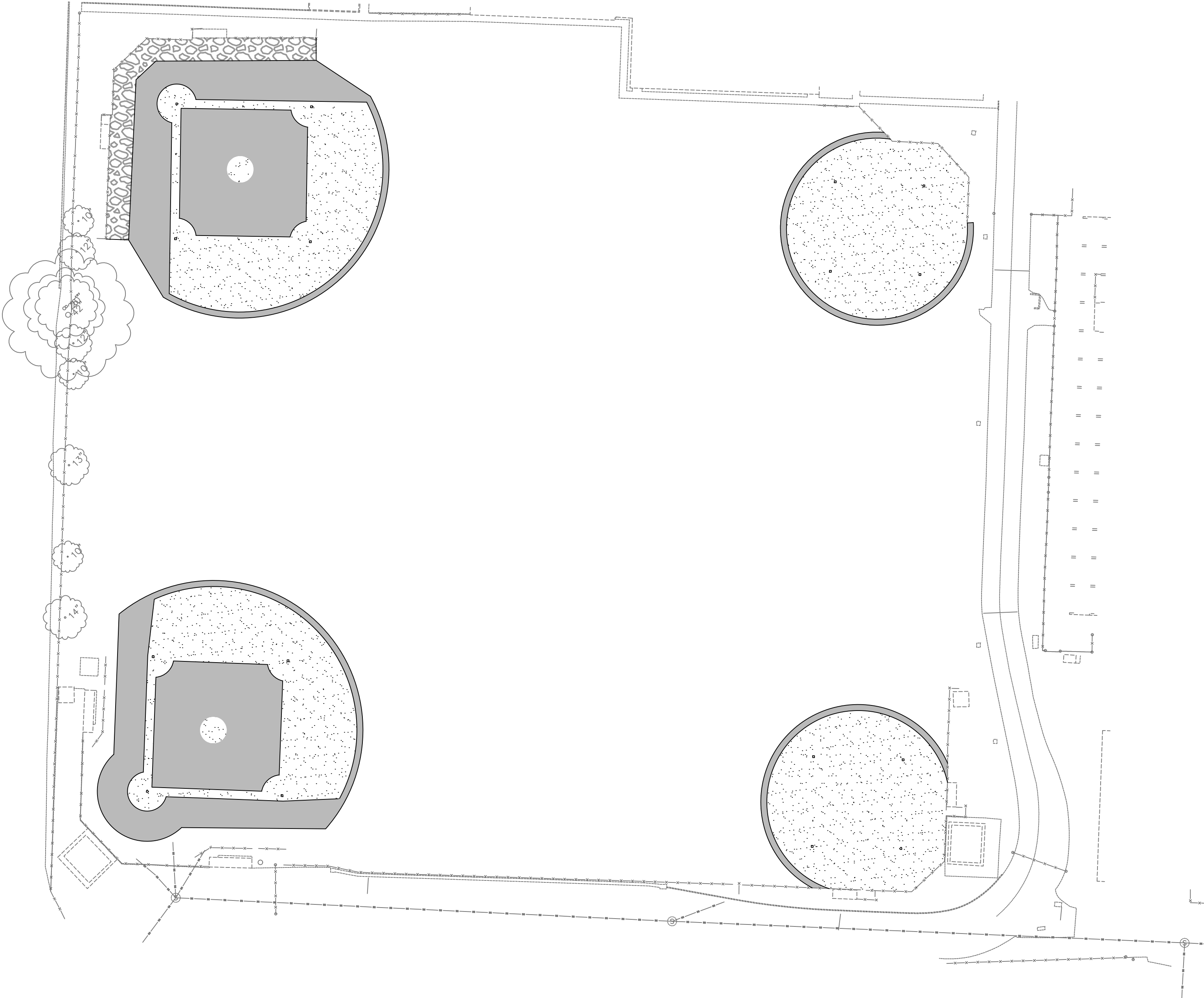


KELSO HIGH SCHOOL PRACTICE FIELDS

LOCATED IN SE 1/4 SECTION 26 AND NE 1/4 SECTION 35, TOWNSHIP 8 NORTH, RANGE 2 WEST, WILLAMETTE MERIDIAN
CITY OF KELSO, WASHINGTON



