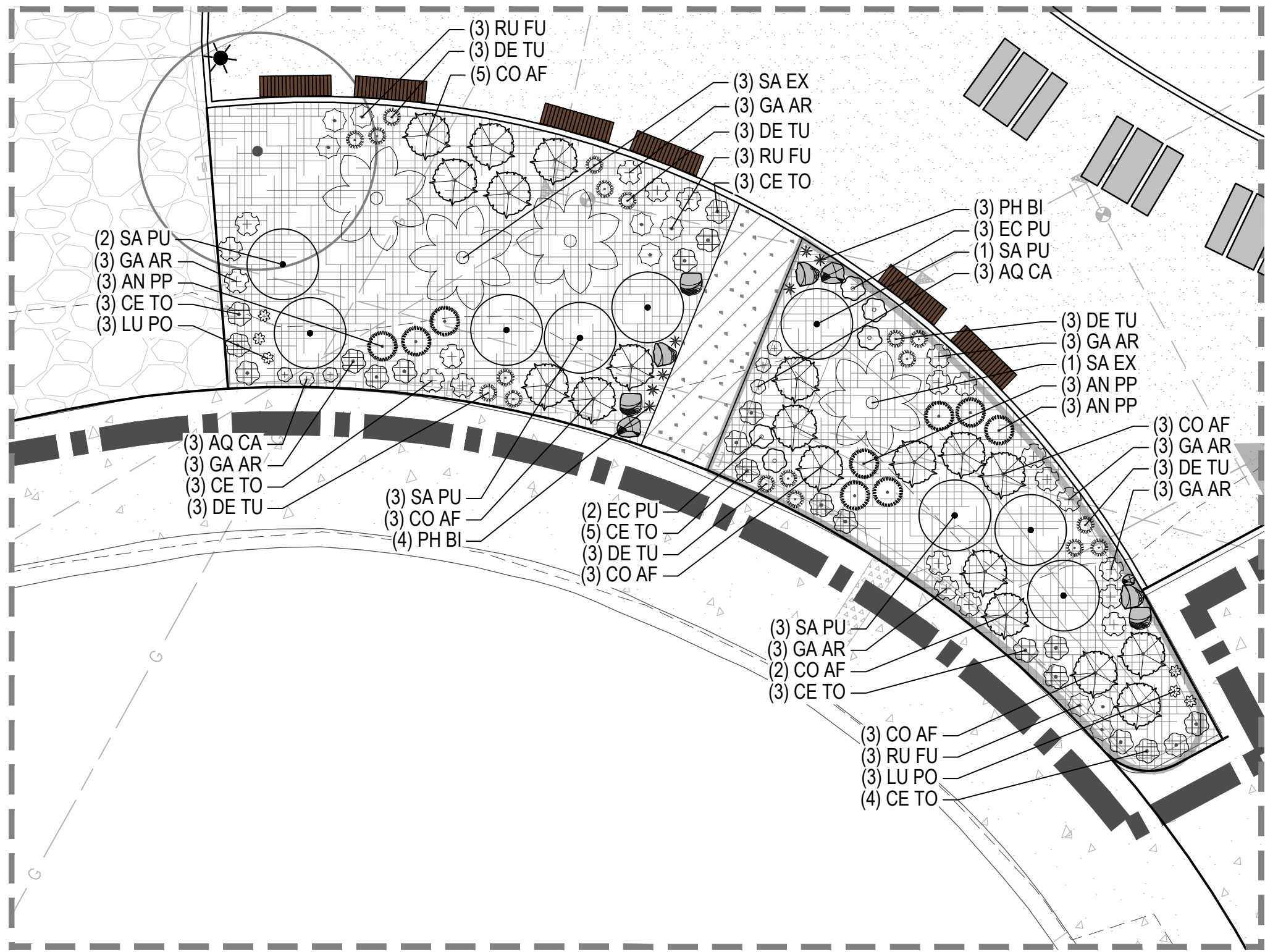
TURF LAWN, L-002

FIRE LANE MATERIAL TO BE
REPLACED AS NECESSARY



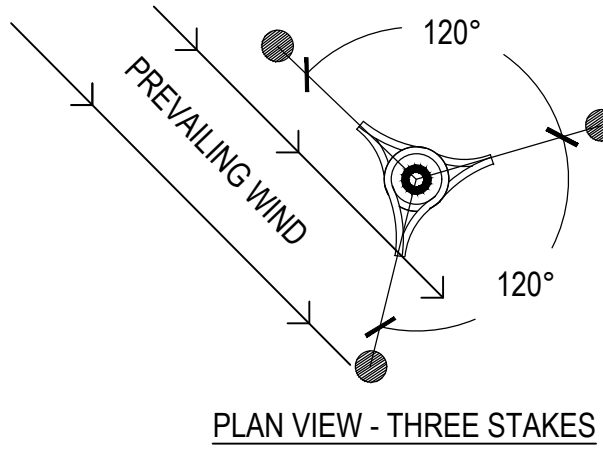
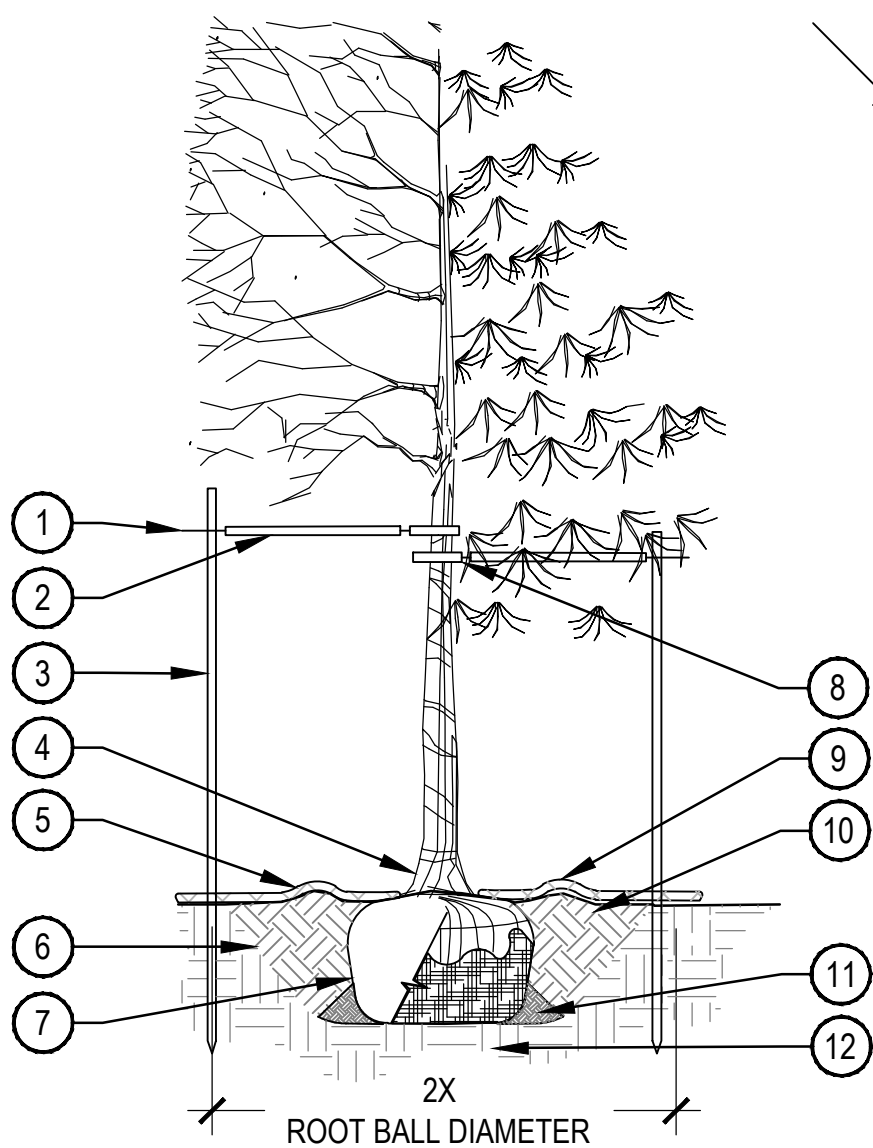
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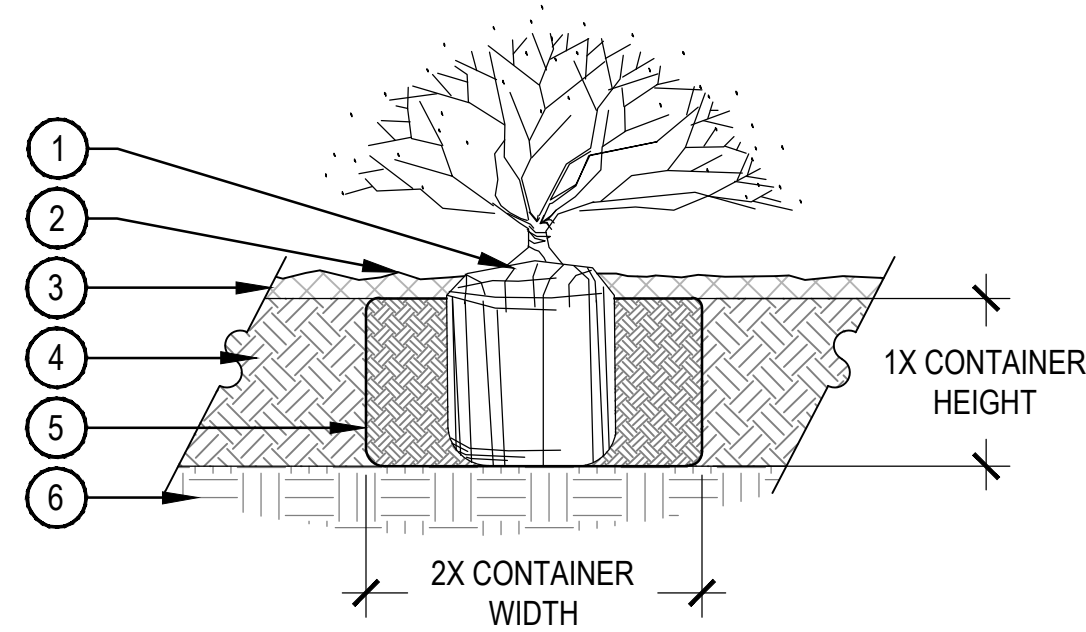


- PRUNING NOTES:
- ALL PRUNING SHALL COMPLY WITH ANSI A300 STANDARDS.
 - DO NOT HEAVILY PRUNE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS AND BROKEN BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED, HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

- STAKING NOTES:
- STAKE TREES PER DIAGRAM. AFTER A MINIMUM OF (3) THREE YEARS CONFIRM TREE IS ESTABLISHED. CHECK FOR ROOTBALL STABILITY. APPLY HAND PRESSURE TO TRUNK OF TREE. WHEN ROOTBALL DOES NOT MOVE, REMOVE STAKING.
 - 2" CALIPER SIZE AND UNDER DECIDUOUS AND ASPEN TREES - MINIMUM 2 STAKES - ONE ON N.W. SIDE, ONE ON S.W. SIDE (OR PREVAILING WIND SIDE AND 180° FROM THAT SIDE).
 - EVERGREEN TREES - 3 STAKES PER DIAGRAM.
 - 3" CALIPER SIZE AND LARGER - 3 STAKES PER DIAGRAM.
 - WIRE OR CABLE SHALL BE MINIMUM 12 GAUGE, TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. NYLON STRAPS SHALL BE LONG ENOUGH TO ACCOMMODATE 1-1/2" OF GROWTH AND BUFFER ALL BRANCHES FROM WIRE.
 - ADJUST STAKING, STRAPS AND GUY WIRES ANNUALLY.
 - TREATED WOOD POST PREFERRED. METAL T STAKES WITH PLASTIC SAFETY CAPS ACCEPTABLE WITH APPROVAL FROM OWNER.



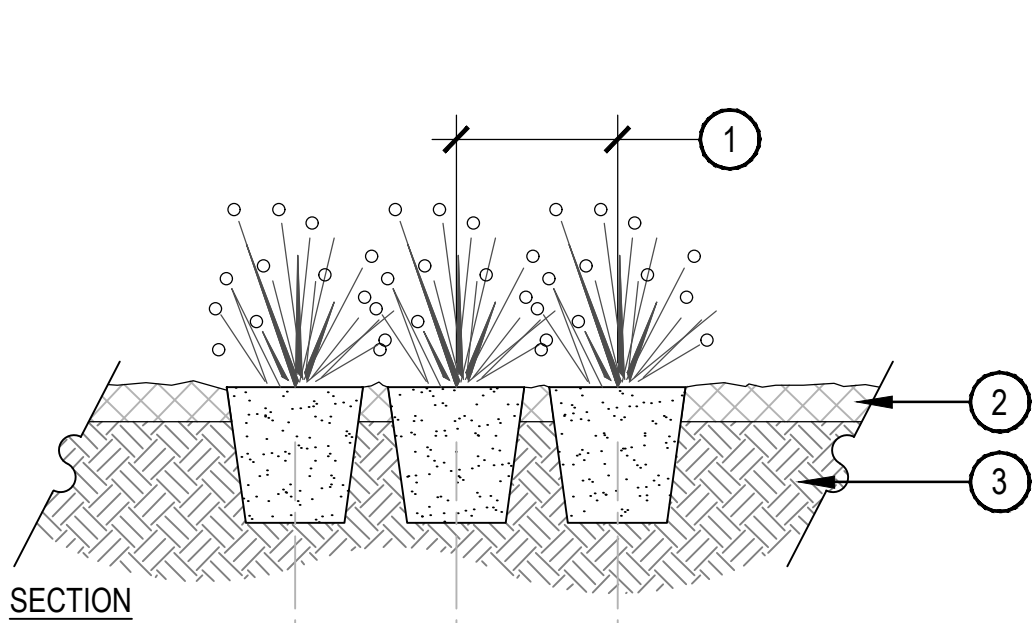
- GALVANIZED WIRE
- PLACE MINIMUM 1/2" PVC PIPE AROUND EACH WIRE, EXPOSED WIRE SHALL BE MAXIMUM 2" EACH SIDE
- INSTALL STAKING PER SPECIFICATIONS
- PLANT TREE SO THAT FIRST ORDER MAJOR ROOT IS 1"-2" ABOVE FINAL GRADE
- 2'-0" RADIUS MULCH RING, CENTERED ON TRUNK, 3" DEPTH, DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK, FINISHED GRADE REFERENCES TOP OF MULCH
- 1:1 SLOPE ON SIDES OF PLANTING HOLE
- REMOVE ALL TWINE, ROPE, BURLAP AND WIRE FROM THE ENTIRE ROOTBALL AND TRUNK
- GROMMETED NYLON STRAPS
- 4-6" HIGH WATER SAUCER IN NON-TURF AREAS
- BACKFILL AROUND ROOTBALL WITH PLANT MIX. PLANT MIX SHALL CONSIST OF EQUAL PARTS TOPSOIL, COMPOST, EXCAVATED SOIL, PLUS MYCORRHIZAL INOCULANT PER SPECIFICATIONS
- PLACE SOIL AROUND ROOT BALL FIRMLY, DO NOT COMPACT OR TAMP, SETTLE SOIL WITH WATER TO FILL ALL AIR POCKETS
- PLACE ROOT BALL ON UNDISTURBED SOIL TO PREVENT SETTLEMENT



- NOTE:
- BROKEN OR CRUMBLING ROOT-BALLS WILL BE REJECTED.
 - CARE SHOULD BE TAKEN NOT TO DAMAGE THE SHRUB OR ROOT-BALL WHEN REMOVING IT FROM ITS CONTAINER.
 - ALL JUNIPERS SHOULD BE PLANTED SO THE TOP OF THE ROOT-BALL OCCURS ABOVE THE FINISH GRADE OF THE MULCH LAYER.
 - DIG PLANT PIT TWICE AS WIDE AND AS HIGH AS THE CONTAINER.
 - PRUNE ALL DEAD OR DAMAGED WOOD PRIOR TO PLANTING, DO NOT PRUNE MORE THAN 20% OF LIMBS.

