

# CONSTRUCTION DOCUMENTS FOR TURF REHABILITATION and IRRIGATION REPAIR

TAM VALLEY SCHOOL  
350 BELL LANE, MILL VALLEY, CALIF.

MILL VALLEY SCHOOL DISTRICT  
411 SYCAMORE AVE.  
MILL VALLEY, CA 94941



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Seal



Consultants

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Project

## Turf Rehabilitation and Irrigation Repair

### Tam Valley Elementary School

350 Bell Lane  
Mill Valley, CA 94941

Drawing Title

## TITLE SHEET

Date: May 15, 2018

Job #: 1710

Revisions

Sheet Number

## ABBREVIATIONS

AC	ASPHALT CONCRETE	JT.	JOINT
ADL.	ADDITIONAL	LB.	POUND
ADJ.	ADJUSTABLE	MFR.	MANUFACTURER
AGG.	AGGREGATE	MAT.	MATERIAL
ALT.	ALTERNATE	MAX	MAXIMUM
APPROX.	APPROXIMATE	MECH.	MECHANICAL
ARCH.	ARCHITECT	MED.	MEDIUM
ASPH.	ASPHALT	MIN.	MINIMUM
AUTO.	AUTOMATIC	MISC.	MISCELLANEOUS
BD.	BITUMINOUS	MTG.	MOUNTING
BLDG.	BUILDING	MTL.	MATERIAL
BOT.	BOTTOM	(N)	NEW
BTWN.	BETWEEN	N.I.C.	NOT IN CONTRACT
C.B.	CATCH BASIN	N.T.S.	NOT TO SCALE
C.I.	CAST IRON	NO.	NUMBER
C.I.P.	CAST IN PLACE+	NOM.	NOMINAL
CJ	CONTROL JOINT	O.C.	ON CENTER
CMU	CONCRETE MASONRY UNIT	O.D.	OUTSIDE DIAMETER
CEM.	CEMENT	OPG.	OPENING
CL	CENTER LINE	OPP.	OPPOSITE
CLR.	CLEAR	PSI	POUNDS PER SQUARE INCH
CLMN	COLUMN	PVC	POLYVINYL CHLORIDE
CONC.	CONCRETE	PENN.	PENETRATION
CONN	CONNECTION	PERF.	PERFORMANCE
CONST.	CONSTRUCTION	PL	PROPERTY LINE
SONT.	CONTINUOUS	PLYWD.	PLYWOOD
CONTR.	CONTRACTOR	PR.	PAIR
COORD.	COORDINATE	PRCST.	PRECAST
CTR.	CENTER	PREFAB.	PREFABRICATED
D.F.	DRINKING FOUNTAIN	PT.WD.	PRESSURE TREATED WOOD
DBL.	DOUBLE	QTY.	QUANTITY
DEMO.	DEMOLITION	RAD.	RADIUS
DEPT.	DEPARTMENT	R.C.P.	REINFORCED CONCRETE PIPE
DET.	DETAIL	RDWD.	REDWOOD
DIA.	DIAMETER	REF.	REFERENCE
DIAG.	DIAGONAL	REINF.	REINFORCING
DIAM.	DIMENSION	REQD.	REQUIRED
DN.	DOWN	REV.	REVISION
DWG.	DRAWING	S.F.	SQUARE FOOT
(E)	EXISTING	S.J.	SCORE JOINT
EXIST.	EXISTING	S.M.	SHEET METAL
EJ	EXPANSION JOINT	S.Y.	SQUARE YARD
E.S.	EACH SIDE	SCH.	SCHEDULE
E.W.	EACH WAY	SHT.	SHEET
EA.	EACH	SIM	SIMILAR
ELEV.	ELEVATION	SPAC.	SPACING
ENCL.	ENCLOSURE	SPEC.	SPECIFICATION
ENGR.	ENGINEER	SQ.	SQUARE
EQ.	EQUAL	STA	STATION
EQUIP.	EQUIPMENT	STD	STANDARD
ETC.	ETCETERA	STL.	STEEL
EXP.	EXPANSION	STOR.	STORAGE
EXT.	EXTERIOR	STRUCT.	STRUCTURAL
FDN	FOUNDATION	SYM.	SYMMETRICAL
FIN.	FINISH	SYS.	SYSTEM
FR.	FROM	T.C.	TOP OF CURB
FT.	FOOT	T.O.	TOP OF
FUT.	FUTURE	T.O.P.	TOP OF PAVING
GA	GAUGE	T.O.W.	TOP OF WALL
GALV.	GALVANIZED	TEMP.	TEMPORARY
GND.	GROUND	THK.	THICK
H.B.	HOSE BIBB	TYP.	TYPICAL
H.P.	HIGH POINT	V.I.F.	VERIFY IN FIELD
HDR.	HEADER	VERT.	VERTICAL
HORIZ.	HORIZONTAL	W/	WITH
HT.	HEIGHT	W.O.	WHERE OCCURS
I.D.	INSIDE DIAMETER	W.P.	WATER PROOF
IN.	INCH	W.W.M.	WELDED WIRE MESH
INCL.	INCLUDE	W/O	WITHOUT
INV.	INVERT	WT.	WEIGHT

## GENERAL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LAYOUT AND MEASUREMENTS AS NOTED IN THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEYING AND FIELD ENGINEERING NECESSARY TO ESTABLISH THE LINES AND GRADE STAKES.
- BEFORE COMMENCING WORK UNDER THIS CONTRACT NOTIFY USA, UNDERGROUND SERVICE ALERT, AT 1-800-227-2600. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PIPES AND STRUCTURES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE SAID UTILITIES.
- CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- THE CONTRACTOR SHALL EXAMINE THE SITE, COMPARE IT WITH THE DRAWINGS AND SPECIFICATIONS, CAREFULLY EXAMINE ALL OF THE CONTRACT TO BE PERFORMED BEFORE ENTERING INTO THIS CONTRACT. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE ON BEHALF OF THE CONTRACTOR ON ACCOUNT OF AN ERROR ON HIS PART OR HIS NEGLIGENCE OR FAILURE TO AQUAINT HIMSELF WITH THE CONDITIONS OF THE SITE.
- THE CONTRACTOR SHALL FIELD VERIFY ALL JOB CONDITIONS AND DIMENSIONS SHOWN ON THE PLANS. ANY VARIATIONS THERE OF FROM THE DRAWINGS MUST BE REPORTED TO THE SCHOOL REPRESENTATIVE.
- CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH CALTRANS "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES".
- UPON COMPLETION OF FINAL PUNCH LIST ITEMS, RECORD PLANS, PREPARED BY THE CONTRACTOR SHALL BE PROVIDED TO THE SCHOOL. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL SIGN A STATEMENT OF COMPLIANCE, VERIFY THAT ALL MATERIALS AND EQUIPMENT ARE INSTALLED PER PLAN AND ARE IN GOOD OPERATING ORDER. REFER TO SPECIFICATIONS FOR MAINTENANCE PERIOD REQUIREMENTS.
- AN INVENTORY OF EXISTING IMPROVEMENTS SHALL BE SUBMITTED FOR ALL AREA. THIS IS TO DOCUMENT CONDITION OF EXISTING IMPROVEMENTS UPON THE CONTRACTOR'S ARRIVAL. INFORMATION SHALL INCLUDE: TREES, RETAINING WALLS, EXISTING CATCH BASINS, ROAD SIGNS, CURBING, UTILITY BOXES AND MANHOLES.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING STORMWATER POLLUTION PREVENTION BMP'S AS REQUIRED BY THE STATE REGIONAL WATER QUALITY BOARD DURING THE COMPLETION OF THIS CONTRACT. CONTRACTOR SHALL HAVE ONSITE, MATERIALS NECESSARY TO PROVIDE STORMWATER RUNOFF PROTECTION DURING A STORM EVENT. THIS PROJECT IS EXPECTED TO BE COMPLETED BEFORE THE OCTOBER 15 RAINY SEASON. IF DELAYS OCCUR THAT ARE CONTRACTOR RELATED AND NOT DUE TO SCHOOL DISTRICT ISSUES, ALL SWPPP RELATED COSTS SHALL BORN BY THE CONTRACTOR AT NO COST TO THE DISTRICT.

## PROJECT DIRECTORY

CLIENT  
**MILL VALLEY SCHOOL DISTRICT**  
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MILL VALLEY, CA 94941  
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## PROJECT SCOPE