VICINITY MAP
NOT TO SCALE

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10	C302	NE SOFTBALL FIELD SITE GRADING AND STORMWATER PLAN
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26	SR03	RESTORATION PLAN
27	SR04	RESTORATION PLAN
28	SR05	RESTORATION DETAILS
29	SR06	SEEDING SPECIFICATIONS

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Kelso, WA 98626

BASIS OF BEARING:

BASED ON OBSERVATIONS USING THE WASHINGTON STATE REFERENCE NETWORK (WSRN) HORIZONTAL DATUM: NAD 83_2011, STATE PLANE COORDINATES (WASHINGTON SOUTH ZONE 4602) DISTANCES SHOWN HEREON ARE GROUND DISTANCES.

PROJECT NOTE:

CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE COWLITZ COUNTY ENGINEERING STANDARDS FOR CONSTRUCTION

GENERAL REQUIREMENTS AND DETAILS:

ALL MATERIALS AND METHODS OF CONSTRUCTION AND INSTALLATION FOR WATER, SEWER, STORM WATER FACILITIES, AND EROSION CONTROL MEASURES, SHALL CONFORM TO CITY OF KELSO ENGINEERING SERVICES "GENERAL REQUIREMENTS AND DETAILS FOR THE DESIGN AND CONSTRUCTION OF WATER, SANITARY SEWER AND SURFACE WATER SYSTEMS." CONSTRUCTION SHALL BE AS PER THE MOST CURRENT STANDARD DETAIL.

"I HEREBY CERTIFY THAT THESE PLANS, AND RELATED DESIGN, WERE PREPARED IN CONFORMANCE WITH THE CITY OF KELSO'S ENGINEERING DESIGN MANUAL. I ACKNOWLEDGE THAT CITY APPROVAL OF THESE DOCUMENTS DOES NOT TRANSFER LIABILITY."



Scale 1" = 50'

0 25 50 100

PERMIT SET

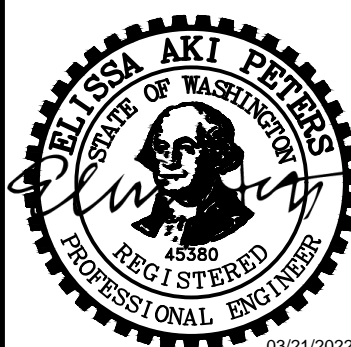
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COVER SHEET FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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DESIGNED: ANW
CHECKED: EAP
MARCH 2022 71853-000
SHEET ID C001
SHEET 1 OF 29

GENERAL NOTES

1.