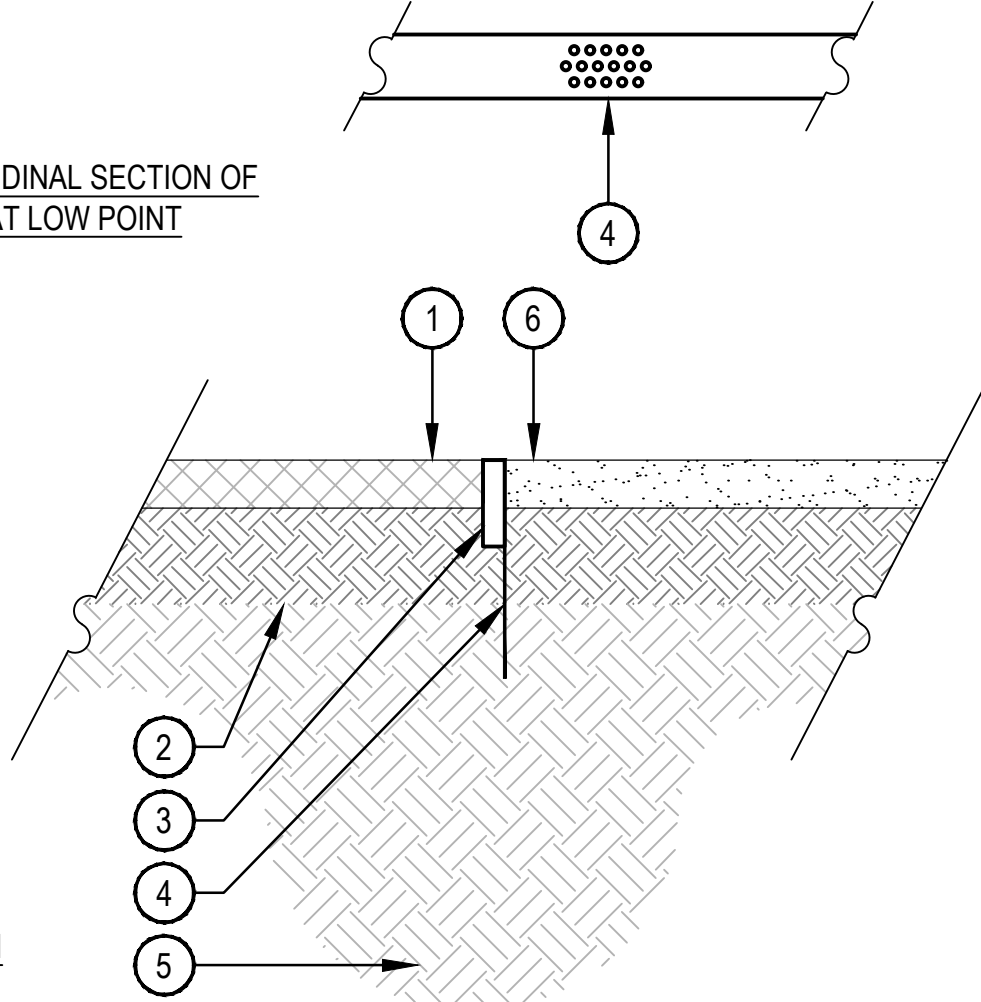
1 TREE PLANTING

SCALE: 3/16" = 1'-0"



- REFER TO PLANTING PLAN FOR LAYOUT AND PLANTING SCHEDULE FOR SPACING
- SPECIFIED MULCH, REFER TO MATERIAL SCHEDULE, SHEET L-003
- AMENDED PLANTING BED TILLED TO A DEPTH OF 10", BACKFILL WITH PLANT MIX PER LANDSCAPE SPECIFICATIONS
- CENTER OF PLANT

LONGITUDINAL SECTION OF EDGER AT LOW POINT



- FINISHED GRADE AND TOP OF MULCH
- AMENDED SOIL PER SPECIFICATIONS
- PLASTIC EDGER, REFER TO MATERIAL SCHEDULE, SHEET L-003, DRILL (16) 1/2" DIAMETER HOLES 1" ON CENTER MINIMUM AT ALL LOW POINTS OR POORLY DRAINING AREAS IN ORDER TO ENSURE ADEQUATE DRAINAGE
- STEEL "J" STAKE PER MANUFACTURER RECOMMENDATION
- SUBGRADE
- CRUSHER FINES SHALL BE FLUSH WITH TOP OF EDGER

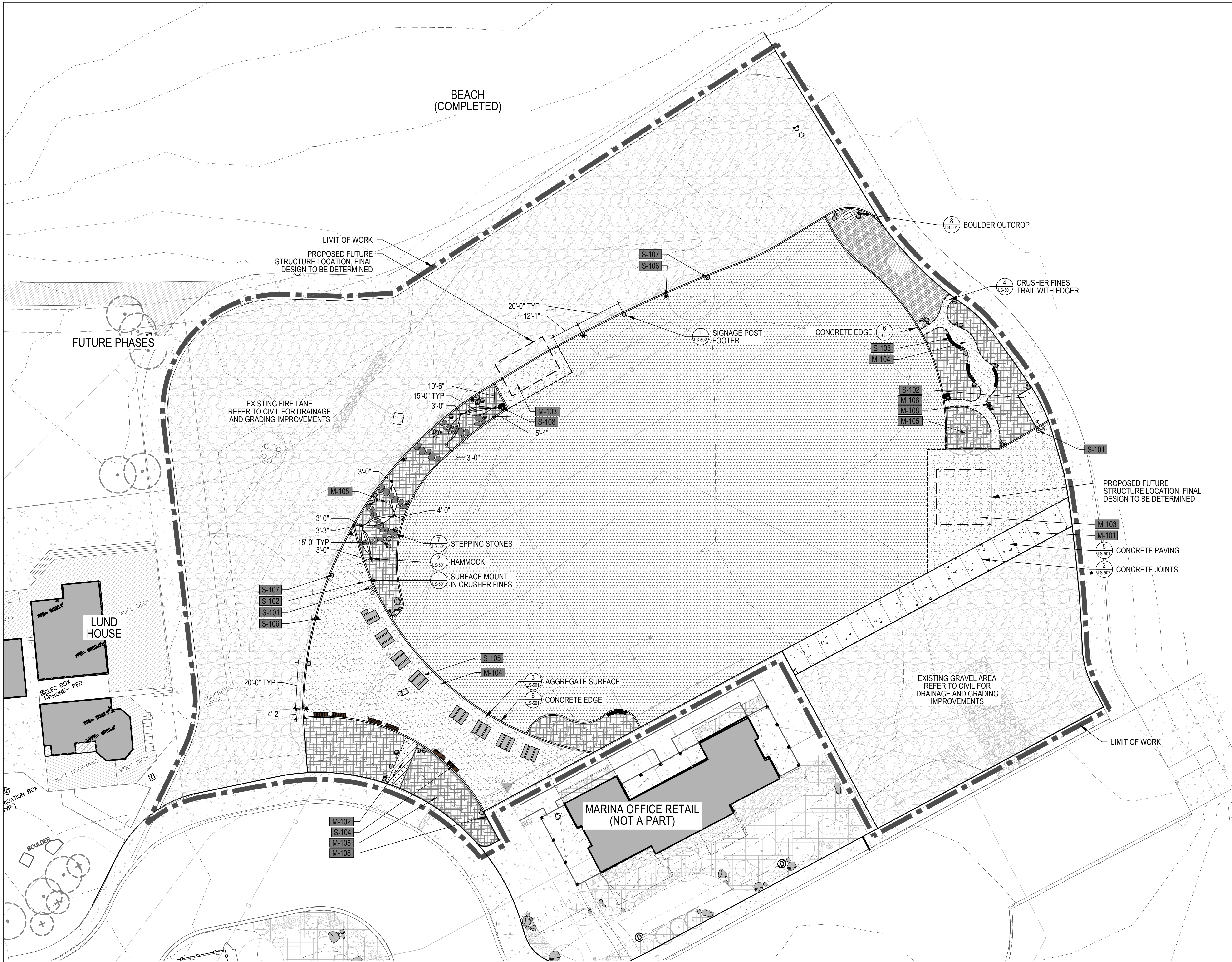
- NOTES:
- THERE SHALL BE NO EXPOSED SHARP/ JAGGED EDGES.
 - CONTRACTOR SHALL INSTALL STAKES AS REQUIRED BY THE MANUFACTURER.
 - ENSURE POSITIVE DRAINAGE.

3 PERENNIAL PLANTING

SCALE: 1" = 1'-0"

4 PLASTIC EDGER

SCALE: 1" = 1'-0"



LEGEND

EXISTING TREES TO REMOVE

EXISTING TREES TO REMAIN

PROPOSED TREES

S-102 BIKE RACKS

S-103 CURVED BENCH

S-104 STRAIGHT BENCH

S-105 PICNIC TABLE

S-106 PEDESTRIAN BOLLARD

S-107 SIGNAGE POST

S-108 DOG BAGS

HAMMOCKS, DETAIL 2/LS-501

M-107 STEPPING STONES, DETAIL 7, LS-501

M-108 LANDSCAPE BOULDERS, DETAIL 8, LS-501

MATCH LINE

LIMIT OF WORK

LOT LINE

6" CONCRETE EDGER, DETAIL 6/LS-501

FUTURE PROPOSED BUILDING

M-106 PLASTIC EDGER, DETAIL 4/L-501

M-101 STANDARD CONCRETE, DETAIL 5/LS-501

M-102 ENHANCED CONCRETE

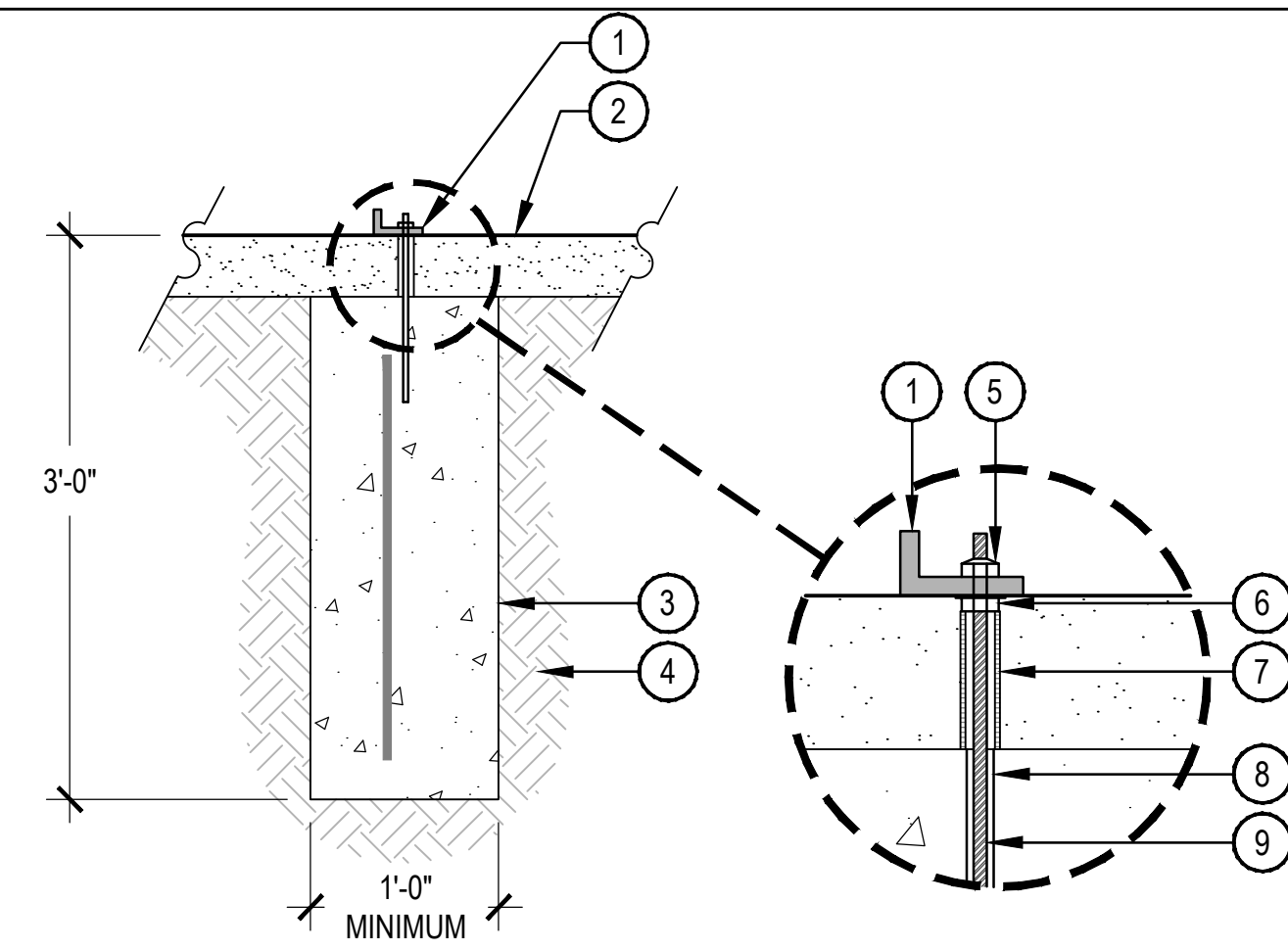
M-103 RECYCLED ASPHALT

M-104 CRUSHER FINES

M-105 WOOD MULCH

TURF LAWN, L-002

FIRE LANE MATERIAL TO BE REPLACED AS NECESSARY



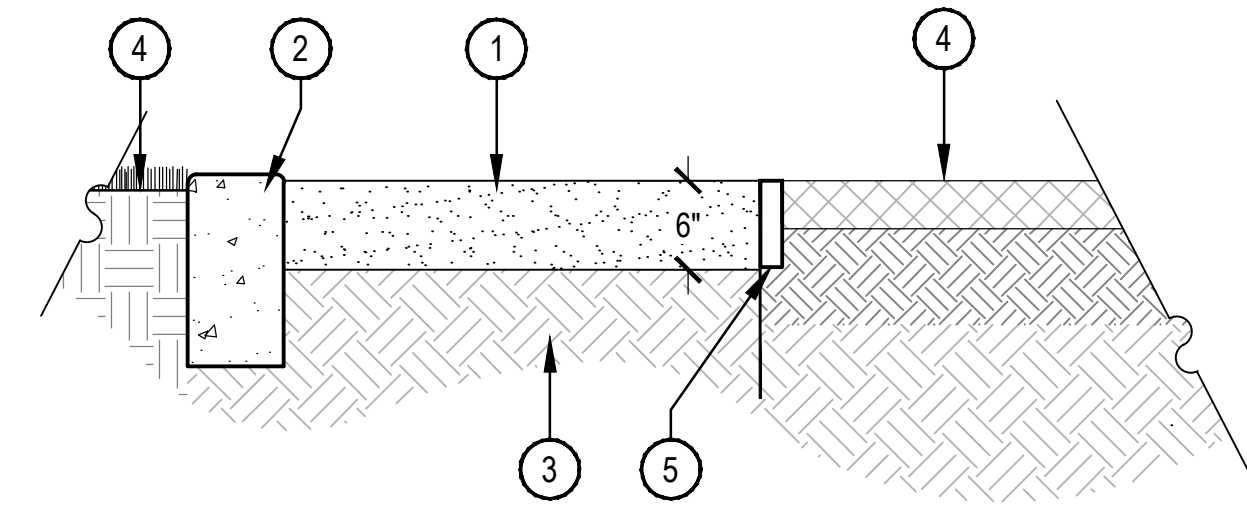
BENCHES, TRASH RECEPTACLES, AND TABLES

NOTES:

1. AFTER SIGNIFICANT SETTLING TIME, ALL-THREAD ROD(S) TO BE CUT FLUSH.
2. ALL CONCRETE TO HAVE A MINIMUM 4,500LBS COMPRESSIVE STRENGTH AT 28 DAYS.

1 SURFACE MOUNT IN CRUSHER FINES

SCALE: 1" = 1'-0"

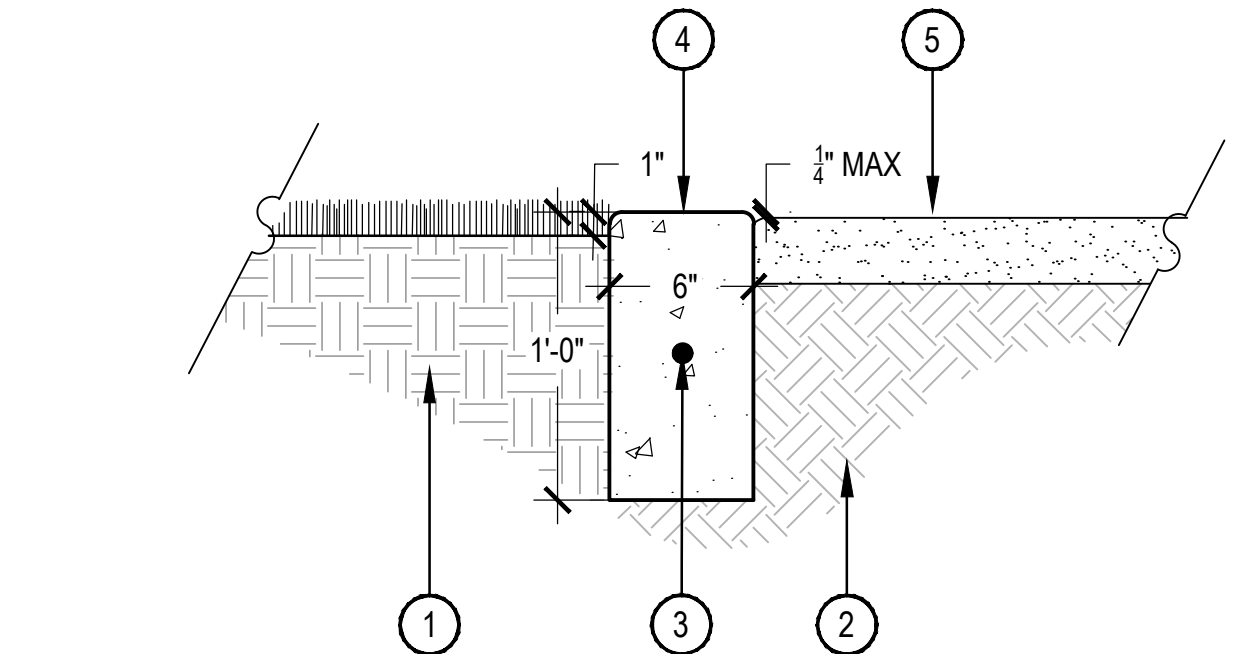


NOTES:

1. REFER TO CIVIL PLANS FOR DRAINAGE.
2. BLEND NEW AGGREGATE SURFACE WITH ADJACENT EXISTING AGGREGATE SURFACES.

3 AGGREGATE SURFACE

SCALE: 1" = 1'-0"



NOTES:

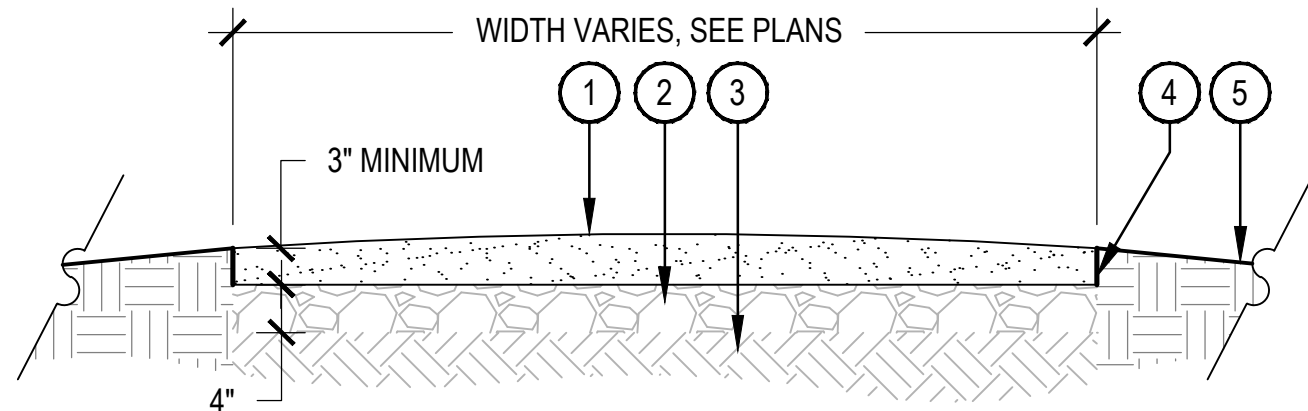
1. PROVIDE CONTROL JOINTS AT 6' ON CENTER AND EXPANSION JOINTS AT 24' ON CENTER.
2. MINIMUM BURY DEPTH ON ALL REBAR SHALL BE 2'-1/2", UNLESS OTHERWISE NOTED.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.