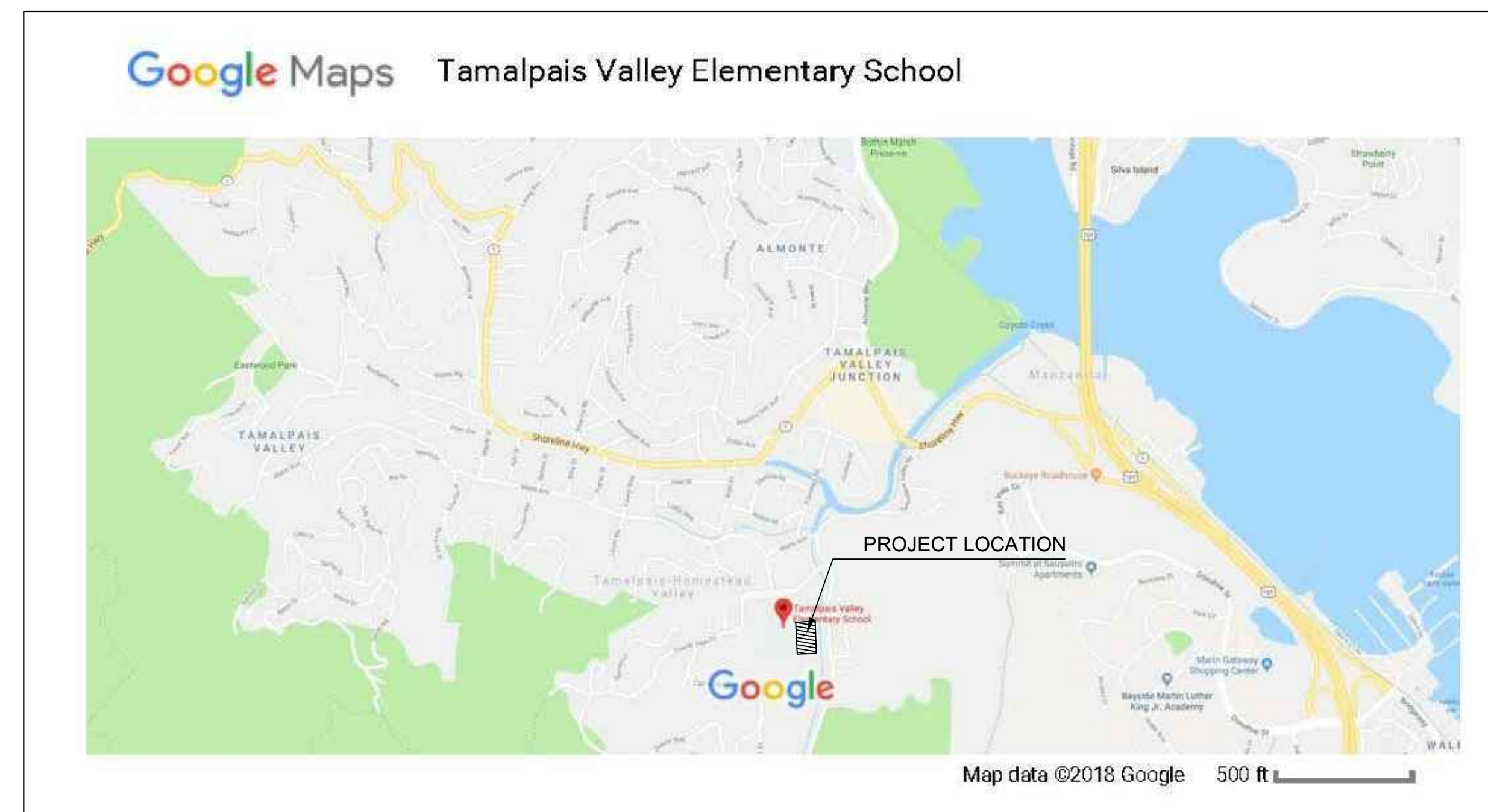
DEMOLITION OF EXISTING TURF AT THE SCHOOL ATHLETIC FIELD, GRADING, DRAINAGE IMPROVEMENTS, INSTALLATION OF SOIL AMENDMENTS, NEW IRRIGATION EQUIPMENT, SOD TURF, AND DECOMPOSED GRANITE PAVING.

**BUILDING CODE**  
2013 CBC

ADAAG 2013

## DRAWING LIST

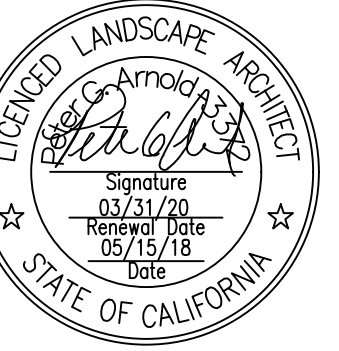
NO.	SHEET	SHEET TITLE
1.	T-1	TITLE SHEET
2.	D-1	DEMOLITION PLAN
3.	I-1	IRRIGATION PLAN
4.	I-2	IRRIGATION DETAIL
5.	L-1	GRADING AND LAYOUT PLAN
6.	L-2	CONSTRUCTION DETAILSS



## VICINITY MAP



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**DEMOLITION PLAN**

Date: May 15, 2018

Job #: 1710

Revisions

Sheet Number

**D-1**




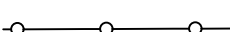
2 Of 6 Sheets



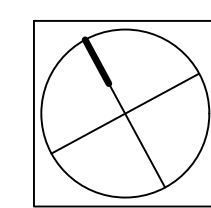
**DEMOLITION NOTES**

1. CONTRACTOR SHALL SUPPLY ALL NECESSARY TEMPORARY FENCING TO SECURE THE JOB SITE AND STORAGE FOR EQUIPMENT DURING CONSTRUCTION OPERATIONS. FENCING SHALL BE 6' MIN. HEIGHT CHAINLINK WITH WIND SCREEN FABRIC. LOCATION OF FENCING SHALL BE IN LOCATIONS SHOWN AND SHALL NOT IMPEDE ACCESS ON EXISTING PATHWAYS. CONTRACTOR TO PROVIDE LOCKABLE GATES FOR ACCESS TO CONSTRUCTION ZONE AS REQUIRED.
2. DURING TRUCKING OPERATIONS, THE CONTRACTOR SHALL PROVIDE FULL TRAFFIC CONTROL, FLAG MEN, AND NOTIFICATIONS DURING THOSE OPERATIONS. COORDINATE TRUCKING OPERATIONS WITH SCHOOL STAFF. THESE OPERATIONS ARE NOT TO OCCUR DURING STUDENT DROP OFF AND PICK UP HOURS.
3. CONTRACTOR SHALL MEET ONSITE WITH SCHOOL STAFF PRIOR TO DEMOLITION TO REVIEW LAYOUT.
4. CONTRACTOR SHALL NOTIFY STAFF AND DESIGNER OF ANY DISCREPANCIES BETWEEN THE PLANS AND SITE CONDITIONS PRIOR TO DEMOLITION.
5. ALL REFUSE RESULTING FROM DEMOLITION SHALL BE OFF HAULED AND DISPOSED OF IN A LEGAL AND PROPER MANNER, FOLLOWING ALL STATE AND LOCAL ORDINANCES.
6. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING UTILITY LINES. CONTRACTOR TO CONTACT THE APPROPRIATE UTILITY AND SCHOOL STAFF IF UTILITY CONFLICTS OCCUR DURING DEMOLITION.
7. CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT INDICATED FOR REMOVAL WITHIN THE PROJECT SITE AND IS RESPONSIBLE FOR REPLACEMENT OF ITEMS DAMAGED DURING THE INSTALLATION OF THE PROJECT AT THE CONTRACTORS EXPENSE, (LABOR, MATERIALS AND PROFIT INCLUDED).
8. CONTRACTOR IS RESPONSIBLE FOR RECORDING EXISTING CONDITIONS PRIOR TO COMMENCING AND IS TO PROVIDE A COPY OF RECORDED INFORMATION TO THE DISTRICT.
9. CONTRACTOR SHALL COORDINATED WITH SCHOOL STAFF AND PROVIDE SIGNS, BARRIERS AND PERSONNEL NECESSARY TO FACILITATE SAFE PATHWAY CLOSURES.

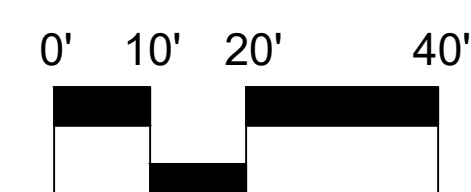
**DEMOLITION LEGEND**

-  SOD TURF AREA, (48,140 SF., REMOVE/TILL IN TO EXISTING SOIL TO A DEPTH OF 12").
-  SOD TURF/GRAVEL, REMOVE AND EXCAVATE AS REQUIRED FOR INSTALLATION OF DECOMPOSED GRANITE PAVING, (1,650 S.F.)
-  EXISTING IRRIGATION HEAD, LOCATE AND REMOVE/PROTECT DURING DEMOLITION OPERATIONS.
-  APPROXIMATE LOCATION OF CONSTRUCTION FENCING

**DEMOLITION PLAN**



North





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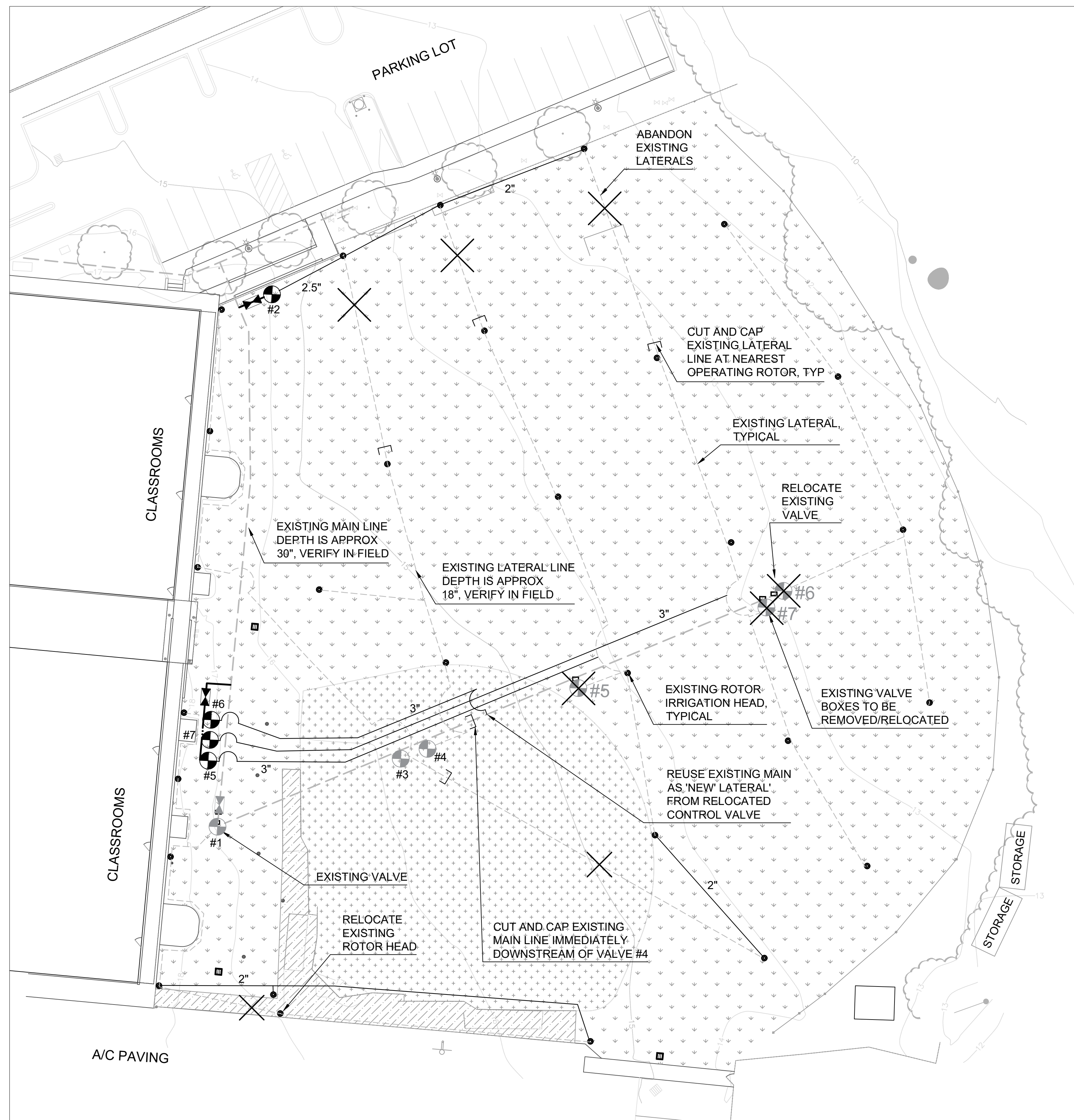
**IRRIGATION PLAN**