6 CONCRETE EDGE

SCALE: 1 1/2" = 1'-0"

2 HAMMOCK

SCALE: 1/2" = 1'-0"

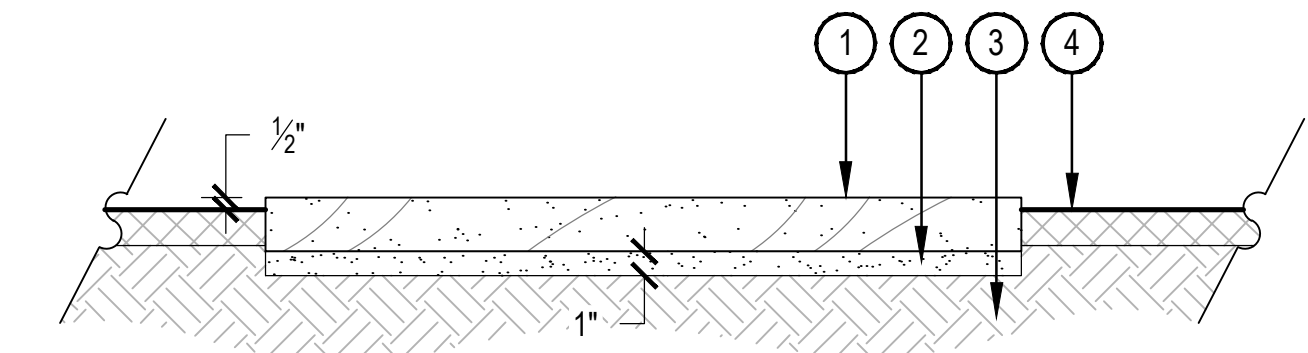


NOTES:

1. COMPACT CRUSHER FINES WET. COMPACT TO 95% STANDARD PROCTOR DENSITY.
2. USE A SMALL 4' RIDING ROLLER TO COMPACT TRAIL.
3. CROWN OF 2% IN FLAT AREAS AS SHOWN.
4. CROSS SLOPE TRAIL AT 1-2% WITH GRADE WHERE TOPOGRAPHY DICTATES.
5. APPLY STABILIZER/TACKIFIER TO CRUSHER FINES SURFACE.

4 CRUSHER FINES TRAIL WITH EDGER

SCALE: 3/4" = 1'-0"

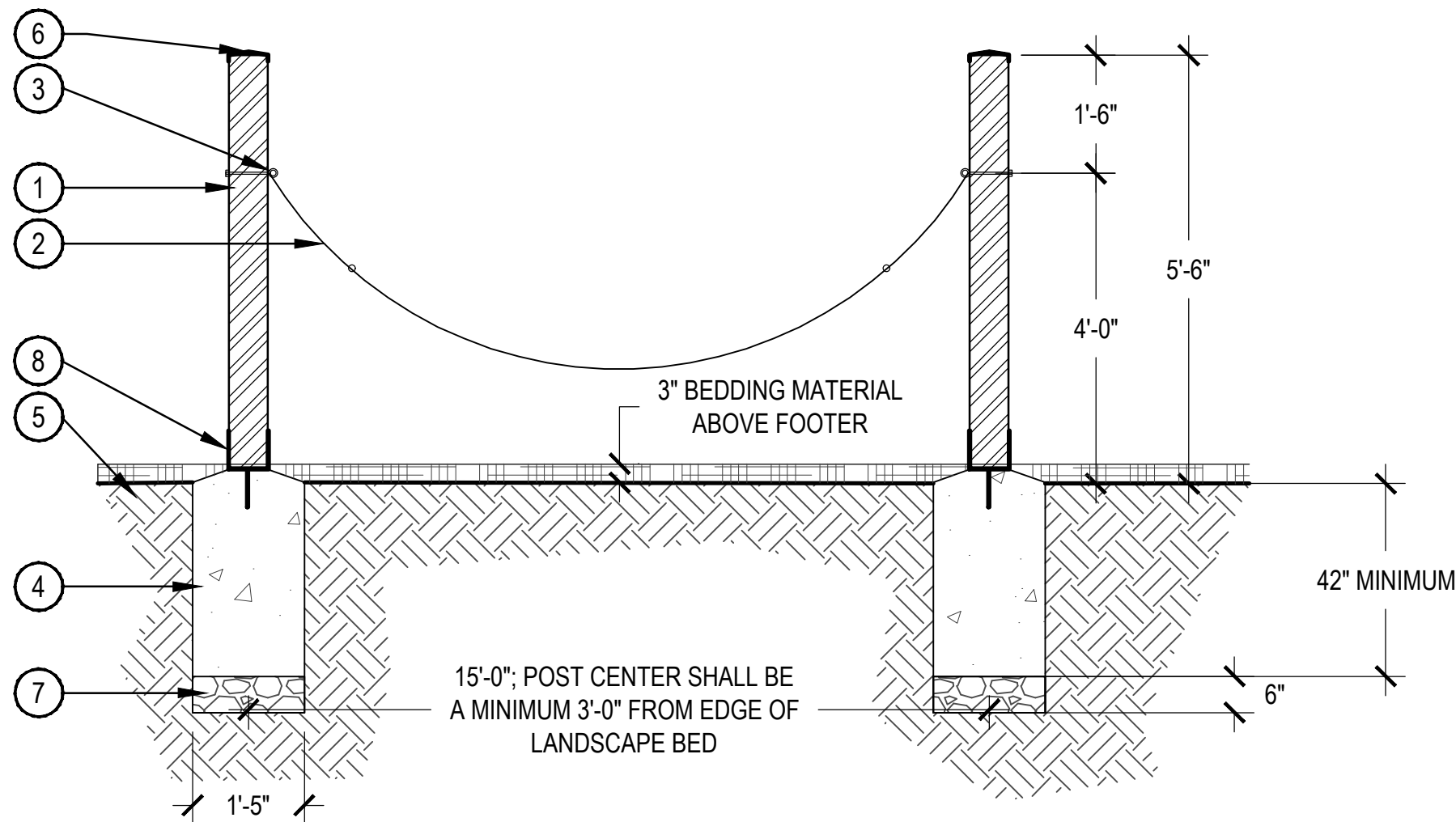


NOTES:

1. FLAGSTONE STEPPERS, REFER TO MATERIAL SCHEDULE, SHEET L-003
2. 1" DEPTH SAND LEVELING BED
3. SUBGRADE COMPACTED TO 95% PROCTOR DENSITY
4. SURROUNDING LANDSCAPE, REFER TO PLANS

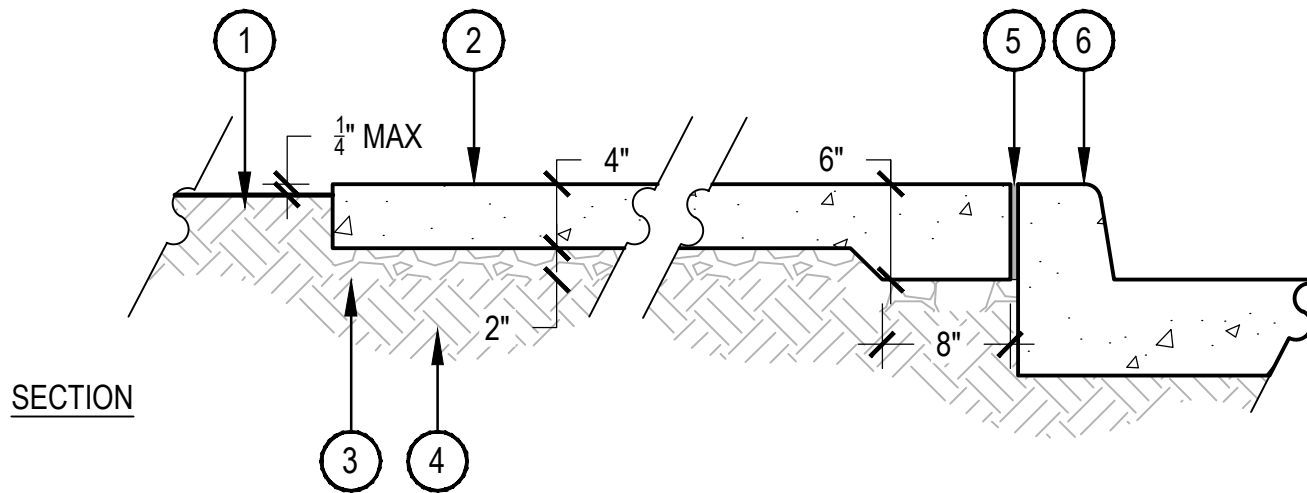
7 STEPPING STONES

SCALE: 1 1/2" = 1'-0"



SECTION

1. 6X6 CEDAR POST, STAIN WITH SHERWIN WILLIAMS SW 3561 CEDAR SUPER DECK STAIN OR APPROVED EQUAL
2. HAMMOCK, USER PROVIDED
3. 1/2"-13 X 6" STAINLESS STEEL EYE BOLT WITH HEX NUT, OFFSET BOLTS BY 2" WHEN TWO BOLTS ARE REQUIRED
4. CONCRETE FOOTING
5. ADJACENT BEDS, REFER TO PLANS
6. 6 IN. X 6 IN. BLACK PYRAMID ALUMINUM POST CAP
7. 6" DEPTH FREE DRAINING COBBLE LEVELING BED
8. SIMPSON STRONG-TIE WOOD CONSTRUCTION CONNECTORS, STANDOFF POST BASE PBS66 OR APPROVED EQUAL, INSTALL PER MANUFACTURER SPECIFICATIONS. PAINT BLACK TO MATCH POWDER COATED FIXTURES

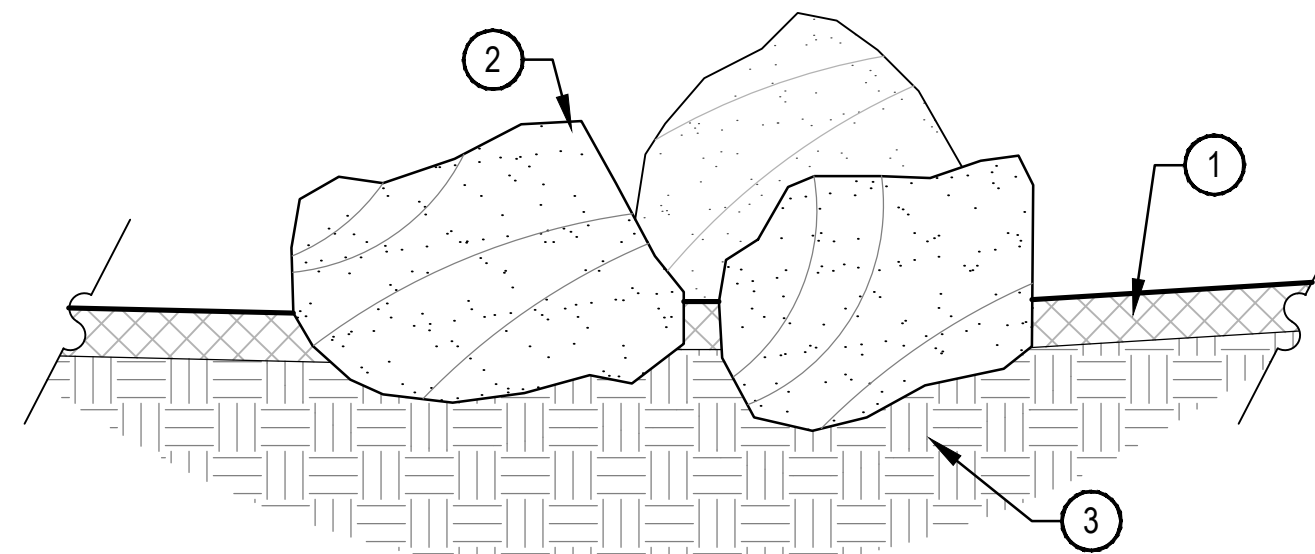


NOTES:

1. PROVIDE A 25 SF MOCK-UP OF CONCRETE PAVING FOR EACH FINISH SPECIFIED. MOCK-UP SHALL INCLUDE CONTROL JOINTS. MOCK-UP NOT REQUIRED FOR STANDARD BROOM FINISH.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
3. EXPANSION JOINTS AT 200' ON CENTER MAXIMUM OR WHERE NOTED.
4. CONTROL JOINTS AS SHOWN ON PLANS.

5 CONCRETE PAVING

SCALE: 1" = 1'-0"



NOTES:

1. THE LANDSCAPE ARCHITECT SHALL APPROVE LOCATIONS AND SIZES OF ALL BOULDERS PRIOR TO PLACING.

8 BOULDER OUTCROP

SCALE: 1" = 1'-0"

OWNER:

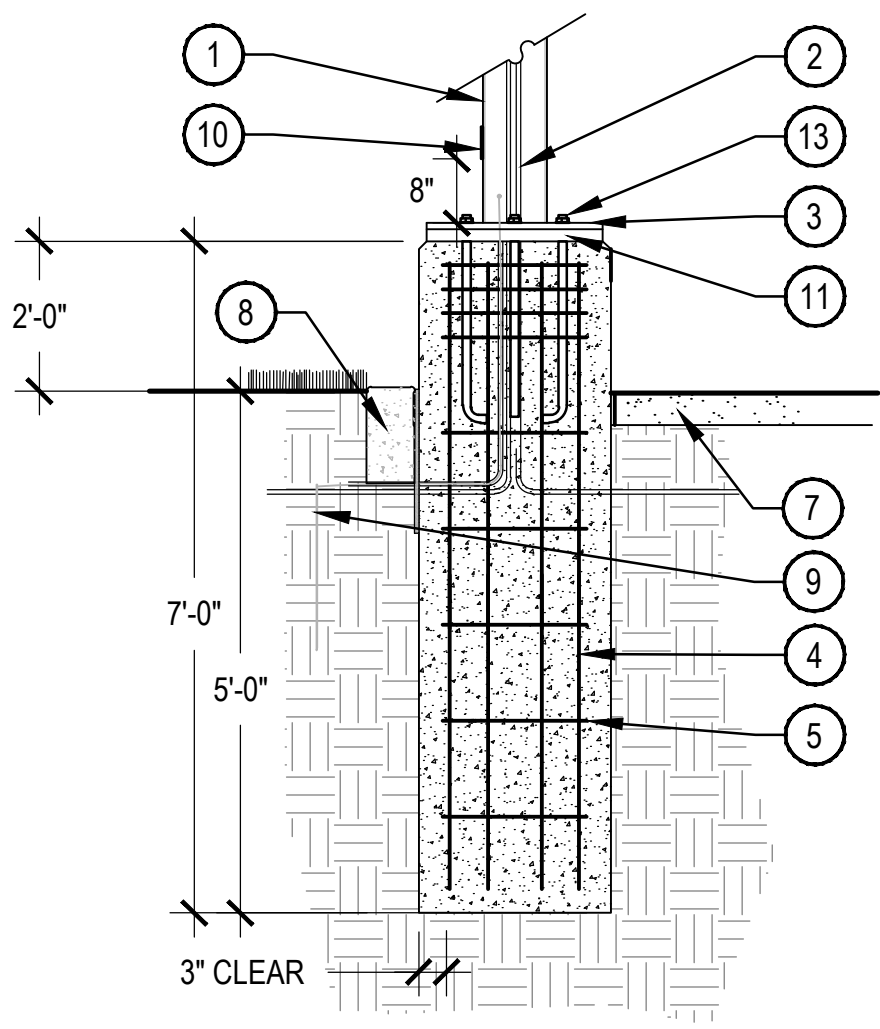
TOWN OF FRISCO
1 EAST MAIN STREET
FRISCO, CO 80443
970.668.5276

DATE:

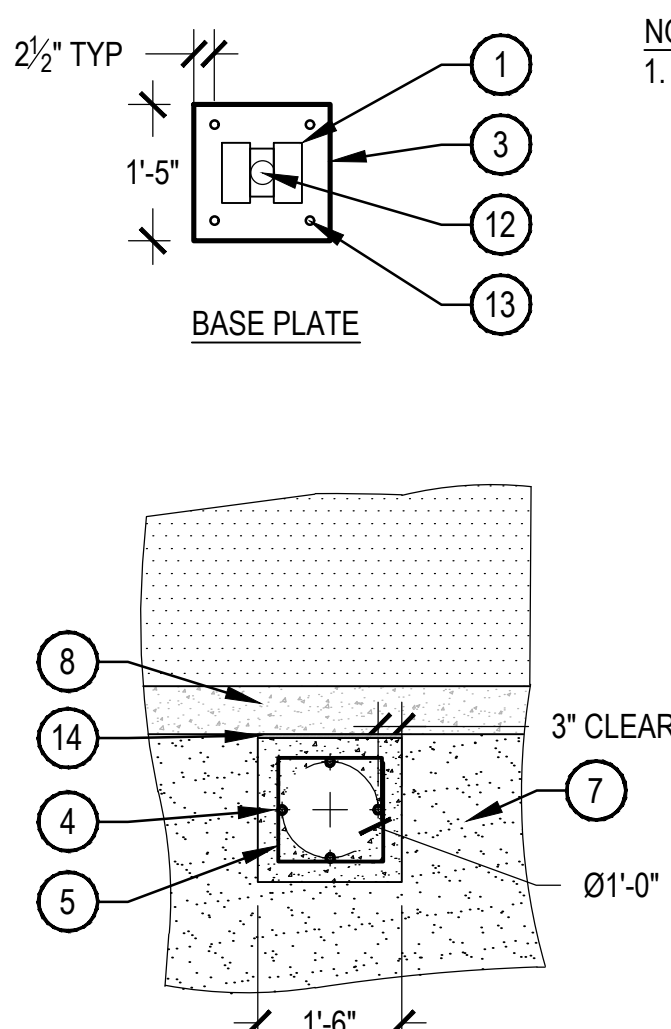
01/17/22: 100 SD
02/17/22: 100 DD
04/15/22: 90 CD
05/05/22: 90 CD
09/09/22: DRAFT BID
09/19/22: BID DOCS

SHEET TITLE:

HARDSCAPE
DETAILS



FOOTING SECTION



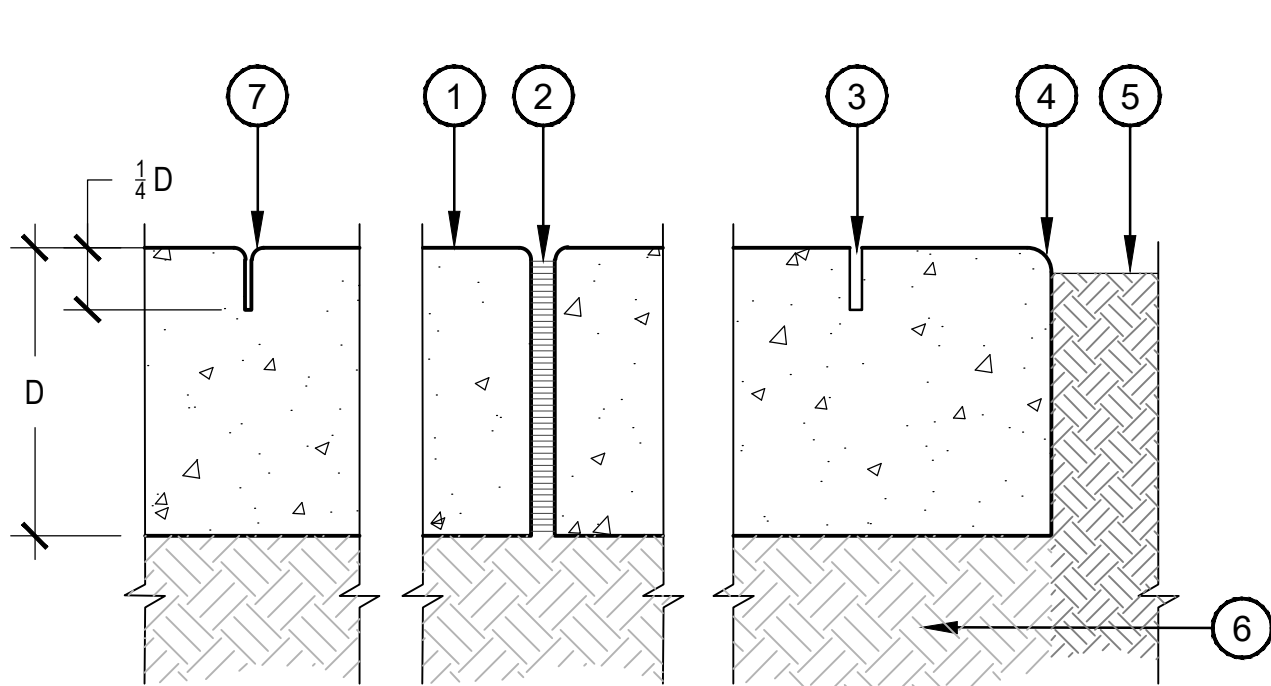
FOOTING PLAN

NOTES:

1. FOOTING TO BE REVIEWED AND STAMPED BY A LICENSED STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

- 1 SIGNAGE POST BY OWNER
2 ELECTRICAL CONDUIT, REFER TO ELECTRICAL
3 17" x 17" x 3/4" BASE PLATE
4 (8) # 5 VERTICAL REBAR, GRADE 60 MINIMUM
5 # 3 REBAR HOOPS, GRADE 60 MINIMUM, (4) 3" C/C TOP THEN (5) 12" C/C TO BOTTOM
6 CABLE ATTACHMENT, 3/8" STEEL PLATE, 3/16" CONTINUOUS WELDS
7 ADJACENT SURFACE, REFER TO PLANS
8 ADJACENT CONCRETE CURB
9 GROUND WIRE WITH SEPARATE CONDUIT THROUGH BASE, REFER TO ELECTRICAL
10 2"x4" HAND HOLE ACCESS, GASKETED METAL COVER 8" ABOVE BASE AND BELOW TOP.
11 1 1/2" GROUT
12 3" ACCESS HOLE
13 (4) 3/4" Ø F1554 ANCHOR RODS EMBEDDED 12" INTO CONCRETE FOOTING
14 EXPANSION JOINT, DETAIL 2/ LS501

SCALE: 1/2" = 1'-0"



NOTES:

1. C.I.P. CONCRETE PER PLANS AND SPECIFICATIONS.
2. CONTROL JOINTS AS NOTED ON PLANS WITH EXPANSION JOINTS @ 24' O.C. MAX. OR WHERE NOTED.

- 1 CONCRETE PAVING FINISH AS NOTED ON PLANS
2 FIBER EXPANSION JOINT W/ TRAFFIC SEALANT
3 SAW CUT JOINT, 1/8" x 2" DEPTH. DRY CUT JOINT TO AVOID SPALLING. JOINTS SHALL BE CUT BETWEEN 24-48 HOURS OF INSTALLATION
4 1/4" RADIUS TOOL EDGE
5 FINISHED GRADE OF LANDSCAPE AREA. BACKFILL AFTER FORM REMOVAL.
6 COMPACTED SUBGRADE, 95% STANDARD PROCTOR DENSITY - SEE GEOTECHNICAL REPORT FOR FURTHER INFORMATION
7 1/8" RADIUS




















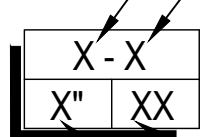
2 CONCRETE JOINTS

SCALE: 3" = 1'-0"

1 SIGNAGE POST FOOTING

CHECKED BY: ES
DRAWN BY: AR

IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION	MODEL NO. DESCRIPTION	DETAIL # AND SHEET		
	IRRIGATION METER	1" DEDICATED IRRIGATION METER REFER TO CIVIL, UTILITY, AND WATER PLANS	NA	NA	
	IRRIGATION CONTROLLER	RAINMASTER RME24EGP-ICENTRAL-SPED-T IN STAINLESS STEEL PEDESTAL ENCLOSURE 120VAC POWER REQUIRED - SEE PLANS FOR LOCATION	1	LI-501	
	RAIN SENSOR	RAINMASTER RM-WETHER-ETRS REFER TO CONTROLLER NOTES	2	LI-501	
	BACKFLOW PREVENTER	1" WILKINS 975XL2 SEE ENCLOSURE SPECIFICATIONS BELOW	8	LI-502	
NOT SHOWN	SECURITY ENCLOSURE	GUARD SHACK GS-1 LIFT OFF ENCLOSURE WITH FROSTGUARD BLANKET, POWDER COATED DESERT TAN	9	LI-502	
	MANUAL DRAIN VALVE	MATCO-NORCA 1/2" 201X INSTALLED IN HIGHLINE 10" ROUND VALVE BOX	1	LI-503	
	QUICK COUPLER	TORO 100-SLSC INSTALLED IN HIGHLINE 10" ROUND VALVE BOX	5	LI-501	
	MASTER VALVE	TORO P-220-26-04 INSTALLED IN HIGHLINE 12" STANDARD VALVE BOX	3	LI-501	
	FLOW SENSOR	FLOWMEC QS-200-10 WITH SHIELDED COMMUNICATION CABLE BACK TO CONTROLLER, INSTALLED IN HIGHLINE 12" STANDARD VALVE BOX	4	LI-501	
	ISOLATION GATE VALVE	MATCO-NORCA 514TX MATCH LINE SIZE, INSTALLED IN HIGHLINE 10" ROUND VALVE BOX	6	LI-501	
	TURF VALVE ASSEMBLY	TORO P-220-26-04 WITH SCH 40 BALL VALVE, INSTALLED IN HIGHLINE 12" STANDARD VALVE BOX, SIZED PER PLAN	1	LI-502	
	DRIP VALVE ASSEMBLY	TORO DZK-EZF WITH SCH 40 BALL VALVE, INSTALLED IN HIGHLINE 18" JUMBO VALVE BOX, SIZED PER PLAN	2	LI-502	
	TURF ROTOR	K-RAIN RPS75i-CV STANDARD (GREEN) NOZZLE	3	LI-502	
	MAINLINE CAP	FUTURE CONNECTION SCH 40 PVC CAP INSTALLED IN HIGHLINE 10" ROUND VALVE BOX. REFER TO KEY NOTES	NA	NA	
	SLEEVING	CLASS 200 PVC REFER TO SLEEVING NOTES	7	LI-501	
	SERVICE LINE	TYPE K COPPER SIZE: MATCH POC UNLESS OTHERWISE NOTED	NA	NA	
	PVC MAINLINE	CLASS 200 PVC BE SIZE: 1-1/2" UNLESS OTHERWISE NOTED	8	LI-501	
	PVC TURF LATERAL	100# NSF POLYETHYLENE PIPE SIZE: 1" MINIMUM UNLESS OTHERWISE NOTED	8	LI-501	
	DRIP LATERAL	UV RESISTANT POLYETHYLENE SIZE: 3/4" MINIMUM UNLESS OTHERWISE NOTED	8	LI-501	
	FLUSH END CAP	HOSE END FLUSH CAP & OPERATIONAL INDICATOR INSTALLED IN HIGHLINE 10" ROUND VALVE BOX	7	LI-502	
VALVE CALLOUT		EMITTER SCHEDULE			
	VALVE/STATION NUMBER ZONE DESIGNATION: S (SHRUBS BED), G (TURF), VALVE FLOW: (GPM) VALVE SIZE	PLANT TYPE	EMITTER	QTY.	TOTAL GPH
		PERENNIAL / GRASSES	0.5 GPH	TWO EACH	1.0 GPH
		DECIDUOUS SHRUBS	1.0 GPH	TWO EACH	2.0 GPH
		EVERGREEN SHRUBS	1.0 GPH	TWO EACH	2.0 GPH
		DECIDUOUS TREE	1.0 GPH	EIGHT EACH	8.0 GPH
		EVERGREEN TREE	1.0 GPH	EIGHT EACH	8.0 GPH
EMITTER NOTES					
1. ALL PLANT MATERIAL SHALL BE IRRIGATED WITH RAIN BIRD XB SERIES PRESSURE COMPENSATING EMITTERS. 2. EMITTER SCHEDULE IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL ADJUST EMITTER AND NUMBER OF EMITTERS BASED ON THE NEEDS OF INDIVIDUAL PLANTS OR PLANT HYDROZONES. 3. 1/4" DISTRIBUTION TUBING NOT TO EXCEED 8' IN LENGTH. 4. RAIN BIRD DBC-025 DIFFUSER BUG CAP AND TS-025 STAKE ON ALL 1/4" DISTRIBUTION TUBING EMISSION POINTS. 5. REFER TO DRIP IRRIGATION DETAILS 4-6, SHEET LI-502					

IRRIGATION GENERAL NOTES

- THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL THE IMPROVEMENTS SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL COORDINATE AS NECESSARY WITH THE GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE FOR SUCCESSFUL COMPLETION OF THIS WORK.
- ALL IRRIGATION EQUIPMENT IS TO BE AS SPECIFIED OR APPROVED EQUAL PER THE DISCRETION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR ASSUMES ALL LIABILITY ASSOCIATED WITH THE MODIFICATION OF THE IRRIGATION SYSTEM DESIGN WITHOUT NOTIFYING THE OWNER'S REPRESENTATIVE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT A THOROUGH SITE INSPECTION AND REVIEW OF THE PROJECT CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: LANDSCAPE PLAN, UTILITY PLAN, CIVIL UTILITY PLAN, ARCHITECTURE PLAN, GRADING AND DRAINAGE PLAN AND ALL OTHER ASSOCIATED PLANS AND SPECIFICATIONS THAT AFFECT THIS WORK PRIOR TO START OF WORK. IF THE AND CONTRACTOR OBSERVES ANY DISCREPANCIES AMONG THE CONSTRUCTION DOCUMENTS AND THE EXISTING CONDITIONS ON SITE, IT IS THEIR RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE IMMEDIATELY.
- THE CONTRACTOR MUST VERIFY THE LOCATION OF ALL PUBLIC AND PRIVATE UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR FAILS TO DO SO AND DAMAGES ANY UNDERGROUND UTILITIES. THE CONTRACTOR SHALL PAY FOR ANY REPAIR WORK ASSOCIATED WITH SAID DAMAGES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ADEQUATE VERTICAL AND HORIZONTAL SEPARATION BETWEEN ALL IRRIGATION DISTRIBUTION LINES AND ALL UTILITIES (EXISTING OR PROPOSED), CONDUIT, STORM WATER COMPONENTS, DRAINS, ETC.
- THE CONTRACTOR SHALL CONFORM TO ALL LOCAL AND STATE REGULATIONS AND INSTALL THE IRRIGATION SYSTEM AND ITS COMPONENTS PER MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN AND PROVIDE PAYMENT FOR ALL PERMITS REQUIRED BY ANY LOCAL AND STATE AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION OVER THIS SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND PAYING FOR CERTIFICATION OF THE BACKFLOW PREVENTER BY A STATE CERTIFIED INSPECTOR. THE CONTRACTOR SHALL PROVIDE CERTIFICATES TO OWNER'S REPRESENTATIVE PRIOR TO PROJECT ACCEPTANCE.
- IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN LANDSCAPE AREAS AND WITHIN THE PROJECT LIMITS. EQUIPMENT SHOWN OUTSIDE OF THESE LIMITS IS SHOWN FOR GRAPHIC CLARITY ONLY. IF THERE IS A QUESTION REGARDING THE LOCATION OF ANY COMPONENT OF THE IRRIGATION SYSTEM, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE. IF THE CONTRACTOR NEGLECTS TO NOTIFY THE NECESSARY PARTIES, THE CONTRACTOR SHALL PAY FOR ANY REPLACEMENT OR MODIFICATION TO ENSURE PROPER LOCATION AND OPERATION OF THE IRRIGATION SYSTEM AND ITS COMPONENTS.
- ALL IRRIGATION DISTRIBUTION LINES AND EQUIPMENT INCLUDING BUT NOT LIMITED TO, MAINLINE, LATERALS, SPRAY HEADS, DRIP EMITTERS SHALL BE KEPT A MINIMUM DISTANCE OF 6' AWAY FROM ALL BUILDING AND WALL FOUNDATIONS, OR AS STIPULATED IN THE GEOTECHNICAL REPORT , WHICHEVER IS GREATER. EQUIPMENT MAY BE SHOWN IN THIS AREA FOR GRAPHIC CLARITY. COORDINATE ALL REQUIRED SETBACKS WITH OWNER'S REPRESENTATIVE PRIOR TO START OF WORK.
- EACH VALVE SHALL BE INSTALLED IN A SEPARATE VALVE BOX AS DETAILED. ALL VALVE BOXES AND LIDS SHALL BE COMMERCIAL GRADE, PLASTIC WITH SELF LOCKING COVERS. LID COLOR TO BE GREEN. INSTALL FLUSH TO FINISH GRADE AND PER CONSTRUCTION DETAILS. DO NOT INSTALL IN PAVED AREAS OR IN BOTTOMS OF DRAINAGE SWALES/BASINS.
- CONTRACTOR SHALL INSTALL DETECTABLE MARKING TAPE OR #14g DIRECT BURY TRACER WIRE IN ALL PRESSURE MAINLINE TRENCHES. SEE IRRIGATION DETAILS FOR MORE INFORMATION.
- PLANT MATERIAL LOCATIONS TAKE PRECEDENCE OVER ROUTING OF IRRIGATION PIPING. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.
- THE CONTRACTOR SHALL MARK THE LOCATION OF THE MAINLINE, CONTROL VALVES, GATE VALVES AND HEAD LAYOUT OF A REPRESENTATIVE SPRAY ZONE. SCHEDULE A REVIEW WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- INSTALL SCH. 40 BALL WITH OPERATIONAL INDICATOR AT ENDS OF ALL DRIP LATERALS AS DETAILED. FLUSH ALL LATERALS THOROUGHLY BEFORE INSTALLING EMITTERS AND BUBBLERS.
- CONTRACTOR SHALL FINE TUNE AND ADJUST NOZZLE DIRECTION AND RADIUS TO REDUCE OVERSPRAY ONTO PAVING OR HARD SURFACES.
- CONTRACTOR SHALL INSTALL A QUICK COUPLER IN 10" VALVE BOX AT THE END OF ALL BRANCHES OF THE MAINLINE, OR AS SHOWN ON PLANS, FOR WINTERIZATION AND FLUSHING OF MAINLINE.
- THE CONTRACTOR SHALL PERFORM A PRESSURE TEST ON ALL MAINLINES. CONTRACTOR SHALL PRESSURIZE MAINLINES TO 120 PSI AND MAINTAIN PRESSURE AT 120 PSI FOR A MINIMUM CONTINUOUS PERIOD OF TWO (2) HOURS TO ACHIEVE FINAL ACCEPTANCE.
- THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE DURING A THREE(3) NIGHT PER WEEK, SIXTEEN(16) HOURS PER NIGHT WATERING WINDOW. DRIP IRRIGATION ZONES MAY BE ALLOWED TO RUN ON A SEPARATE SCHEDULE FROM THIS WATER WINDOW DEPENDING JURISDICTION. LANDSCAPE ESTABLISHMENT WILL REQUIRE INCREASED IRRIGATION WATER FOR DURATION OF THE ESTABLISHMENT PERIOD AND MAY REQUIRE TWICE THE AMOUNT OF WATER AS ESTABLISHED PLANT MATERIAL. THE CONTRACTOR SHALL COORDINATE WATERING SCHEDULES AND APPLICATION RATES WITH THE OWNER'S REPRESENTATIVE PRIOR TO FINAL ACCEPTANCE.
- THE DESIGN IS BASED ON THE FOLLOWING PROJECTED PEAK SEASON WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND VARIABLE WEATHER CONDITIONS.
 - FESCUE/BUEGRASS BLEND TURF 1.50" PER WEEK PEAK SEASON
 - TREE, SHRUB, AND PERENNIAL PLANT MATERIAL 0.75" PER WEEK PEAK SEASON
 - NATIVE DRAUGHT TOLERANT SEED MIX 0.50" PER WEEK PEAK SEASON
- THE CONTRACTOR SHALL PROVIDE A SEASONAL MAINTENANCE SCHEDULE WHICH SHALL BEGIN ON MAY 15TH AND END ON SEPTEMBER 15TH. TO ENSURE THE EFFICIENCY AND LONGEVITY OF THE IRRIGATION SYSTEM. THE MAINTENANCE SCHEDULE SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING LIST OF BEST MANAGEMENT PRACTICES:
 - CHECK HEADS FOR COVERAGE AND LEAKAGE.
 - CHECK CONTROLLER PROGRAMMING AND ADJUST FOR SEASONAL CHANGES AS NECESSARY.
 - VERIFY THAT THE WATER SUPPLY AND PRESSURE ARE AS STATED IN THE DESIGN.
 - CERTIFY THE BACKFLOW PREVENTION DEVICE AND SUBMIT TEST RESULTS TO THE PROPERTY MANAGER.
 - PERIODICALLY VERIFY THE THE SENSORS IN THE IRRIGATION SYSTEM ARE OPERATING CORRECTLY.
 - WINTERIZATION AND SPRING START UP PROCEDURES.