Date: May 15, 2018

Job #: 1710

Revisions

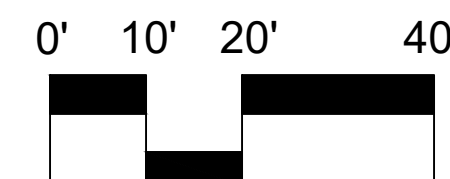
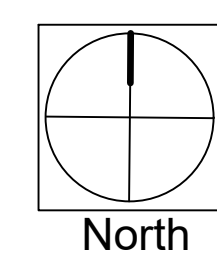
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LATERAL LINE SIZING CHART (unless noted otherwise)

SPRINKLER TYPE	GALLONS PER MINUTE	PIPE SIZE
SPRAYS & BUBBLERS	1-5	3/4"
	6-10	1"
	11-18	1 1/4"
	19-25	1 1/2"
SPRAYS & ROTORS	26-45	2"
	45-65	2 1/2"
	65-100	3"

**IRRIGATION PLAN**



**IRRIGATION NOTES**

1. THE IRRIGATION SYSTEMS INDICATED IN THESE DRAWINGS REQUIRES THE INSTALLATION OF A NEW VALVE, RELOCATION OF 3 EXISTING REMOTE CONTROL VALVES, ADJUSTMENT OF ALL ROTORS TO THE NEW DESIGN ELEVATIONS AND THE INSTALLATION OF NEW LATERAL LINES MAINLINE AND ISOLATION VALVES.
2. VALVES 1, 3 AND 4 ARE TO REMAIN IN PLACE, VALVES 5, 6, AND 7 ARE TO BE REPLACED AS INDICATED, PROVIDE A NEW REMOTE CONTROL VALVE (#2), ADD ISOLATION VALVES AS INDICATED.
3. PROVIDE INSTALLATION BY PERSONS FAMILIAR WITH IRRIGATION WORK AND UNDER THE SUPERVISION OF A QUALIFIED SUPERVISOR.
4. LOCATE AND PROTECT NEW AND EXISTING UTILITIES PRIOR TO EXCAVATION.
5. DO NOT DAMAGE EXISTING UTILITIES PAVING OR STRUCTURES, CONTRACTOR TO PROVIDE THE NECESSARY REPAIRS AT NO ADDITIONAL COST TO THE CITY.
6. REMOVE DEBRIS AND ACCUMULATION OF DEBRIS AS A RESULT OF IRRIGATION CONSTRUCTION FROM THE SITE AND LEAVE AREA IN A CLEAN CONDITION ACCEPTABLE TO TOWN'S REPRESENTATIVE
7. THESE DRAWINGS ARE DIAGRAMMATIC. EQUIPMENT SHOWN IN PAVING IS FOR CLARITY ONLY, INSTALL ALL SPECIFIED EQUIPMENT IN PLANTING AREAS.
8. LEAVE A 36" LONG 1" DIAMETER COIL OF EXCESS WIRE AT EACH SPLICE.
9. PLASTIC VALVE BOXES ARE TO BE GREEN IN COLOR WITH BOLT DOWN, NON-HINGED COVER MARKED PER SPECIFICATION. BOX BODY SHALL HAVE KNOCK OUTS. MANUFACTURER: CARSON, NDS OR APPROVED EQUAL.
10. FLUSH ALL PIPE OF ALL DELETERIOUS MATERIAL.
11. CONTRACTOR TO PROVIDE PRESSURE TESTS FOR MAINLINE, (200 PSI, 2 HOURS) AFTER INSTALLATION OF VALVES.
12. THIS CONTRACT WORK INCLUDES, BUT NOT NECESSARILY LIMITED TO, PROVIDING MATERIALS AND INSTALLATION OF MAINLINE, CONTROL WIRE, RCV'S, LATERALS, ROTOR HEADS.
13. THIS IRRIGATION SYSTEM IS DESIGNED TO OPERATE AT 60 PSI. MAXIMUM FLOW RATE IS 65.0 GPM.
14. ALL EXISTING and PROPOSED UTILITY IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, PG&E, TELEPHONE, LIGHTING, AND/OR, DRAINAGE SHALL BE LOCATED AND VERIFIED PRIOR TO INSTALLATION OF ANY IRRIGATION EQUIPMENT. UTILITIES DAMAGED DURING THE EXECUTION OF THIS CONTRACT ARE TO BE REPAIRED AND OR REPLACED TO THEIR ORIGINAL CONDITION.

**IRRIGATION LEGEND**

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	SIZE
	STREAM ROTOR HEAD (EXISTING)	HUNTER	I-40-04-SS, STANDARD, 4" SS RISER	
	ISOLATION VALVE, (RES. SEAT GATE)	KENNEDY	KS-FW 8597 SS	MAINLINE SIZED
	QUICK COUPLING VALVE	RAINBIRD	44 NP	
	AUTOMATIC VALVE	RAINBIRD	EFB-CP-PRS D	2"
	EXISTING AUTOMATIC VALVE			
	REMOVE EXISTING AUTOMATIC VALVE, CAP MAINLINE AS REQUIRED.			
	EXISTING ISOLATION VALVE			
	LATERAL LINE	SCHEDULE 40		SEE PLAN
	NEW MAIN LINE	SCHEDULE 40		3" TYP
	CONTROL WIRE	14G		SEE PLAN
	EXISTING LATERAL LINE			
	EXISTING MAIN LINE			

#1 ——— VALVE NUMBER

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Drawing Title

**IRRIGATION PLAN**

Date: May 15, 2018

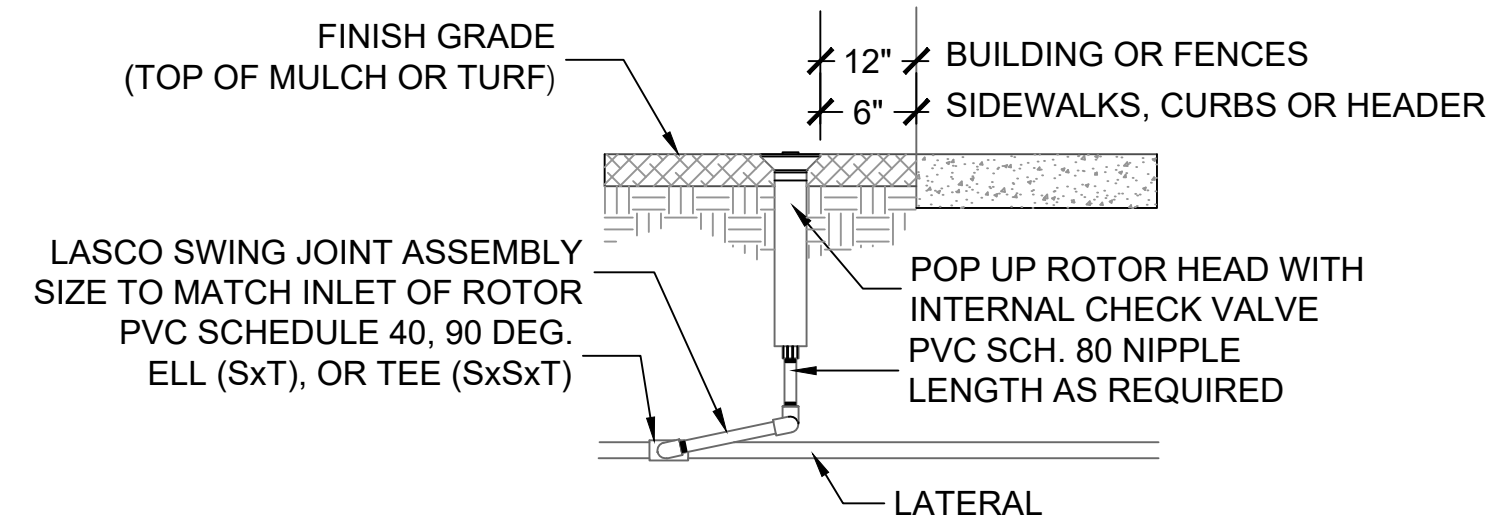
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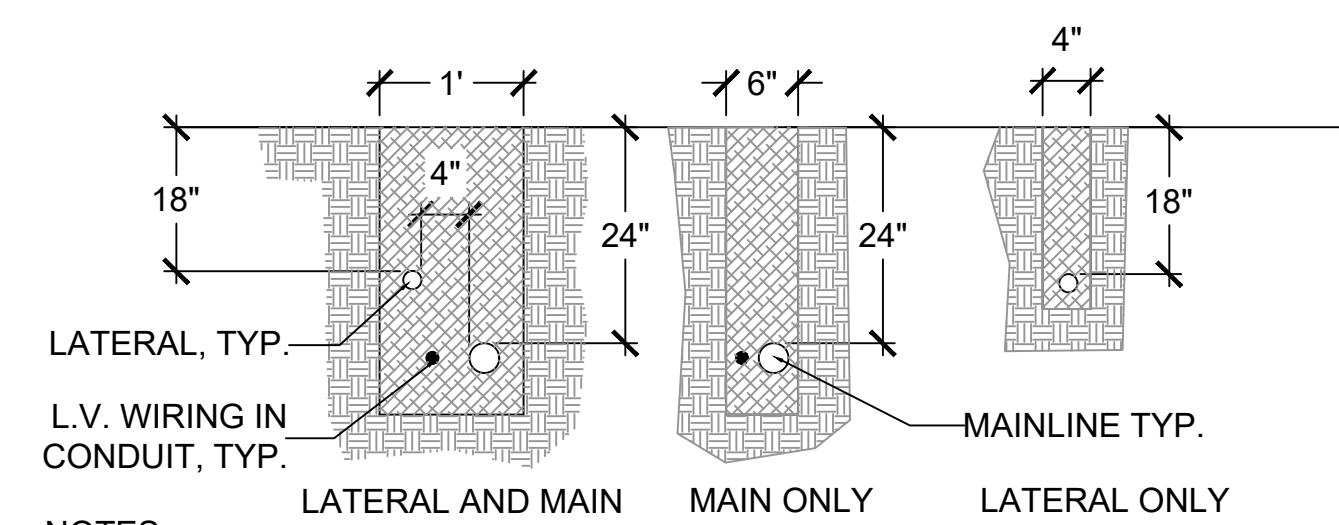
Sheet Number