IRRIGATION POINT OF CONNECTION NOTES

- POINT OF CONNECTION: THERE IS ONE (1) POINT OF CONNECTION ON THIS PROJECT.
POC #1 : 1" DEDICATED IRRIGATION WATER METER LOCATED AT EAST OF MARINA OFFICE.
 - CONTRACTOR IS TO LOCATE AND CONNECT DOWNSTREAM OF THE DEDICATED POTABLE IRRIGATION WATER METER (PROVIDED BY OTHERS) WITH TYPE K COPPER AT A DEPTH OF 120" OR PER LOCAL CODE, WHICHEVER IS GREATER. EXTEND COPPER TO BACKFLOW PREVENTION UNIT. EXTEND COPPER TUBING MINIMUM 30" HORIZONTAL FROM BACKFLOW PREVENTER AND INSTALL ONE MANUAL DRAIN, TRANSITION TO AND EXTEND CLASS 200 PVC MAINLINE TO THE 1" QUICK COUPLER, MASTER VALVE, FLOW SENSOR, GATE VALVE, AND EXTEND MAINLINE TO VALVES AS SHOWN.
 - ALL PIPING FROM THE DEDICATED IRRIGATION POTABLE METER THROUGH DRAIN VALVE DOWNSTREAM OF THE BACKFLOW PREVENTION UNIT SHALL BE THE SAME SIZE AS THE METER UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL CONFORM TO ALL LOCAL CODES, OBTAIN AND PROVIDE PAYMENT FOR ALL PERMITS ASSOCIATED WITH THIS WORK. FINAL LOCATION OF BACKFLOW PREVENTION UNIT SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- CONTROLLER LOCATION: THERE IS ONE (1) CONTROLLER ON THIS PROJECT.
CONTROLLER A : PEDESTAL MOUNTED CONTROLLER LOCATED ADJACENT TO IRRIGATION WATER METER.
 - CONTROLLER SHALL BE PROGRAMMED TO RUN MULTIPLE VALVES AT ONE TIME WITH A MAXIMUM TOTAL OF 18 GPM .
 - CONTROLLER, TO BE MOUNTED PER DETAILS AND MANUFACTURER'S SPECIFICATIONS.
 - CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE AND ELECTRICAL PLANS FOR POWER SERVICE. ALL ELECTRICAL EQUIPMENT AND POWER CONNECTION INSTALLATION SHALL CONFORM TO ALL LOCAL CODES. INSTALL A LINE VOLTAGE SURGE DEVICE (INTERMATIC AG240IC3/ OR SQUARE D SDSA1175) FOR 120V IN A JUNCTION BOX PRIOR TO CONTROLLER.
 - RAIN/FREEZE SENSOR: MOUNT THE RAIN SENSOR ON BUILDING EAVE IN PROXIMITY TO THE CONTROLLER. THE SENSOR SHALL BE MOUNTED IN A LOCATION IN FULL SUN AND OPEN TO RAINFALL. SENSOR SHALL BE NO MORE THAN 200' FROM WIRELESS RECEIVER. MOUNT WIRELESS RECEIVER ON OR ADJACENT TO THE IRRIGATION CONTROLLER.
- SYSTEM PRESSURE: THE SYSTEM HAS BEEN DESIGNED PER THE FOLLOWING SPECIFICATIONS: REQUIRED MINIMUM STATIC PRESSURE OF 75 PSI AND MAXIMUM SAFE VELOCITY OF 5 FPS IN ANY PVC PIPE AND 7.5 FPS IN ANY COPPER PIPE.
 - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE PRESSURE IN THE FIELD AT THE POINT OF CONNECTION BEFORE CONSTRUCTION BEGINS AND FOR NOTIFYING THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE DESIGN PRESSURE OF THE SYSTEM AND THE MEASURED PRESSURE IN THE FIELD. IF THE CONTRACTOR FAILS TO NOTIFY OWNER'S REPRESENTATIVE OF SUCH DISCREPANCIES, THEN THE CONTRACTOR ASSUMES ALL LIABILITY AND COSTS ASSOCIATED WITH SYSTEM MODIFICATIONS TO ACCOMMODATE THE ACTUAL PRESSURE.
 - FLOW SENSOR: SENSOR REQUIRES A MINIMUM FLOW FOR PROPER READINGS. MULTIPLE ZONES MAY BE REQUIRED TO RUN SIMULTANEOUSLY TO ACHIEVE THE MINIMUM FLOWS REQUIRED. CONTRACTOR TO SET 'K' VALUES PER MANUFACTURER.
- FLOW SENSOR REQUIRES A MINIMUM FLOW OF 0.22 GPM.
- COMMUNICATION: IT IS RECOMMENDED THAT THE IRRIGATION CONTROLLER BE CONNECTED TO A WATER MANAGEMENT CONTROL SOFTWARE FOR OPTIMUM FUNCTION OF THE IRRIGATION SYSTEM. COORDINATE WITH OWNER'S REPRESENTATIVE AND CONTACT THE LOCAL CONTROLLER MANUFACTURER REPRESENTATIVE OR AUTHORIZED VENDOR PRIOR TO ORDERING CONTROLLER FOR COMMUNICATION AND CONNECTIVITY OPTIONS.

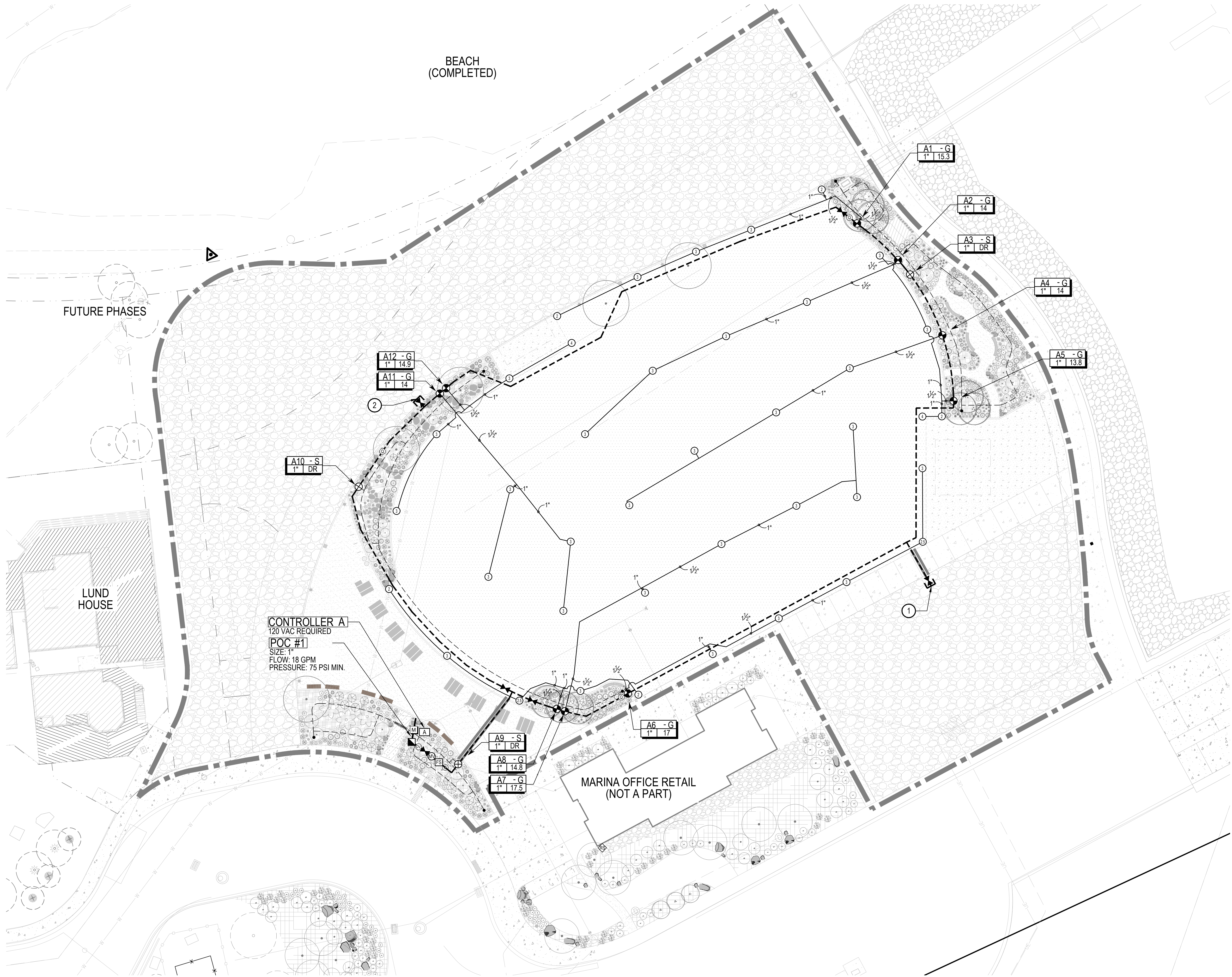
CONVENTIONAL WIRE NOTES

- GROUNDING FOR THE IRRIGATION CONTROLLER SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS AND PER THE AMERICAN SOCIETY OF IRRIGATION CONSULTANTS GUIDELINE 100-2002 FOR EARTH GROUNDING ELECTRONIC EQUIPMENT IN IRRIGATION SYSTEMS FOUND AT www.asic.org/Design_Guides.aspx. FOR TECHNICAL SUPPORT REGARDING THE IRRIGATION CONTROLLER OR GROUNDING PLEASE CONTACT THE MANUFACTURER.
- NEW CONTROLLER WIRE SHALL BE 14GA MIN. UL APPROVED WIRE. CONTRACTOR SHALL VERIFY EXISTING CONNECTIONS AND USE UL APPROVED WIRE STRIPPER AND 3M DBY WATERPROOF CONNECTIONS AT ALL NEW SPLICES AND CONNECTION POINTS. CONTRACTOR TO INSTALL RED ELECTRIC MARKING TAPE WITH CONTROLLER WIRE THAT IS NOT WITH MAINLINE. WIRES SHALL BE BUNDLED TOGETHER BY BLACK ELECTRICAL TAPE EVERY 10 L.F.
- CONTRACTOR SHALL HAVE 30' OF SPARE CONTROL WIRE PRESENT AT ALL SPLICE POINTS. SPARE WIRE SHALL BE COILED IN A NEAT AND ORDERLY FASHION AT EACH SLICE POINT.
- CONTRACTOR SHALL EXTEND TWO (2) SPARE CONTROL WIRES, AND ONE (1) SPARE COMMON WIRE AT THE END OF THE MAINLINE. CONTRACTOR SHALL INSTALL ONE (1) WIRE PULL BOX AT EACH END OF THE MAINLINE.

SLEEVING COORDINATION NOTES

- INSTALLATION OF IRRIGATION SLEEVING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE IRRIGATION CONTRACTOR FOR LOCATION AND SIZING OF SLEEVES PRIOR TO THE START OF CONSTRUCTION.
- SLEEVES SHALL BE INSTALLED PRIOR TO THE START OF PAVING OPERATIONS.
- THE CONTRACTOR SHALL SLEEVE ALL IRRIGATION DISTRIBUTION LINES, VALVE CONTROL WIRES AND COMMUNICATION WIRES UNDER ALL PAVED SURFACES, WALL FOOTERS, DRAINAGE CHANNELS, INLETS, CATCH BASINS, ETC.
- ALL SLEEVES SHALL EXTEND A MINIMUM OF 12" BEYOND EDGE OF ALL OBSTRUCTIONS. NO TEES, ELLS OR OTHER TURNS IN PIPING SHALL BE LOCATED UNDER ANY OBSTRUCTIONS.
- EACH PIPE SHALL BE IN A SEPARATE SLEEVE. WIRES SHALL BE IN A SEPARATE PIPE UNDER ALL PAVED SURFACES.
- SLEEVING SHALL BE INSTALLED PER THE SIZES AND QUANTITIES SHOWN ON THE PLANS BASED ON THE CHART BELOW.

PIPING	REQUIRED SLEEVE SIZE
MAINLINE PIPING	3" CLASS 200 PVC
LATERAL PIPING	2X NOMINAL DIAMETER OF LATERAL
CONTROL WIRES	2" CLASS 200 PVC



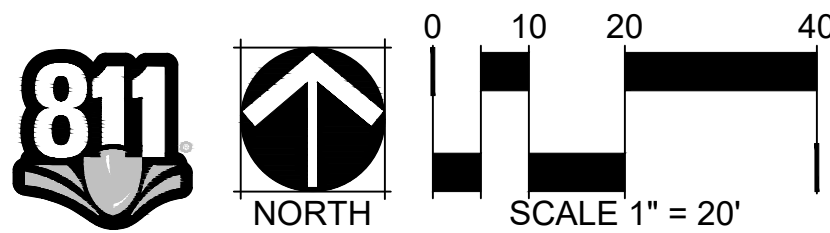
IRRIGATION KEY NOTES

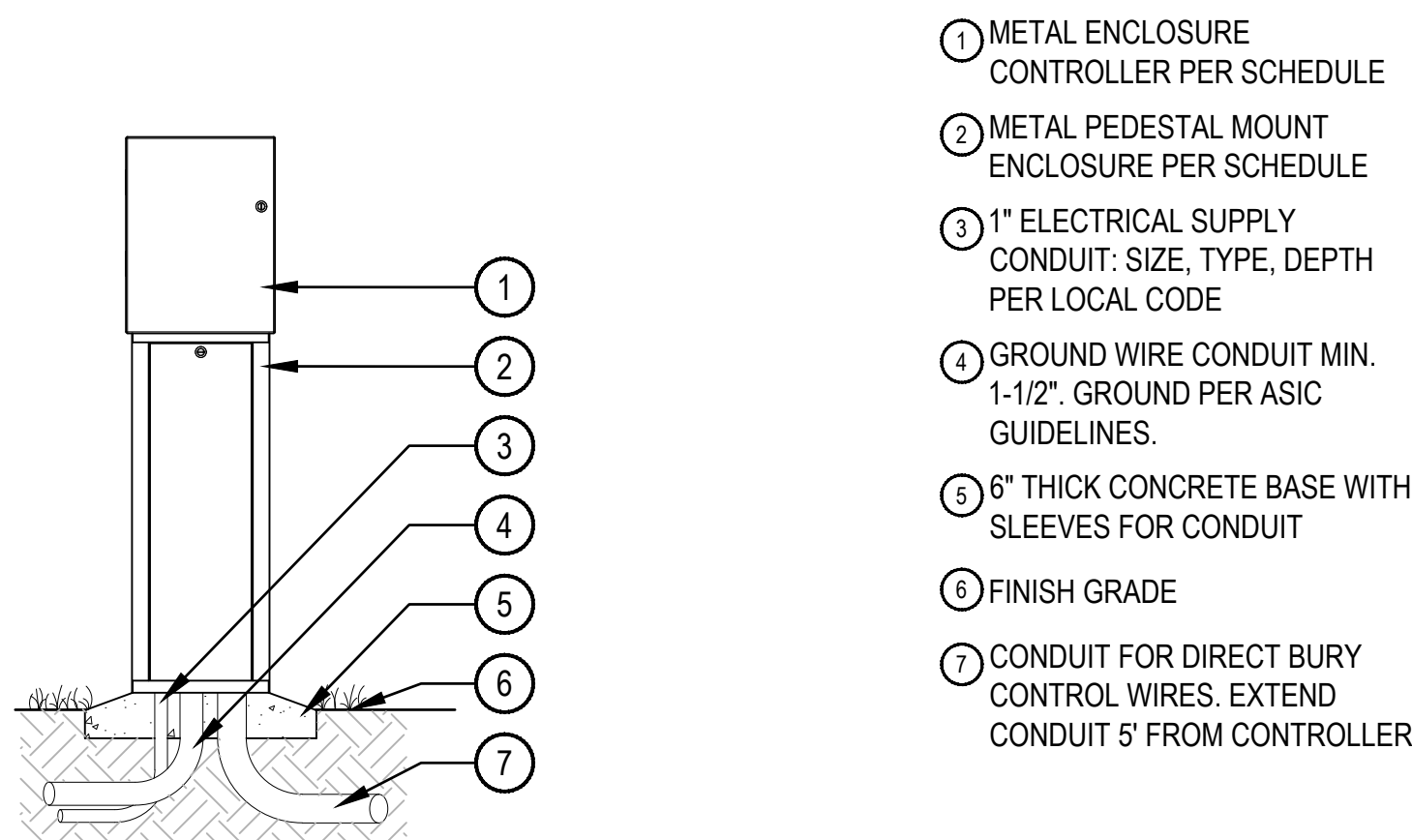
- 1 IRRIGATION CONTRACTOR SHALL STUB NEW MAINLINE PIPING GATE VALVE, THREE (3) SPARE CONTROL WIRES, ONE (1) COMMON WIRE, ONE (1) SPARE COMMON WIRE, AND TWO (2) SPARE CONTROL WIRES TO THIS APPROXIMATE LOCATION FOR FUTURE USE. CONTRACTOR SHALL ENCLOSE WIRE BUNDLE IN 10\" ROUND VALVE BOX FOR FUTURE REFERENCE.
- 2 IRRIGATION CONTRACTOR SHALL STUB NEW MAINLINE PIPING GATE VALVE, SIX (6) SPARE CONTROL WIRES, ONE (1) COMMON WIRE, ONE (1) SPARE COMMON WIRE, AND TWO (2) SPARE CONTROL WIRES TO THIS APPROXIMATE LOCATION FOR FUTURE USE. CONTRACTOR SHALL ENCLOSE WIRE BUNDLE IN 10\" ROUND VALVE BOX FOR FUTURE REFERENCE. CONTRACTOR SHALL NOT INSTALL GATE VALVE, MAINLINE STUB, OR SPARE WIRES IN ADJACENT FIRE LANE. THESE ITEMS SHALL BE INSTALLED IN THE PLANTING BED TO AVOID DAMAGE BY EMERGENCY VEHICLES.