NOTES:

1. TOP OF HEAD TO BE FLUSH WITH SIDEWALK, CURB OR HEADERBOARD
2. ALL THREADED JOINTS TO RECEIVE TEFLON TAPE



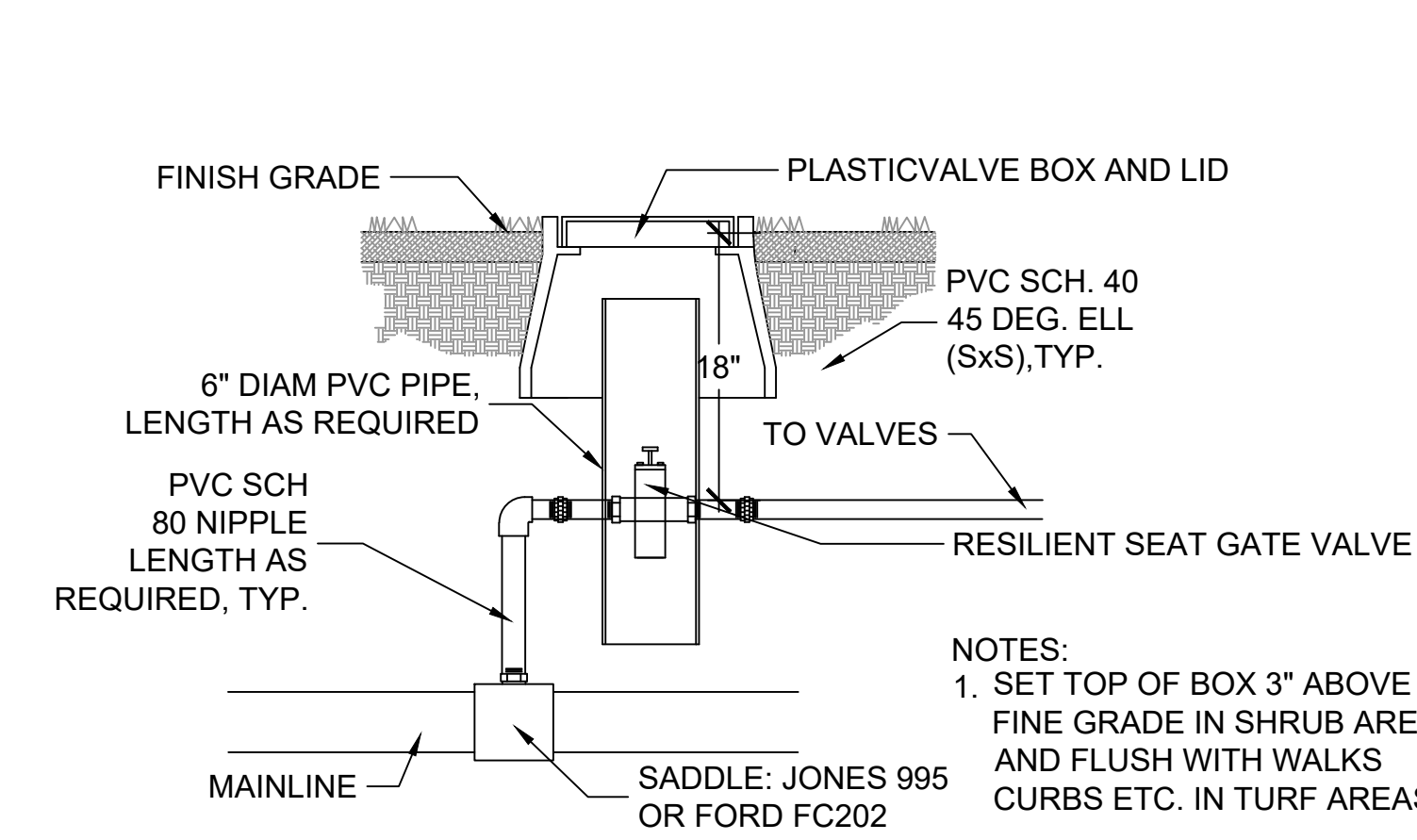
**1 POP UP ROTOR IRRIGATION HEAD**



NOTES:

1. INSTALL 3" WIDE DETECTABLE WARNING TAPE 12" MIN. ABOVE MAINLINE.
2. SALVAGED EXCAVATED FILL COMPACTED TO ORIGINAL DENSITY IN ALL LANDSCAPED AREA, ALL OTHER AREAS SHALL BE AT 95% COMPACTION.
3. FOR ALL SLEEVES, 18" COVER MIN. PROVIDE 90ELL AT BOTH ENDS AND EXTEND CAPPED, SLEEVE DIAMETER PIPE TO SURFACE.
4. IN THE EVENT OF AN IRRIGATION LINE CONFLICTING WITH A DRAIN LINE, THE DRAIN LINE HAS PRIORITY. IF PROPER COVERAGE CANNOT BE ATTAINED ABOVE THE DRAIN LINES, THE IRRIGATION PIPES AND SLEEVES WILL BE INSTALLED BENEATH THE DRAIN LINE WITH 2" MIN. SEPARATION.

**2 TRENCHING**



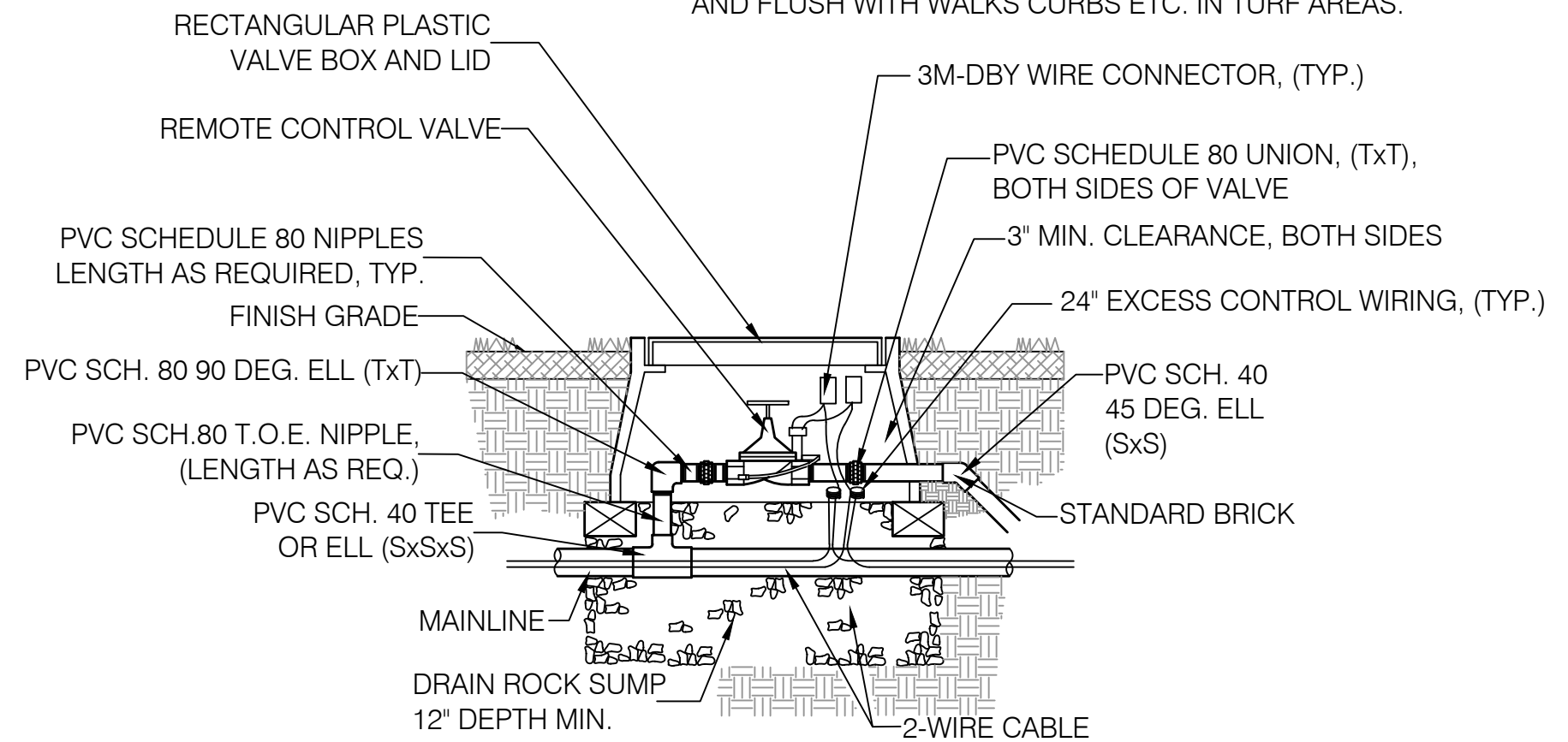
NOTES:

1. SET TOP OF BOX 3" ABOVE FINE GRADE IN SHRUB AREAS AND FLUSH WITH WALKS CURBS ETC. IN TURF AREAS.

**3 ISOLATION VALVE**

NOTES:

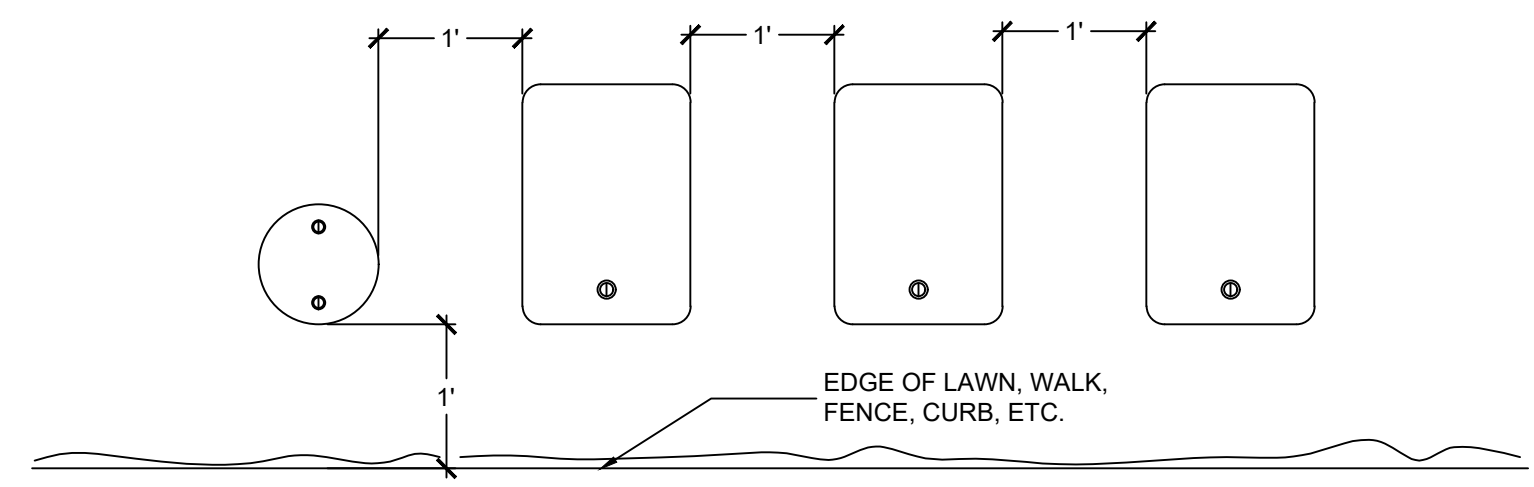
1. INSTALL STANDARD BRICK UNDER EACH CORNER.
2. SET TOP OF BOX 3" ABOVE FINE GRADE IN SHRUB AREAS AND FLUSH WITH WALKS CURBS ETC. IN TURF AREAS.



**4 REMOTE CONTROL VALVE**

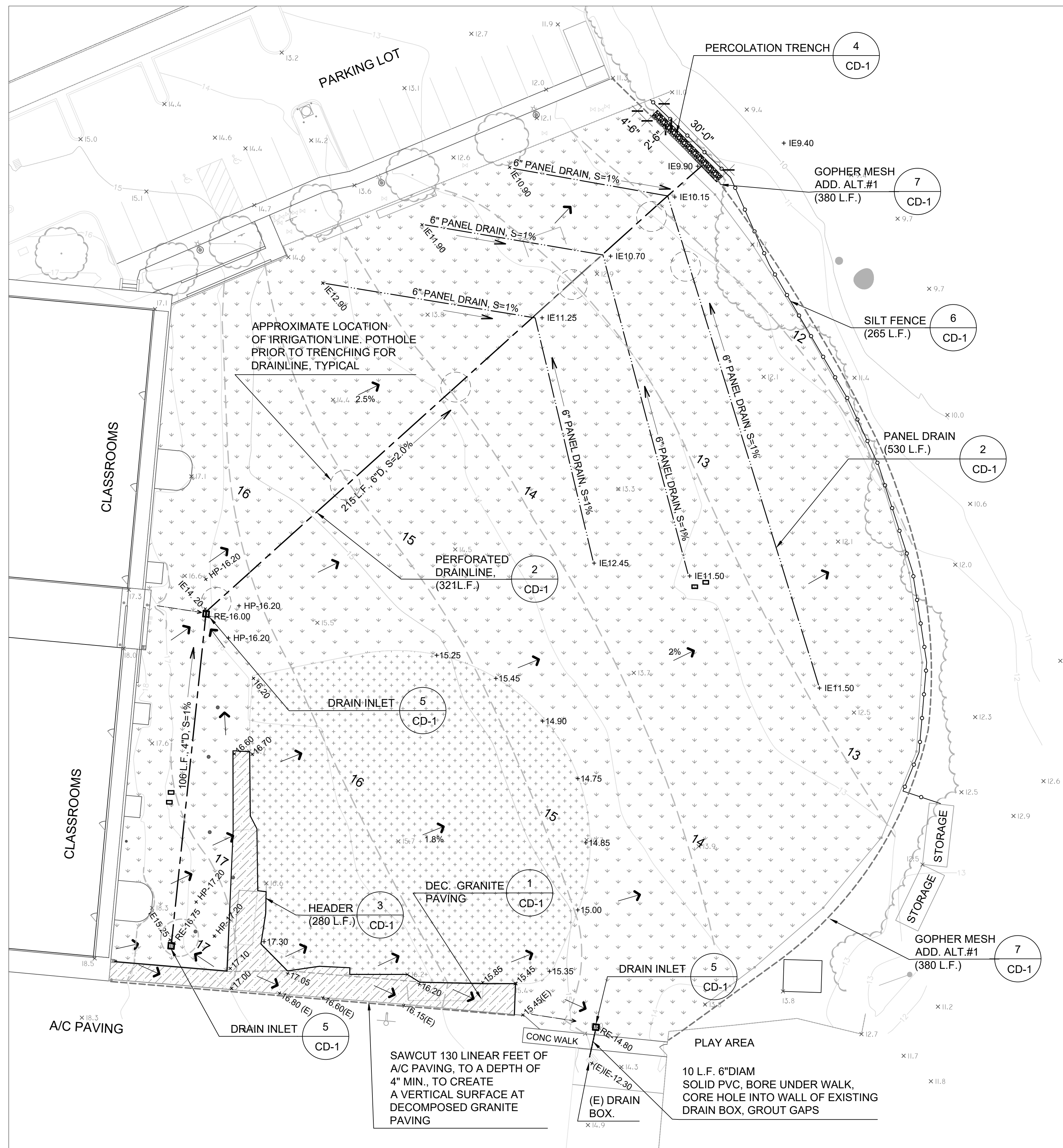
NOTES:

1. ALL VALVE BOXES AND LIDS TO BE PLASTIC.
2. CENTER VALVE BOX OVER EQUIPMENT ASSEMBLY TO FACILITATE SERVICING
3. SET BOX AND ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
5. AVOID HEAVY COMPACTION OF SOIL AROUND BOXES TO PREVENT DAMAGING VALVE BOX SIDES.
6. SET ALL BOXES FLUSH WITH WALKS, CURBS, ETC. IN ALL CASES.
7. SET BOXES WITH STANDARD BRICK UNDER EACH CORNER OR IN CASE OF ROUND BOX USE TWO BRICKS 180 DEGREES APART.
8. MAKE SURE ALL VALVE BOXES HAVE BOLTS.
9. SEAL OPENINGS TO PREVENT ENTRANCE OF SOIL INTO BOXES.