NOT FOR
CONSTRUCTION

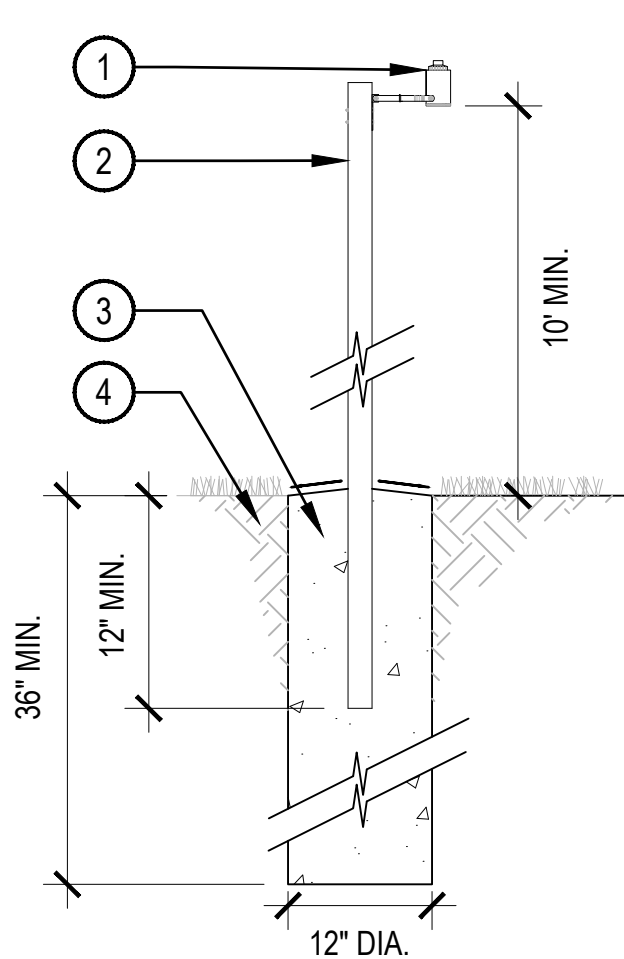
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09/09/22: DRAFT BID
09/19/22: BID DOCS

SHEET TITLE:
IRRIGATION
PLAN

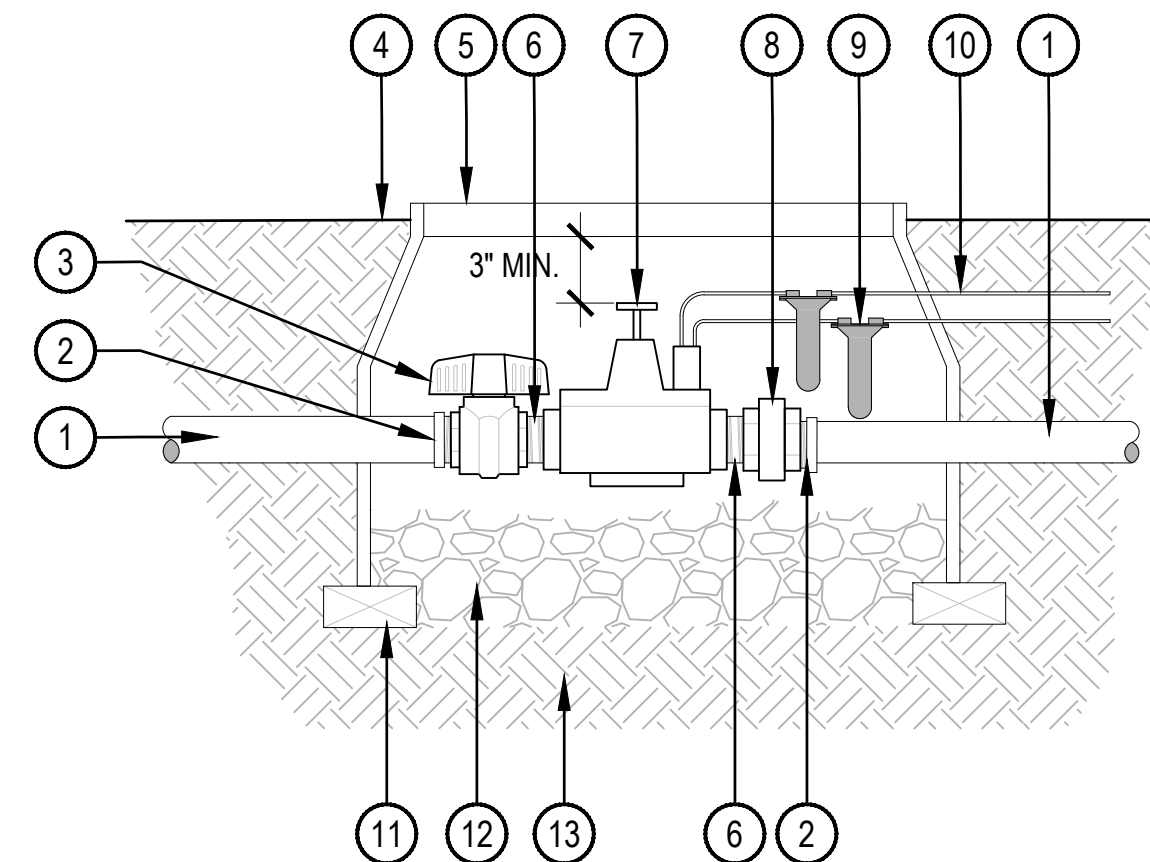




NOTE:
1. ALL ELECTRICAL AND CONTROLLER WIRE TO BE INSTALLED PER LOCAL CODE AND
MANUFACTURER'S SPECIFICATIONS.
2. PROVIDE LOCK AND KEY FOR ENCLOSURE.
3. GROUND CONTROLLER PER LOCAL CODE, MANUFACTURER AND ASIC SPECIFICATIONS.
4. PROVIDE WATERPROOF SEALANT FOR ALL CONDUIT AND WIRE ACCESS POINTS.



NOTE:
1. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. SLOPE TOP OF FOOTER AWAY FROM POLE.
3. FINAL LOCATION AND MOUNTING SYSTEM TO BE APPROVED BY OWNER.
4. SENSOR SHOULD NOT BE MOUNTED UNDER TREES, IN AREAS AFFECTED BY SPRINKLER
SYSTEM OR UNDER EAVE OF HOUSE.



NOTE:
1. INSTALL MASTER VALVE PER MANUFACTURER'S SPECIFICATIONS FOR WIRING AND
GROUNDING.

1 CONTROLLER PEDESTAL

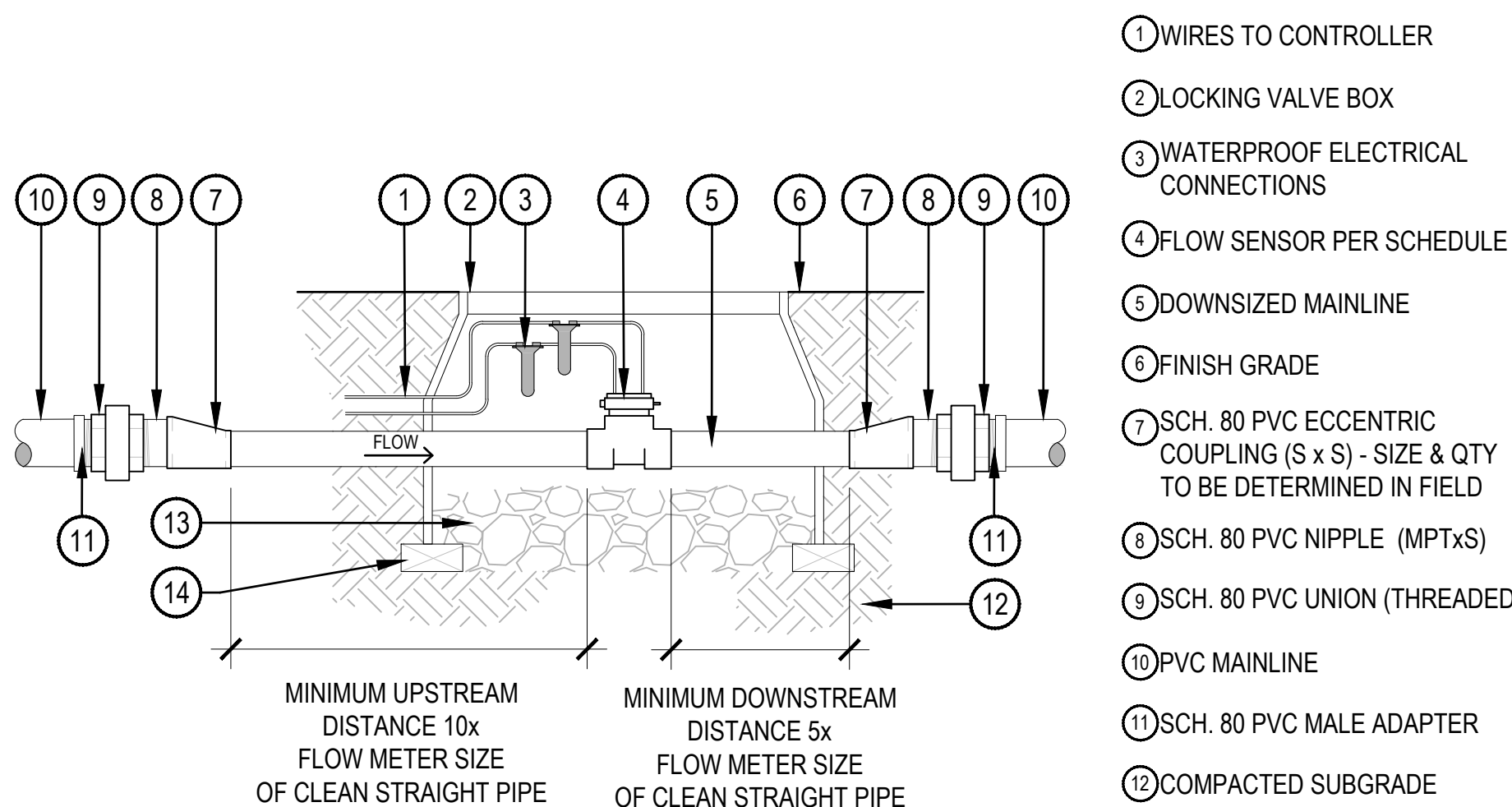
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2 RAIN SENSOR POLE MOUNT

NTS

3 MASTER VALVE

SCALE: NTS



NOTE:
1. INSTALL FLOW SENSOR PER MANUFACTURER'S SPECIFICATIONS FOR WIRING AND
GROUNDING.

4 FLOW SENSOR

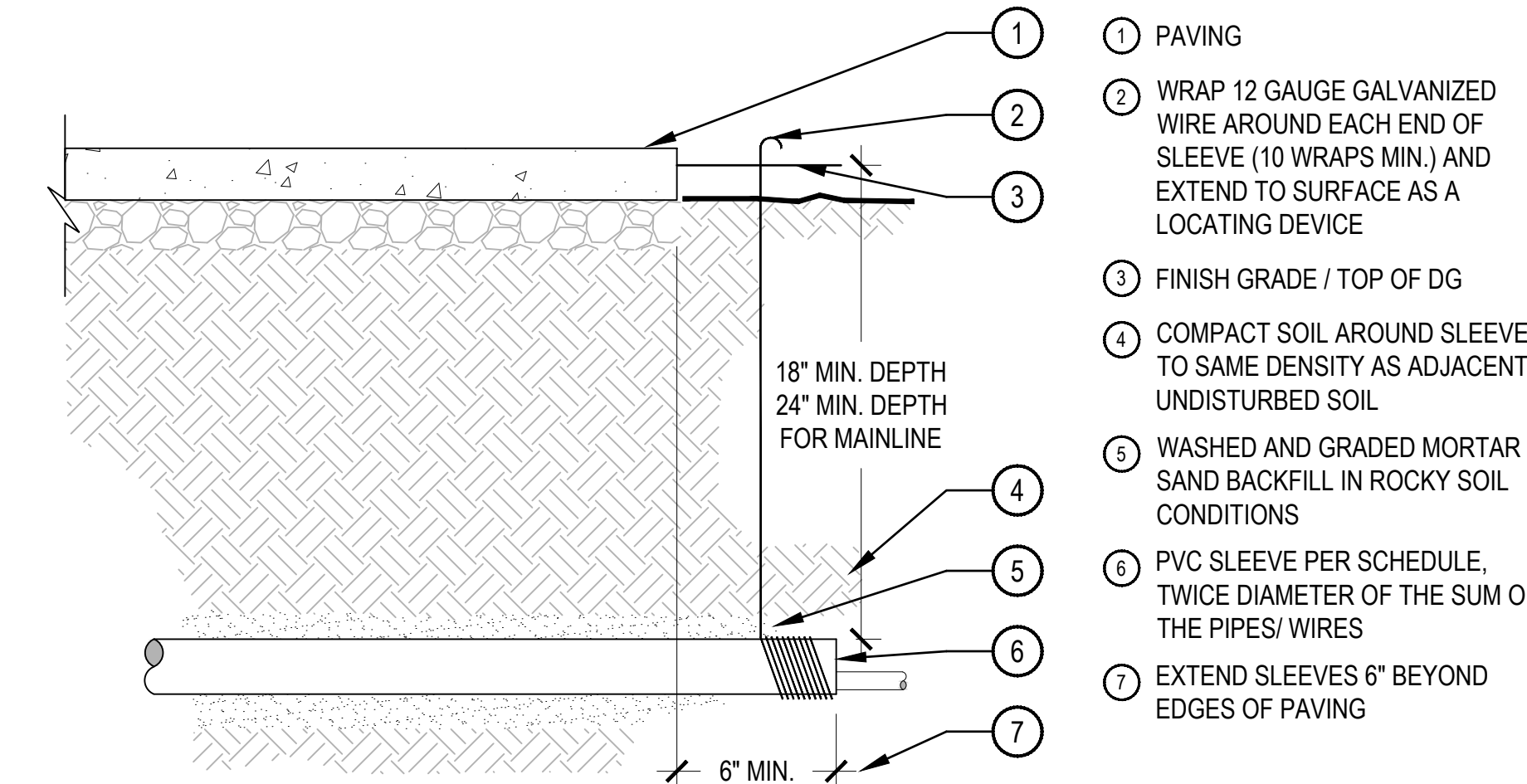
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5 QUICK COUPLER

SCALE: NTS

6 GATE VALVE 2" AND SMALLER

SCALE: NTS



NOTE:
1. ALL SLEEVES SHALL BE INSPECTED PRIOR TO BACKFILLING.
2. CAP SLEEVES UNTIL USE.
3. MULTIPLE SLEEVES REQUIRE 4" HORIZONTAL SEPARATION WITHIN SAME SLEEVE TRENCH.
4. IRRIGATION PIPE AND WIRE SHALL NOT SHARE THE SAME SLEEVE.
5. MARK / STAMP - 'X' AND/OR INSTALL PLACARD AT BACK OF CURB.

7 PIPE SLEEVE

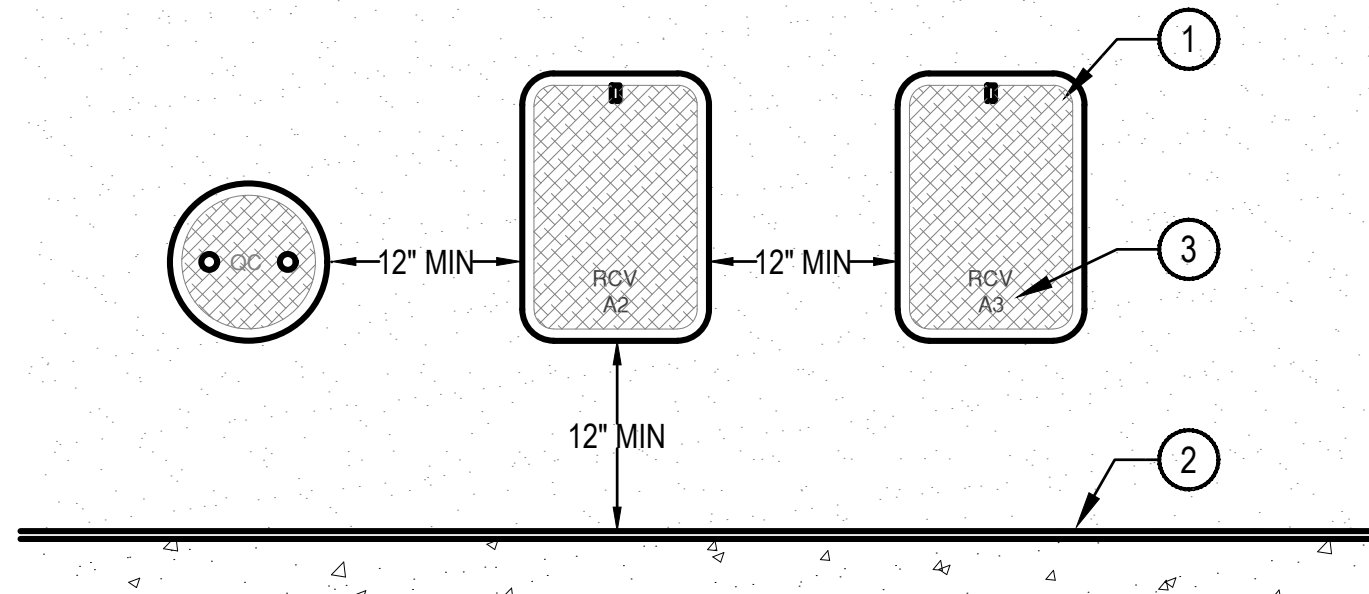
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8 PIPE TRENCH