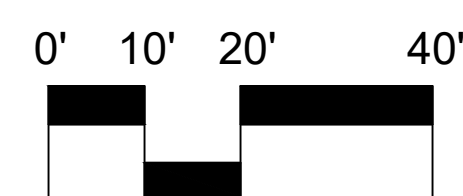
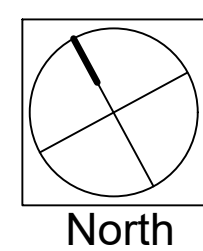


**5 VALVE BOX INSTALLATION**





**GRADING DRAINAGE and LAYOUT PLAN**



**LAYOUT NOTES**

1. CONTRACTOR SHALL MEET ONSITE WITH SCHOOL REPRESENTATIVE PRIOR TO DEMOLITION TO REVIEW LAYOUT.
2. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING IRRIGATION EQUIPMENT AS SHOWN ON PLANS.
3. CONTRACTOR SHALL NOTIFY USA ALERT (UNDERGROUND SERVICE ALERT) AT 1(800) 227-2600 PRIOR TO CONSTRUCTION.
4. ALL ANGLES ARE 45, 90, OR 135 DEGREES UNLESS NOTED OTHERWISE.
5. CONTRACTOR IS RESPONSIBLE FOR PROVIDING LAYOUT AND STAKING, ALL STAKING AND RE-STAKING WILL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE APPROVED BY THE SCHOOL'S REPRESENTATIVE PRIOR TO COMMENCING CONSTRUCTION.
6. ALL CURVES AND TRANSITIONS BETWEEN CURVES SHALL BE SMOOTH AND CONTINUOUS.
7. CONTRACTOR SHALL NOTIFY SCHOOL REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE PLANS AND SITE CONDITIONS PRIOR TO COMMENCING.

**GRADING NOTES**

1. CONTRACTOR SHALL VERIFY ALL GRADES, EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. ALL DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT COORDINATOR FOR RESOLUTION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COSTS INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
3. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. ALL UTILITY BOXES WITHIN PAVED AND LANDSCAPED AREAS ARE TO BE ADJUSTED AND/OR EXTENDED TO MEET NEW FINISHED GRADES.
5. CONTRACTOR TO BE RESPONSIBLE FOR HAVING TRAINED PERSONNEL FOR SWPPP, MONITORING AND ASSOCIATED REPORTS.

**GRADING LEGEND**

x0.00	EXISTING ELEVATION
+ 0.00 IE	PIPE INVERT ELEVATION
+ 0.00	FINISHED GRADE ELEVATION
+ 0.00 HP	HIGH POINT ELEVATION
←	DIRECTION OF SURFACE FLOW
GB	GRADE BREAK
— 90 —	EXISTING CONTOUR
- - - 90 - - -	PROPOSED CONTOUR
⊙ CO	CLEANOUT
← 4"D, S=1%	PERFORATED DRAIN LINE, (SDR35 PVC) S= SLOPE, D=INSIDE DIAMETER
← 4"D, S=1%	6" PANEL DRAIN, (MULTI-FLOW OR EQ.)
○ ○ ○ ○	SILT FENCING
- - - - -	GOPHER MESH, (ADDITIVE ALTERNATE #1)

**LAYOUT LEGEND**

	SOD TURF AREA, 48,140 SF, NO NETTING, SAND BASED, WEST COAST TURF, BOLERO DWARF FESCUE, OR EQUAL. (CONTACT GREG DUNN WEST COAST TURF).
	INFIELD MIX AREA 10,200 S.F., PROVIDE AN AVG. OF 0.5" DEPTH PAC BELL PARK MIX. (15 C.Y.). INCORPORATE INTO EXISTING MIX, REGRADE TO MEET DESIGN ELEVATIONS, AND COMPACT TO 90%.
	DECOMPOSED GRANITE PAVING, (1,650 S.F.)
DETAIL CALL OUT:	
1	DETAIL NUMBER
L-2	SHEET NUMBER



1005 A Street, Suite 305  
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Project

**Turf Rehabilitation and Irrigation Repair**

**Tam Valley Elementary School**

350 Bell Lane  
Mill Valley, CA 94941

Drawing Title

**GRADING and LAYOUT PLAN**

Date: May 15, 2018

Job #: 1710

Revisions

Sheet Number

**L-1**

Seal



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**Turf Rehabilitation and Irrigation Repair**