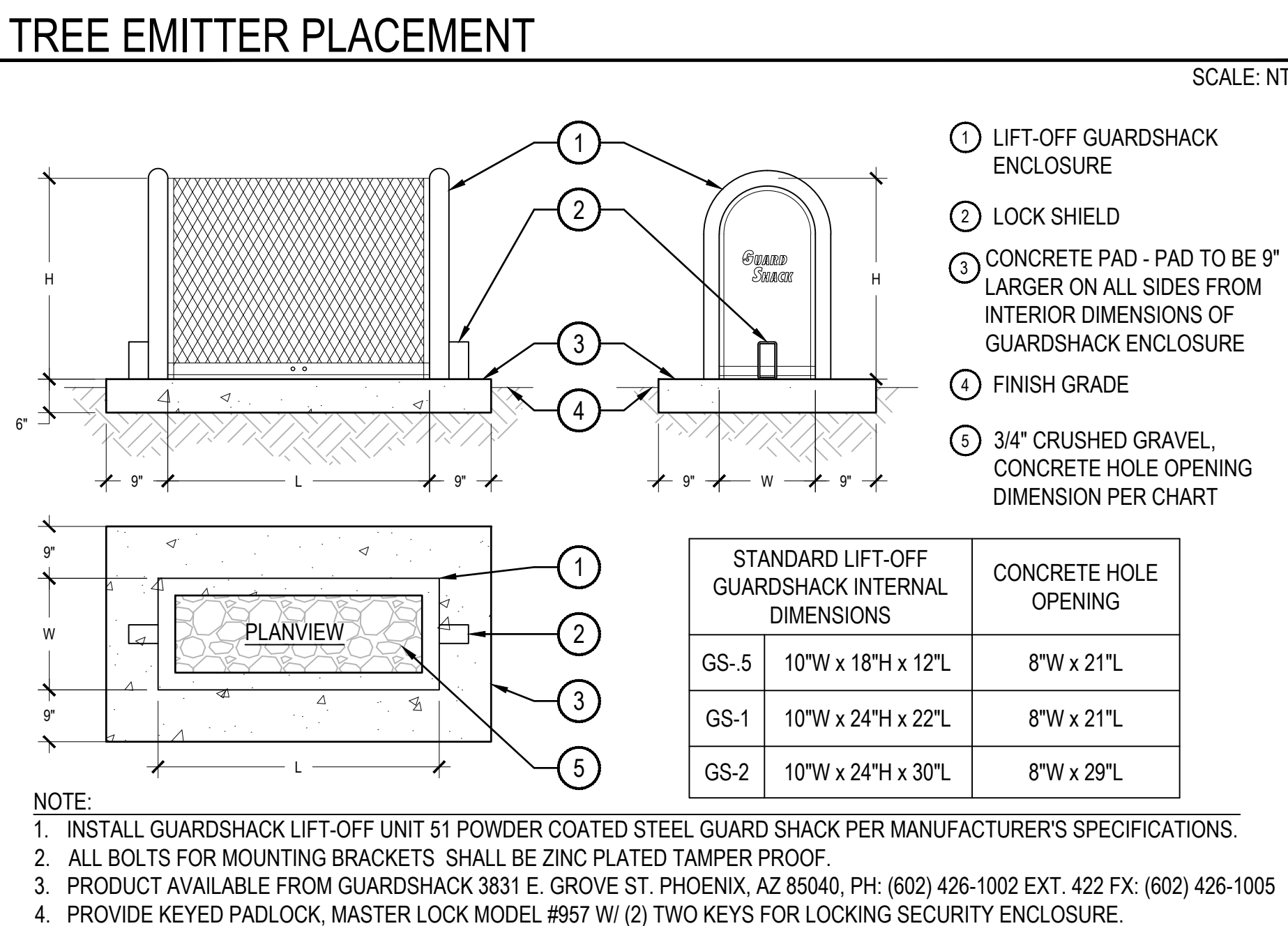
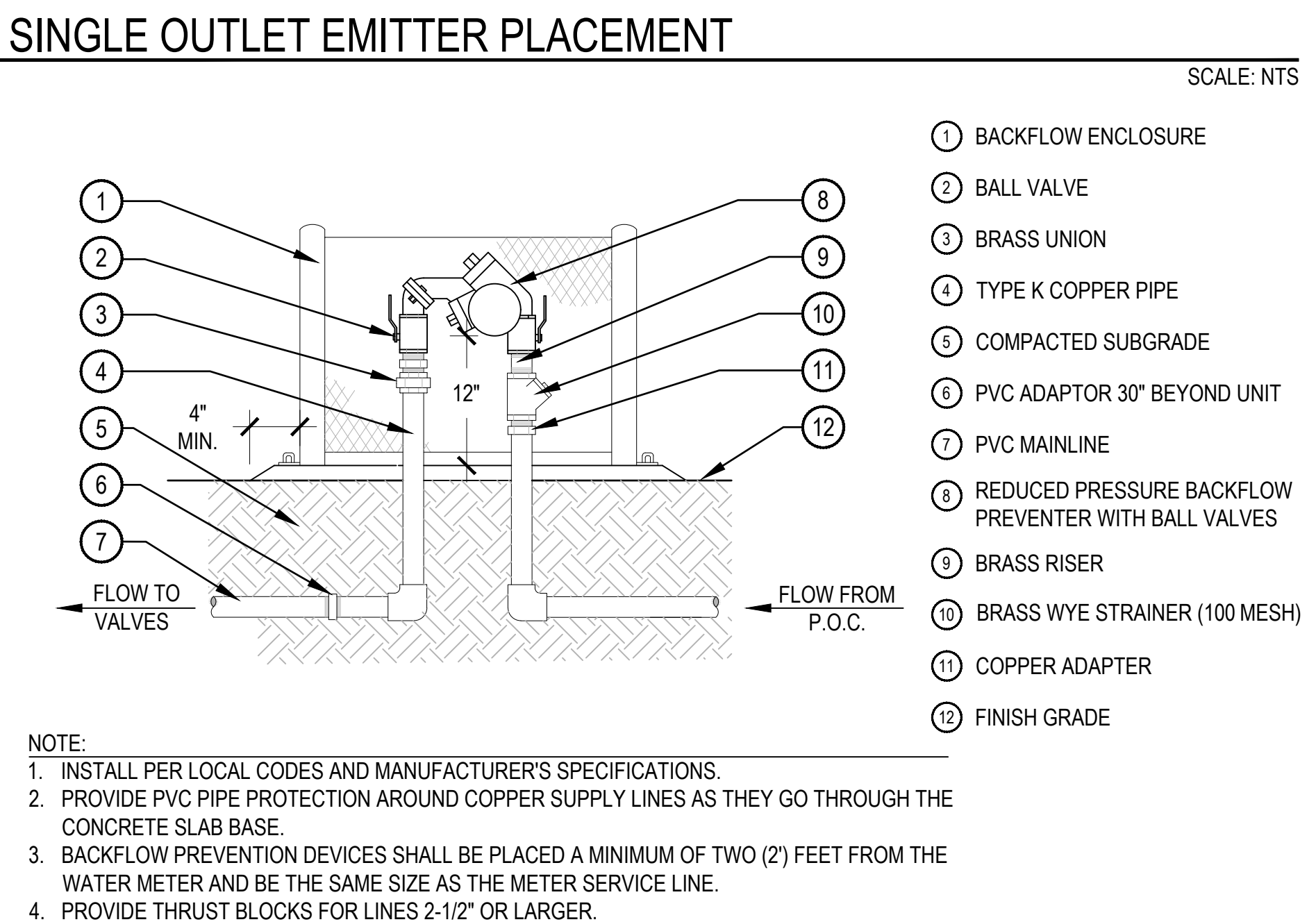
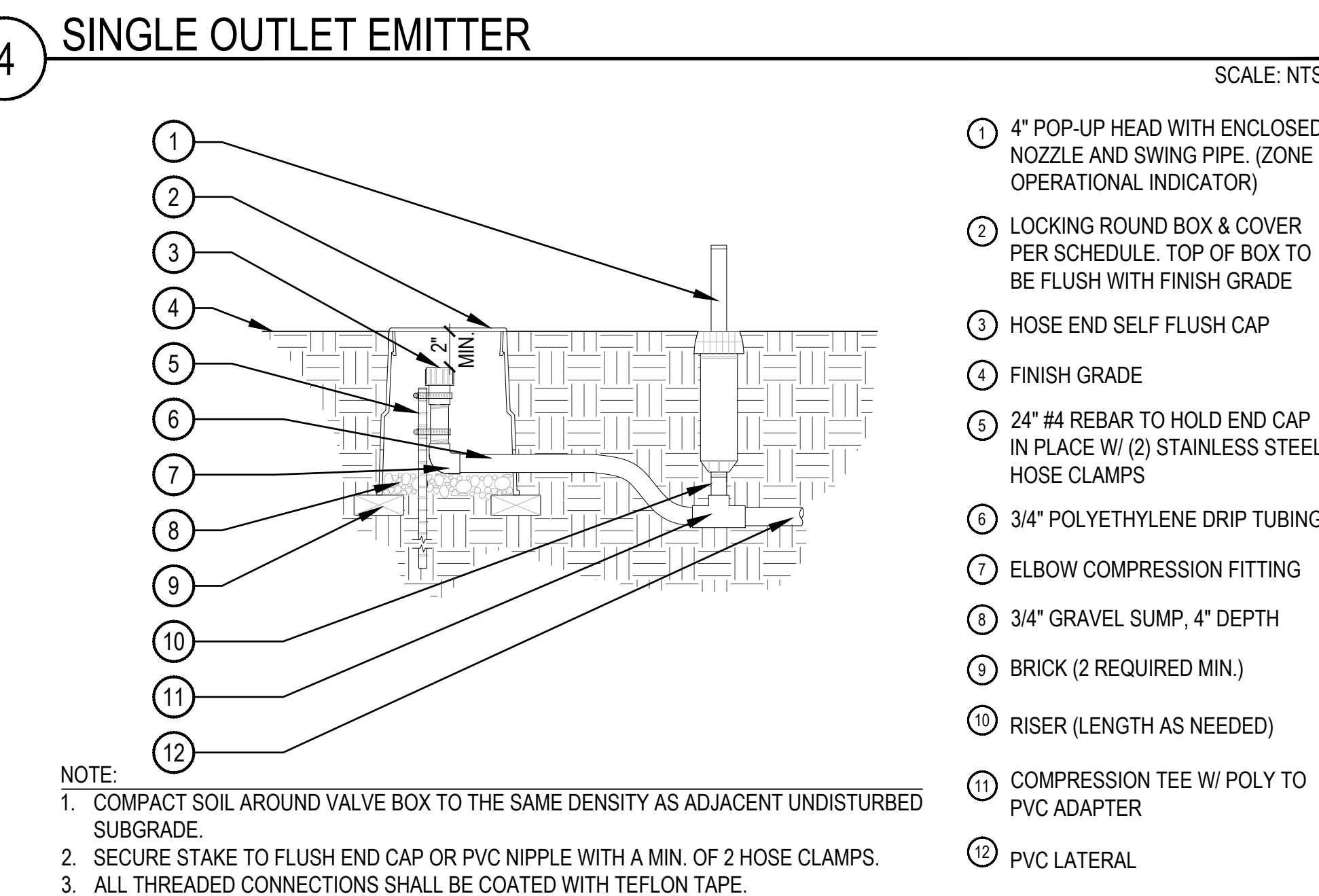
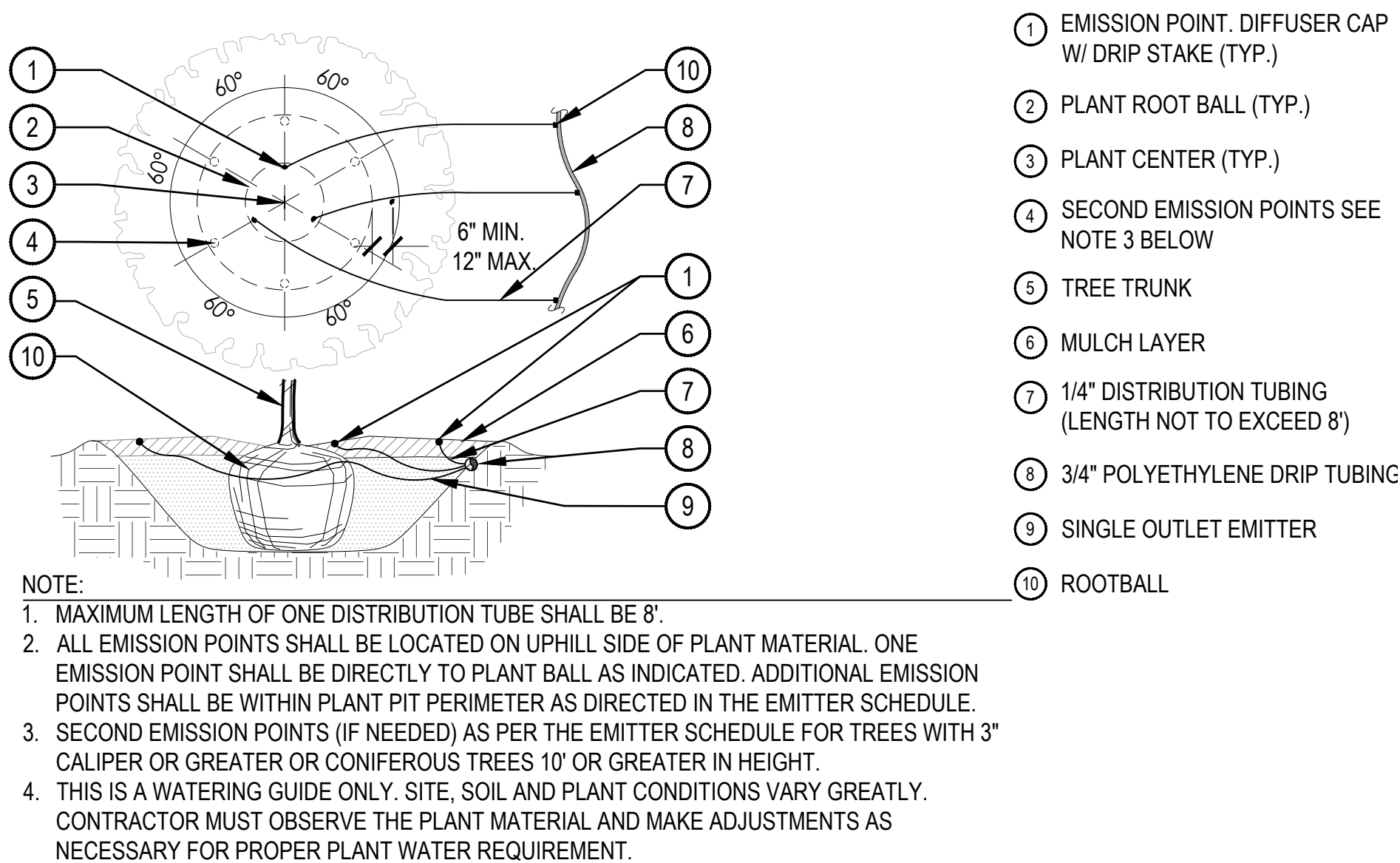
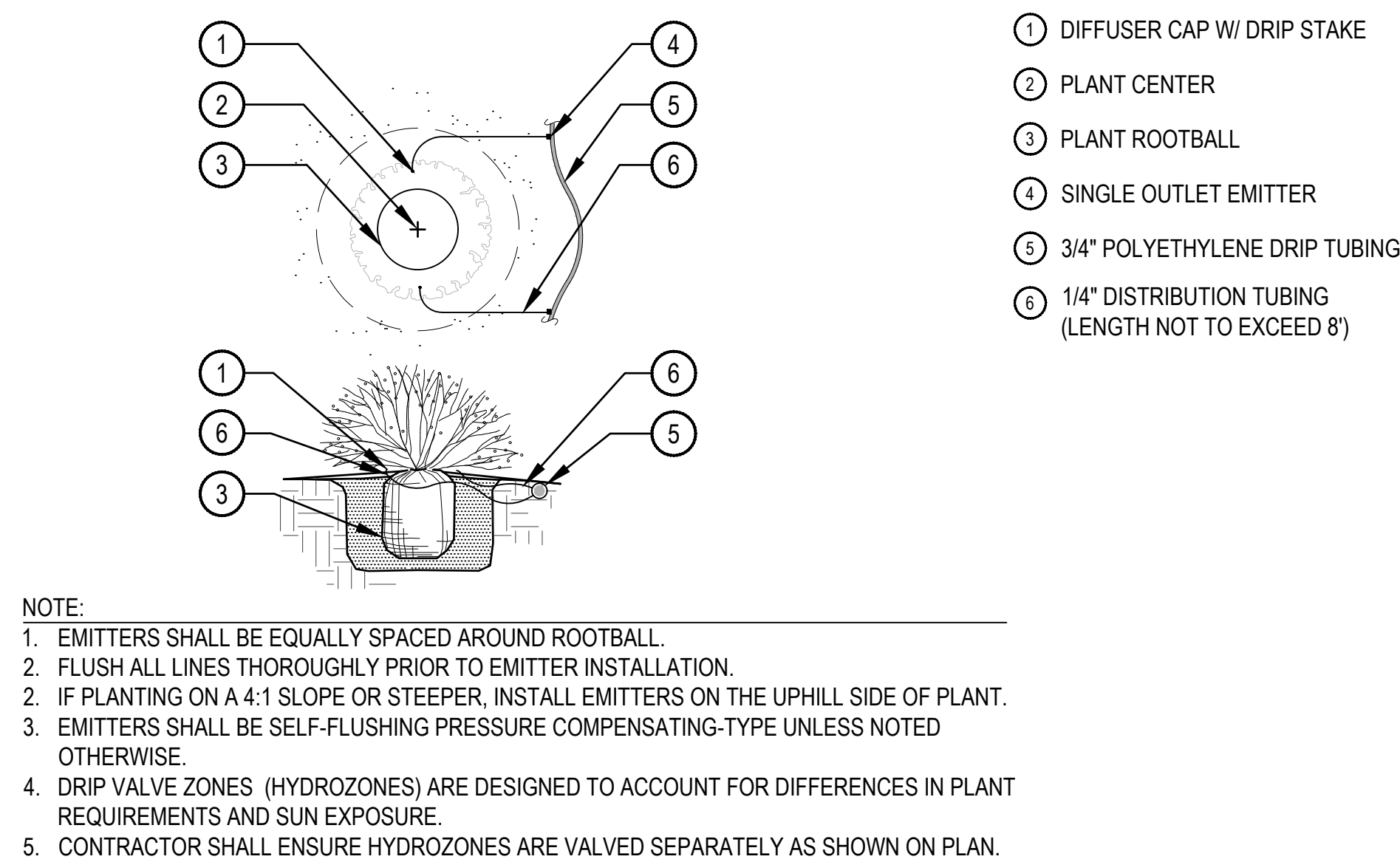
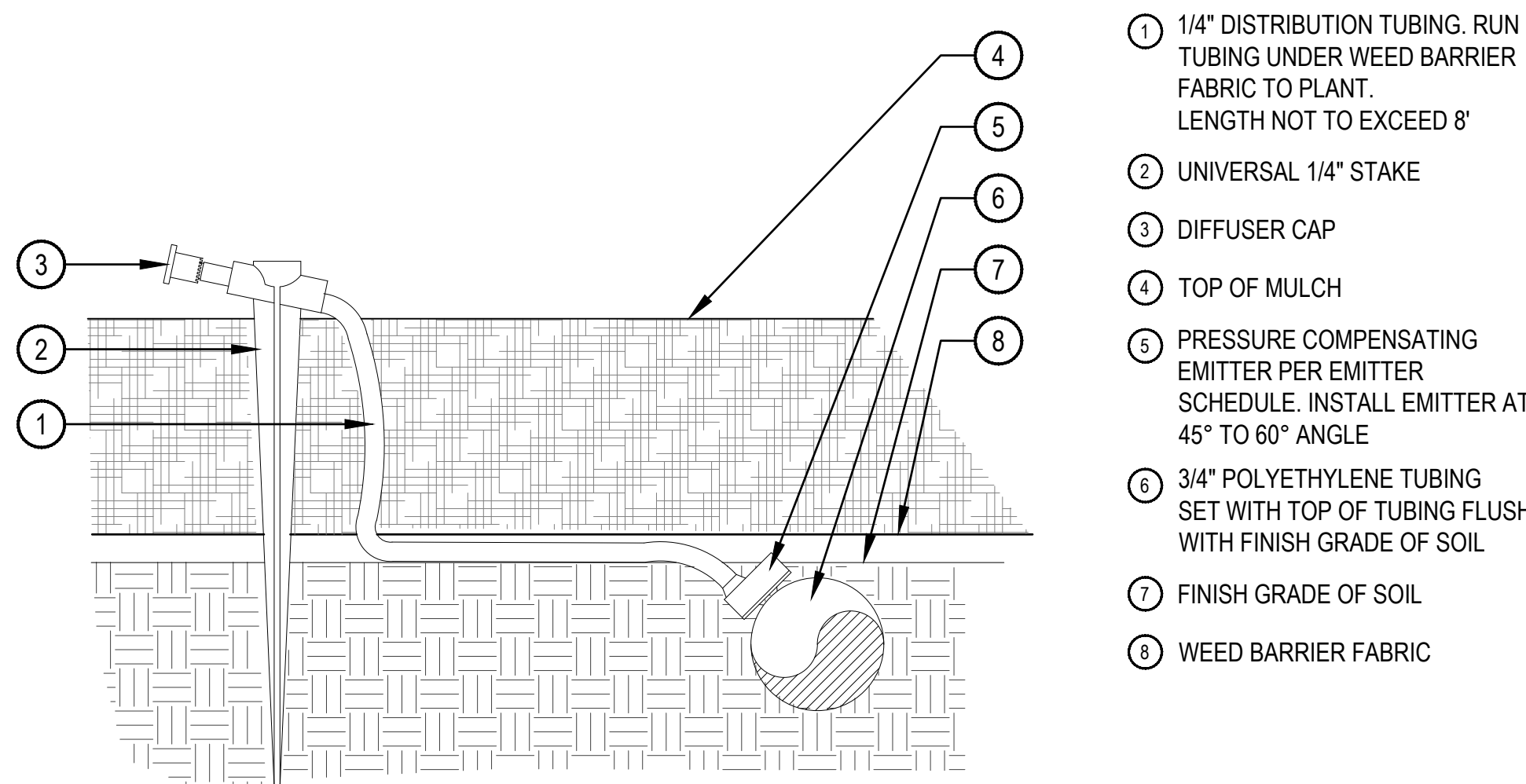
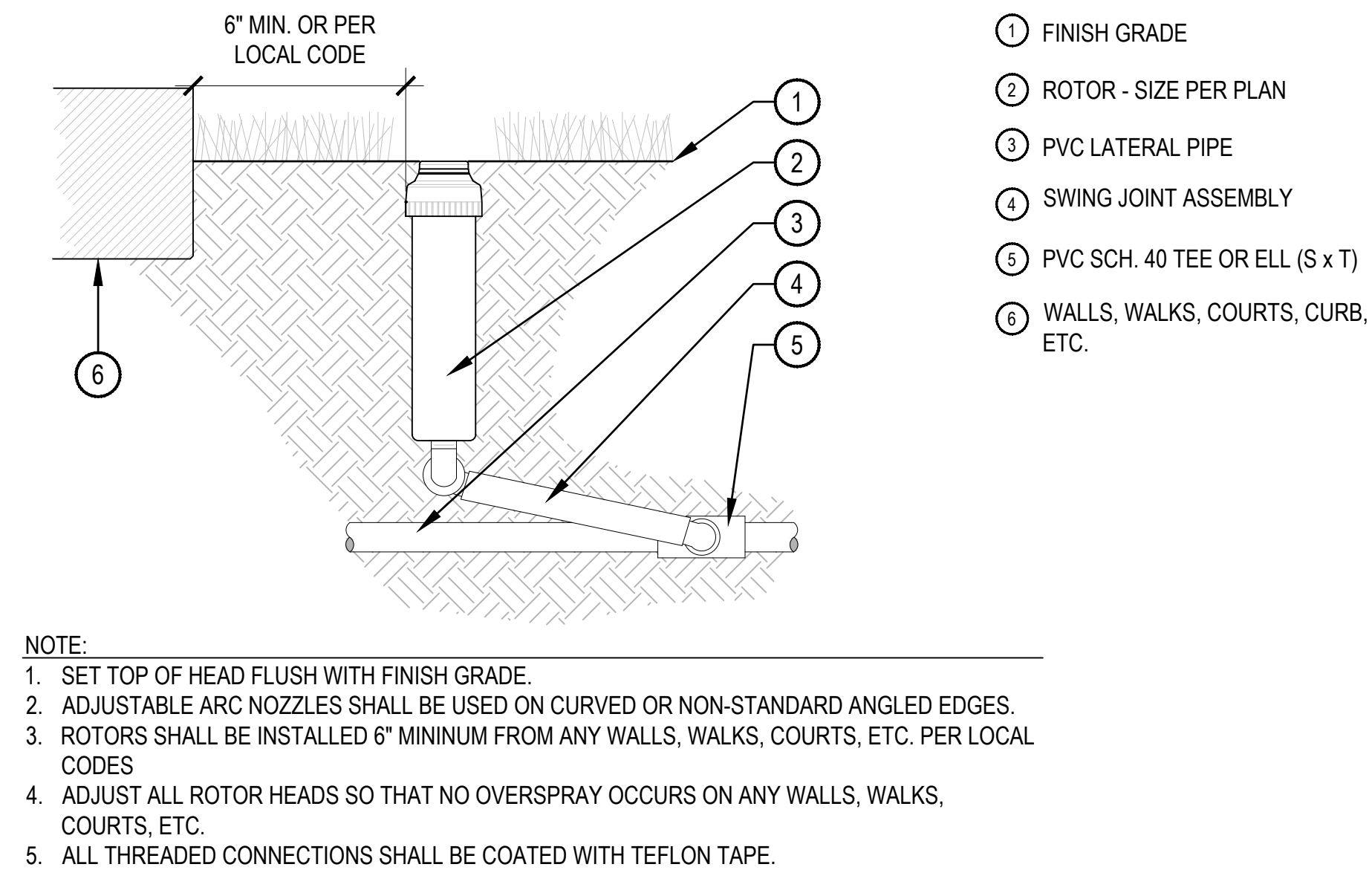
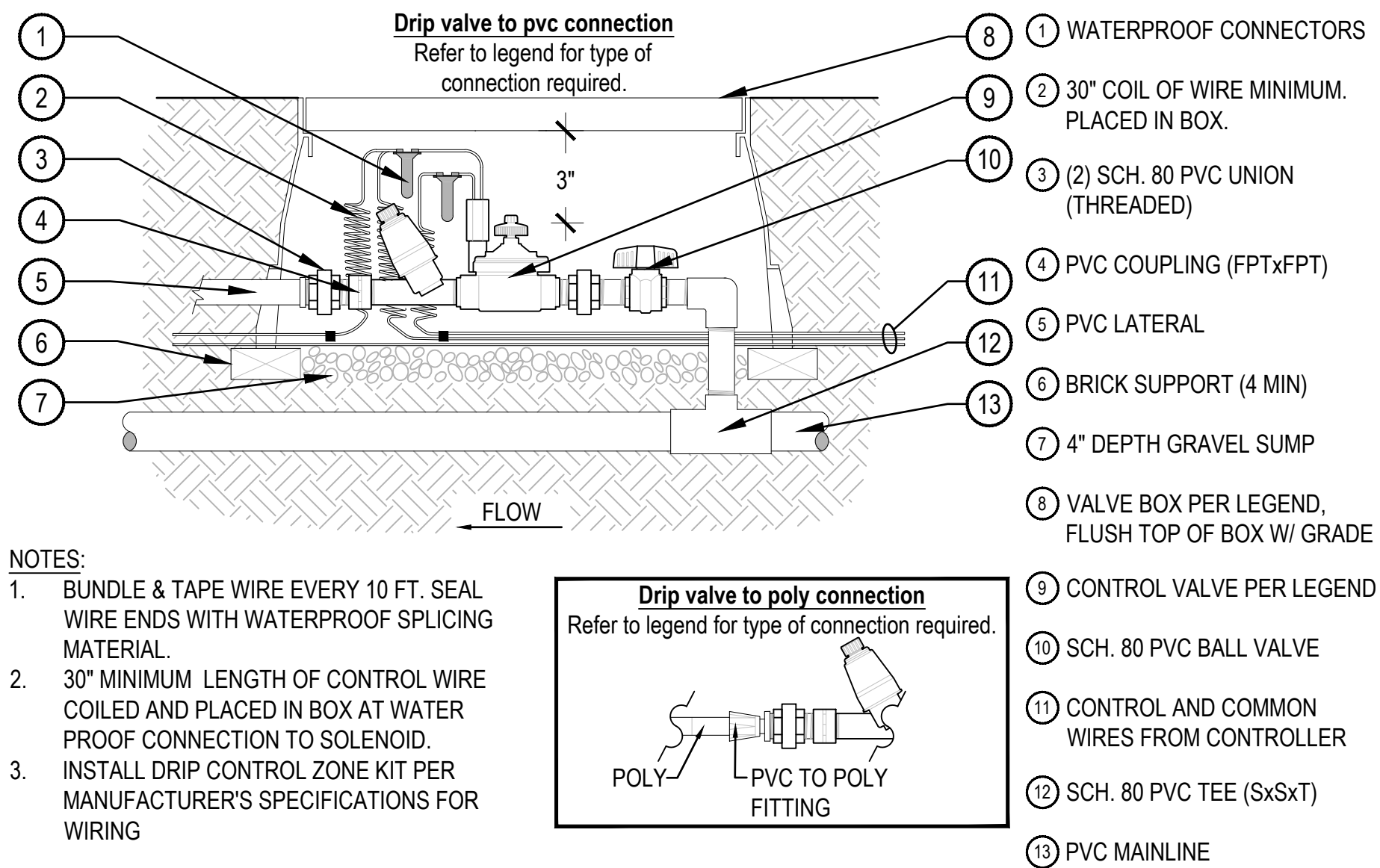
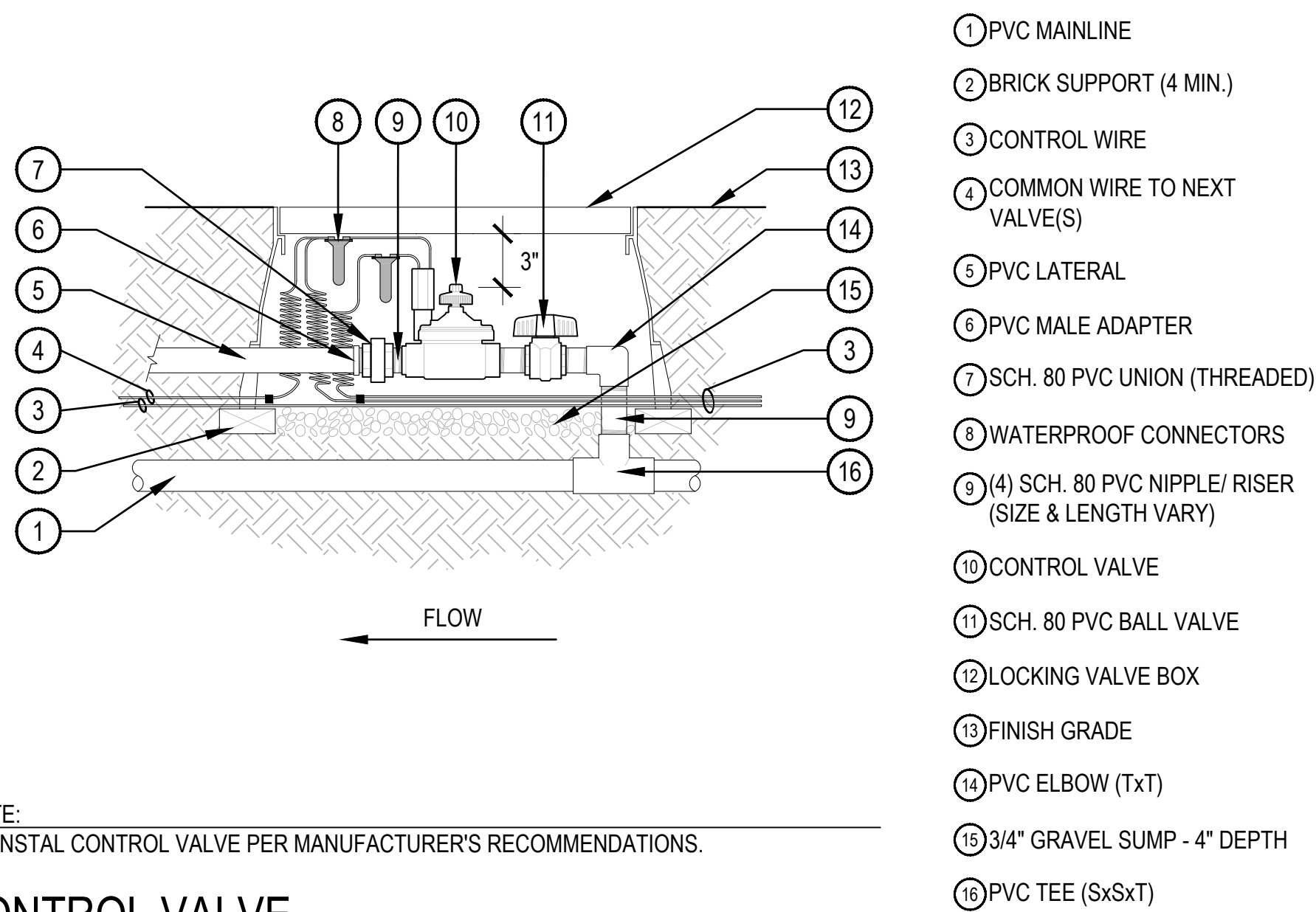
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9 VALVE BOX PLACEMENT