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Drawing Title

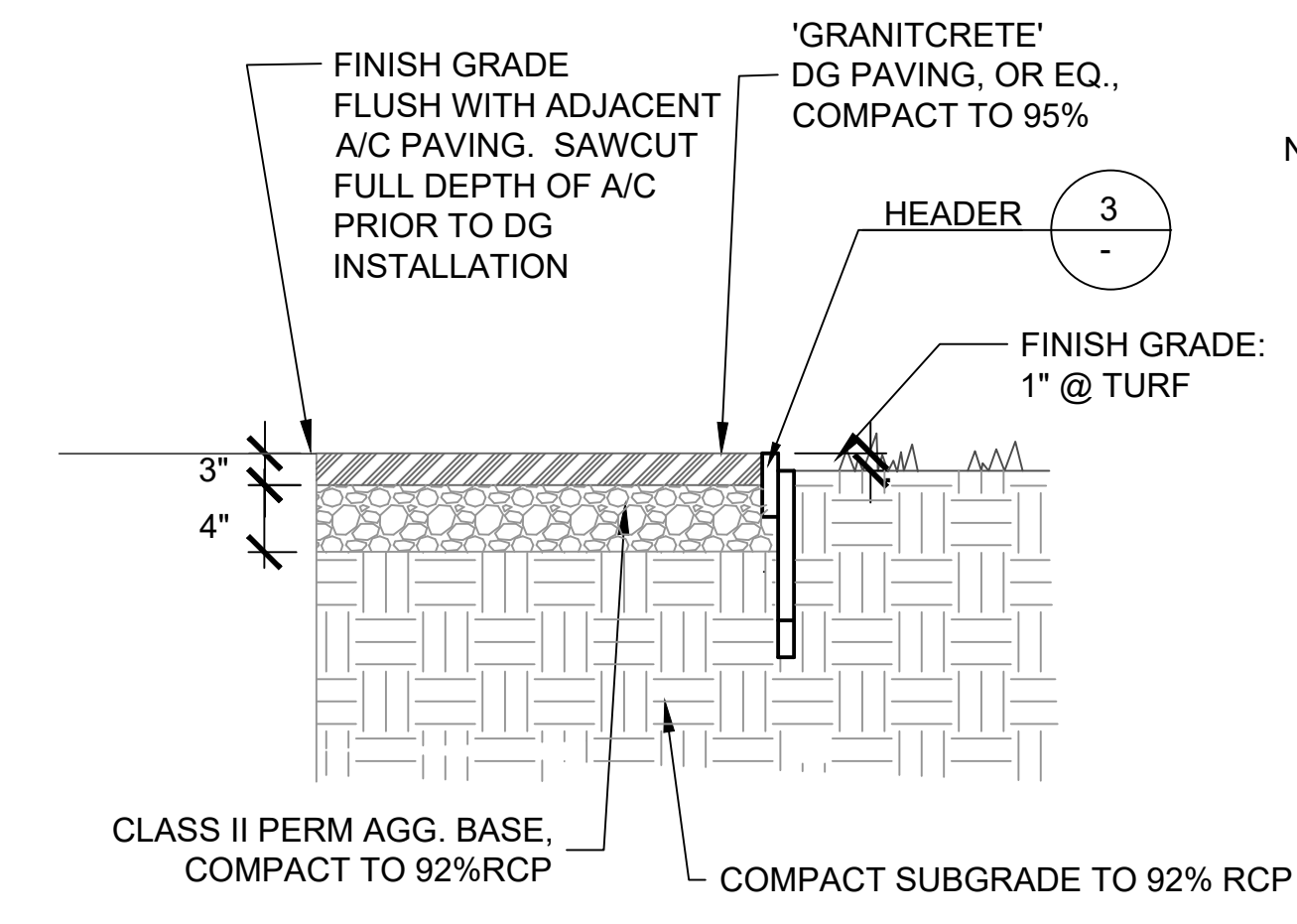
**CONSTRUCTION DETAILS**

Date: May 15, 2018

Job #: 1710

Revisions

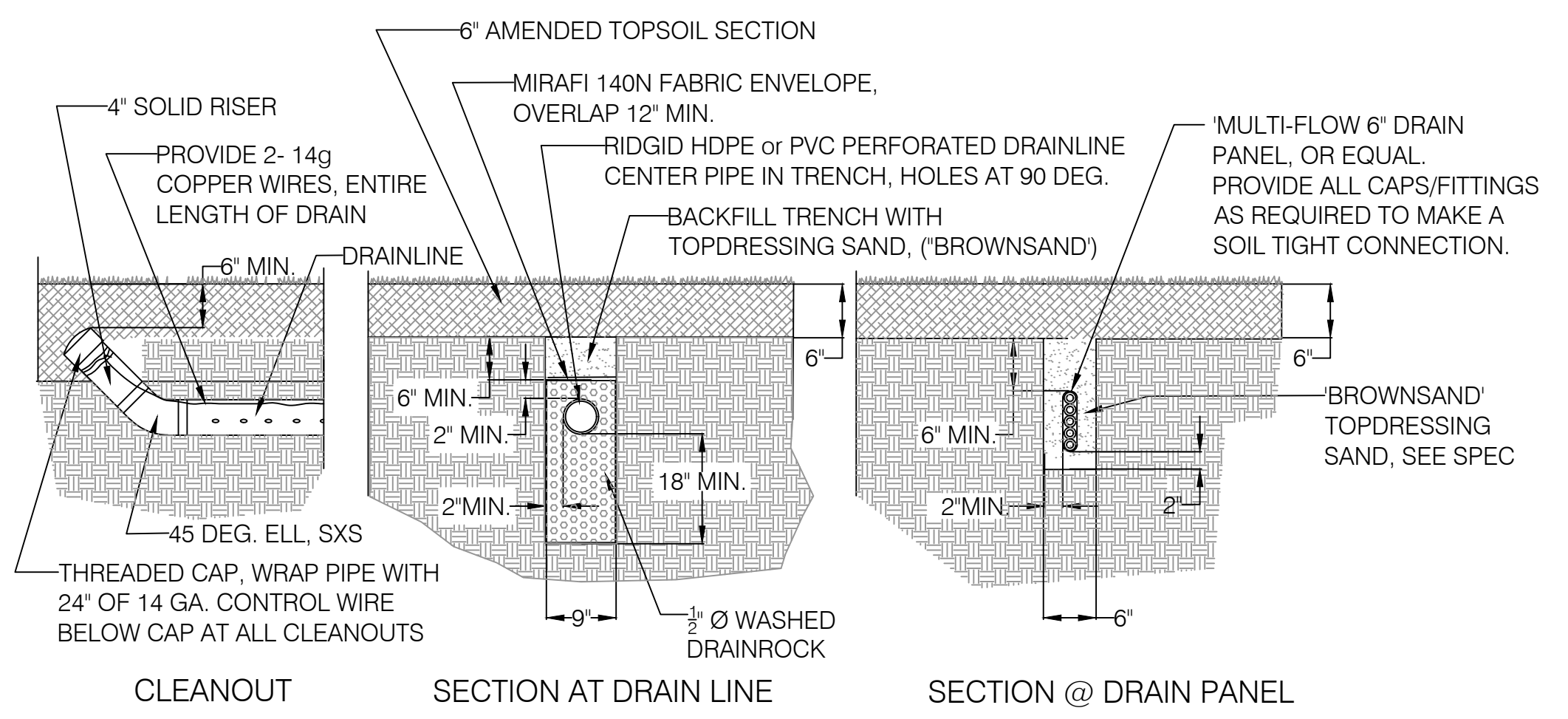
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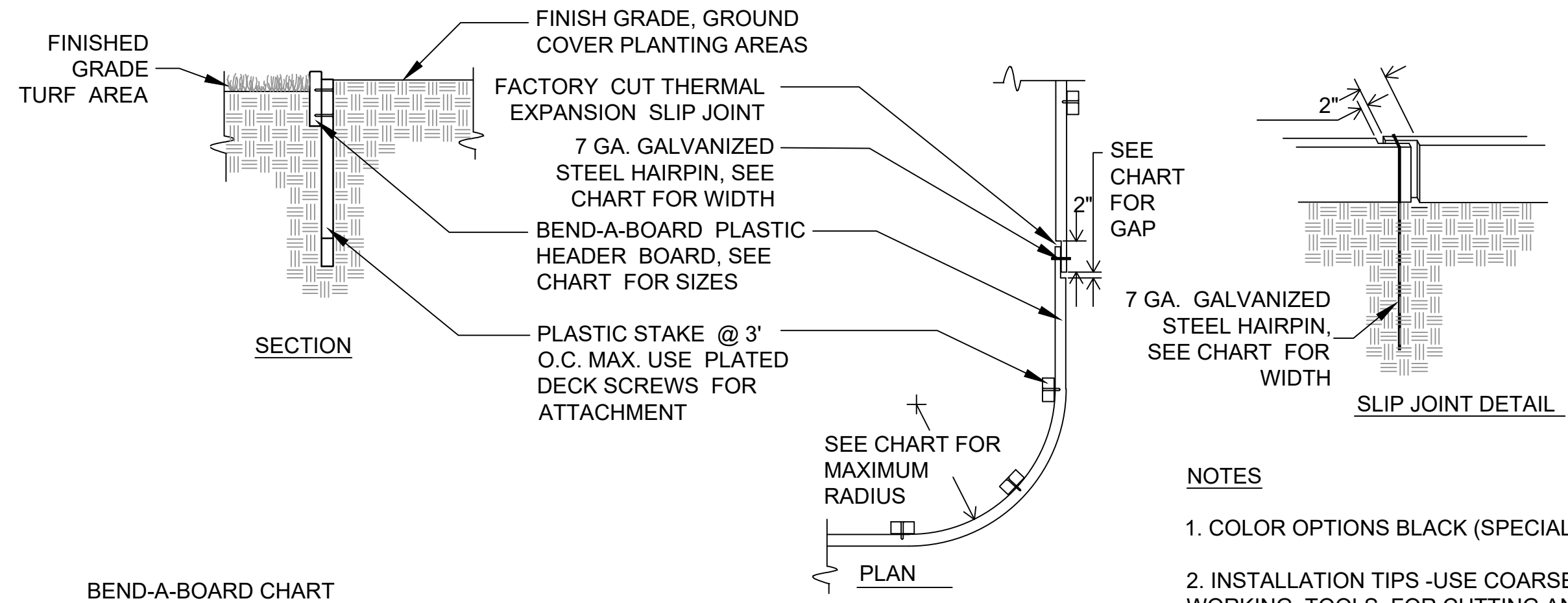
NOTES:

1. DECOMPOSED GRANITE TO BE 3/8" MINUS FINES, GOLD/TAN IN COLOR WITH GRANITCRETE (OR EQ) STABILIZING ADDITIVE, (170 LBS PER CUBIC YARD), INSTALLED PER MANUF INSTRUCTIONS. SUBMIT SAMPLE FOR APPROVAL.
2. SEE GRADING PLAN FOR DIRECTION OF DRAINAGE.
3. EDGING IS REQUIRED WHERE NO OTHER STRUCTURE EXISTS FOR USE AS A BORDER.
4. WHERE DECOMPOSED GRANITE PAVING ABUTS A/C PAVING, FINISH SURFACE OF DG SHALL BE FLUSH WITH A/C.

**1 DECOMPOSED GRANITE PAVING**



**2 SUB SURFACE DRAIN LINES**



NOTES:

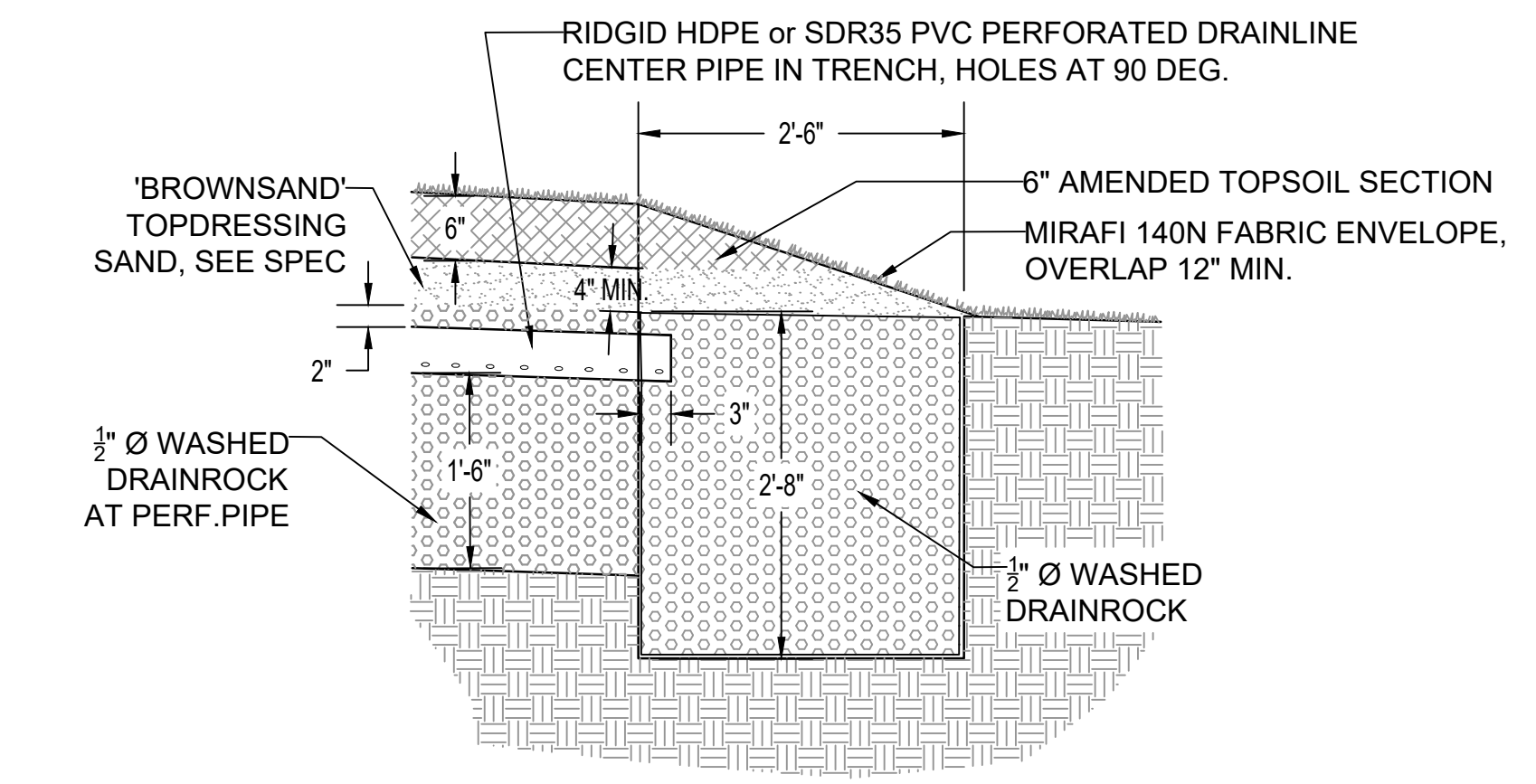
1. COLOR OPTIONS BLACK (SPECIAL ORDER)
2. INSTALLATION TIPS -USE COARSE WOOD WORKING TOOLS FOR CUTTING AND DRILLING. -USE PLATED SCREWS OR RING SHANK NAILS TO JOIN BOARDS. -ALLOW FOR THERMAL EXPANSION THE SLIP BY LEAVING GAPS IN JOINTS OR AT THE END OF THE RUN. -DO NOT SCREW THROUGH SLIP JOINT.

BEND-A-BOARD CHART

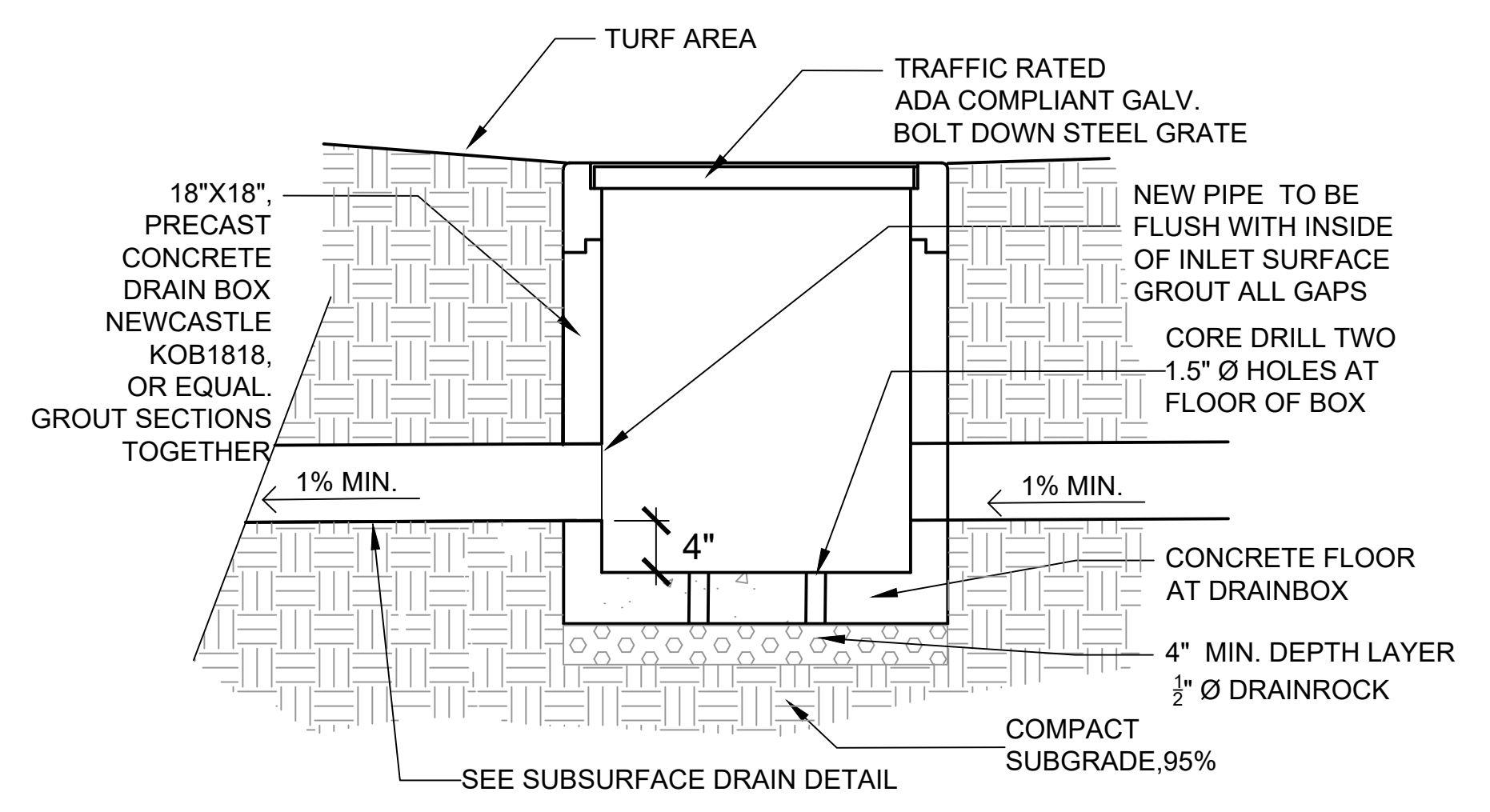
HDR SIZE	ACTUAL DIMENSIONS	MAXIMUM RADIUS POSSIBLE	MAXIMUM CROWN POSSIBLE	RECOMMENDED GAP AT SLIP JOINT	SLIP JOINT HAIRPIN DIMENSIONS
2x6	5 1/2" x 1 1/2" x 16'	36"	N/A	3/4" - 1"	N/A

MANUFACTURED BY: EPIC PLASTICS, , www.epicplastics.com

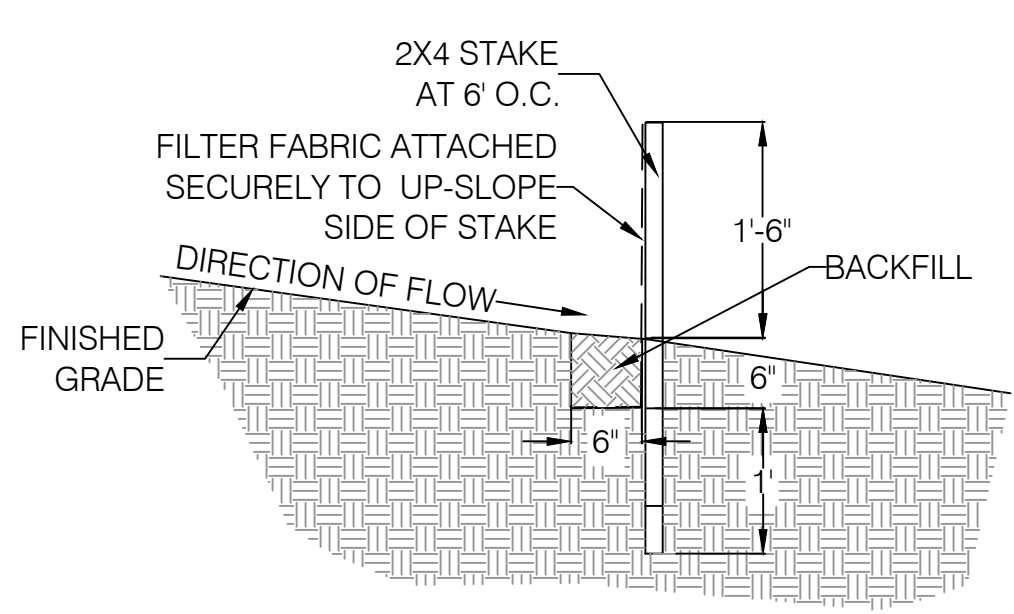
**3 HEADER**



**4 PERCOLATION TRENCH**



**5 DRAIN INLET**



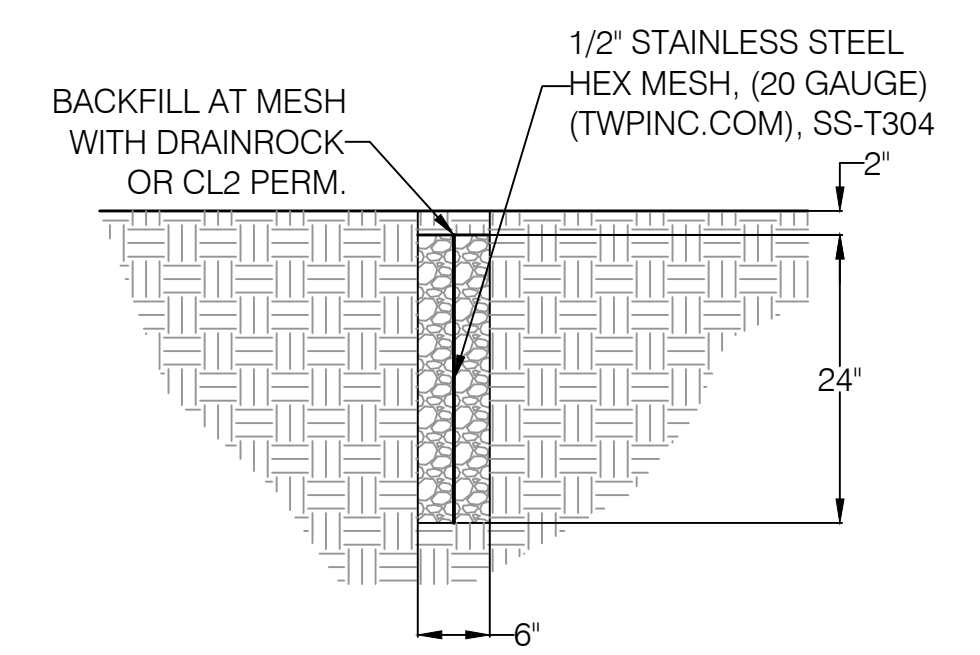
**6 SILT FENCE**

SILT FENCE INSTALLATION NOTES:

1. SILT FENCES MUST BE ENTRENCHED 6" DEEP
2. SILT FENCES MUST BE TOED-IN AN ADDITIONAL 6", WITH THE TOE FACING TOWARDS THE DIRECTION OF FLOW.
3. SILT FENCES MUST NOT BE BACKFILLED ABOVE GRADE FOR ENTRENCHMENT
4. SILT FENCES MUST BE FIRMLY STAKED EVERY 6 FEET. STAKES SHALL BE DRIVEN INTO THE GROUND A MINIMUM OF 12 INCHES BELOW BOTTOM OF TRENCH.
5. SILT FENCES MUST BE WRAPPED TOGETHER WHEN JOINING SECTIONS TO PROVIDE A CONTINUOUS BARRIER. WHEN ATTACHING FENCE TO STAKE, THE HARDWARE/FASTENERS SHALL HAVE NO SHARP EDGES EXPOSED.

GOPHER MESH INSTALLATION NOTES:

1. ALL MESH TO BE STAINLESS STEEL.
2. TOP OF MESH TO BE 2" BELOW FINISHED GRADE
3. TRENCH WIDTH CAN BE LESS THAN 6", (3" MIN.)



**6 GOPHER MESH ADDITIVE ALTERNATE #1**