SCALE: NTS



NOTE:
1. INSTALL ONLY ONE RCV TO VALVE BOX. LOCATE AT LEAST 12-INCHES FROM AND ALIGN
WITH NEARBY WALLS OR EDGES OF PAVED AREAS. GROUP RCV ASSEMBLIES TOGETHER
WHERE PRACTICAL.
2. GROUP RCV ASSEMBLIES TOGETHER WHERE PRACTICAL, BUT AVOID GROUPING MORE THAN
THREE (3) STANDARD VALVE BOXES TOGETHER IN A SERIES.
3. ARRANGE GROUPED VALVE BOXES IN RECTANGULAR PATTERNS.



OWNER:

TOWN OF FRISCO
1 EAST MAIN STREET
FRISCO, CO 80443
970.668.5276

NOT FOR
CONSTRUCTION

DATE:

01/17/22: 100 SD

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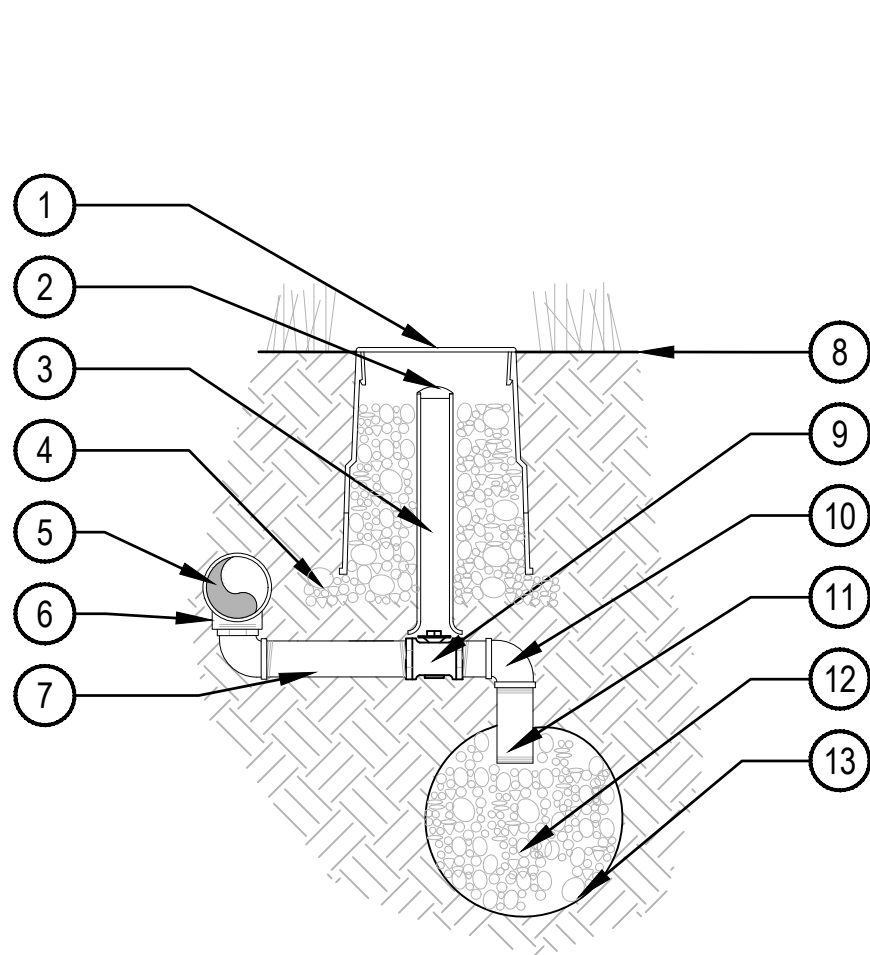
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SHEET TITLE:

IRRIGATION
DETAILS

LI-503



NOTE:

1. ALL THREADED CONNECTIONS SHALL BE COATED WITH TEFLON TAPE.
2. LOCATE DRAIN VALVE AT POINT OF CONNECTION AND AT ALL LOW POINT(S) ALONG THE IRRIGATION MAINLINE AS NEEDED.

- 1 10" LOCKING ROUND BOX & COVER PER SCHEDULE. TOP OF BOX TO BE FLUSH WITH FINISH GRADE.
- 2 2" VALVE MARKER
- 3 2" CL160 PVC ACCESS SLEEVE LENGTH AS REQUIRED.
- 4 3" DEPTH 3/4" CRUSHED GRAVEL 6" BEYOND EDGE OF BOX
- 5 PVC PRESSURE MAIN LINE
- 6 SCH. 80 TEE PER MAINLINE SIZE. ALIGN IN A DOWNWARD POSITION
- 7 SCH. 80 PVC NIPPLE
- 8 FINISH GRADE
- 9 1" BRONZE STOP VALVE WITH SLOTTED KEY OPERATOR
- 10 SCH. 80 PVC ELL
- 11 SCH. 80 PVC NIPPLE
- 12 3/4" GRAVEL SUMP - 1 CU. FT. MIN
- 13 SOIL BLANKET ENCLOSING SUMP AMOCO ENG. FABRIC 4545 - 4.5 OZ. OR EQUAL

SCALE: NTS

1 MANUAL DRAIN VALVE