THE VERTICAL DATUM FOR THIS SURVEY IS NAVD88. SITE BENCHMARK: PBS CP#1 ELEVATION=11.21' THE VERTICAL BENCHMARK IS A MAG NAIL SET IN ASPHALT LOCATED ON THE SOUTH SIDE OF THE KELSO HIGH SCHOOL PRACTICE FIELD, 450 FEET EAST OF TAM O'SHANTER WAY, 34 FEET SOUTHEAST OF A CATCH BASIN, 95 FEET WEST OF THE SOUTHWEST CORNER OF A DUGOUT. ELEVATION WAS TRANSFERRED FROM NGS BENCHMARK M 534 (ELEVATION=23.09') THROUGH GPS OBSERVATION.
- THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON OBSERVATIONS USING THE WASHINGTON STATE REFERENCE NETWORK (WSRN) HORIZONTAL DATUM: NAD 83_2011, STATE PLANE COORDINATES (WASHINGTON SOUTH ZONE 4602) DISTANCES SHOWN HEREON ARE GROUND DISTANCES.
- THIS TOPOGRAPHIC SURVEY WAS PERFORMED FOR THE PURPOSE OF DESIGNING SITE IMPROVEMENTS.
- CONTOURS DERIVED BY DIRECT FIELD OBSERVATIONS. ELEVATION AND CONTOUR ACCURACY IS ONE-HALF THE CONTOUR INTERVAL.
- THIS MAP HAS BEEN PRODUCED FOR DESIGN PURPOSES AND IS NOT A BOUNDARY SURVEY.
- NO BOUNDARIES ARE SHOWN OR IMPLIED.
- THE UNDERGROUND UTILITIES SHOWN HEREON WERE BASED ON FIELD MEASUREMENT OF UTILITY LOCATE PAINT MARKS AS WELL AS SURFACE EVIDENCE AND PRIVATE ASBUILT RECORDS. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION MAY BE NECESSARY. ADDITIONALLY, CERTAIN UTILITIES ONSITE (WATER, SANITARY, STORM, GAS, ETC.) MAY NOT HAVE CONDUCTIBLE OR TRACEABLE LINES AND MAY BE PRESENT. NO ATTEMPT WAS MADE TO LOCATE UNDERGROUND UTILITIES.
2.

ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AND THE LATEST EDITION OF THE KELSO ENGINEERING DESIGN MANUAL.
3.

THE CONTRACTOR SHALL HAVE A COPY OF THESE PLANS, PROJECT SPECIFICATIONS, ADDENDA, CHANGE ORDERS, AND SWPPP ON THE JOB AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN AND UPDATE A FULL SIZE SET OF AS-BUILTS AND THE SWPPP.
4.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL CONSTRUCTION EASEMENTS AND/OR RIGHT OF ENTRIES PRIOR TO CONSTRUCTION WORK.
5.

EXISTING UTILITIES SHOWN ON THE PLANS ARE PER SURFACE LOCATING AND AVAILABLE RECORDS AND ARE SHOWN FOR CONVENIENCE. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION BY CALLING UNDERGROUND LOCATE LINE AT 811 A MINIMUM OF TWO FULL WORKING DAYS PRIOR TO BEGINING ANY EXCAVATION. IF CONFLICT EXISTS, NOTIFY UTILITY COMPANY AND ENGINEER. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES.
6.

IF EXISTING CURB, SIDEWALK, PAVEMENT, AND LANDSCAPING DEDICATED TO REMAIN ARE DAMAGED, THE CURB, SIDEWALK, PAVEMENT, AND/OR LANDSCAPING SHALL BE REMOVED AND REPLACED TO THE ORIGINAL CONDITIONS AT THE CONTRACTOR'S EXPENSE.
7.

ALL STREET SIGNS AND STRIPING SHALL BE INSTALLED PER THE CURRENT MUTCD.
8.

CONTRACTOR SHALL NOTIFY AND COORDINATE WITH OTHER UTILITIES AS NEEDED FOR THE DURATION OF THE PROJECT.
9.

IN ACCORDANCE WITH THE PROVISIONS OF WASHINGTON ADMINISTRATIVE CODE (WAC) CHAPTER 332-120 AND THE REVISED CODE OF WASHINGTON (RCW) TITLE 58; ANY MONUMENT SHOWN ON THIS PLAN SET OR FOUND IN THE FIELD WHICH CANNOT BE PROTECTED AND WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION, SHALL BE REFERENCED BY A LICENSED SURVEYOR, AND AN APPLICATION FILED WITH THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES (DNR), PER WAC 322-120-050 PRIOR TO THE MONUMENT BEING DISTURBED OR DESTROYED. THE CONTRACTOR SHALL NOTIFY THE CITY AND A COPY OF EACH DNR APPLICATION SUBMITTED SHALL BE PROVIDED TO THE CITY ENGINEER. WHEN CONSTRUCTION WORK IS COMPLETE, THE CONTRACTOR'S CONSTRUCTION SURVEYOR SHALL VERIFY THE MONUMENTS SHOWN ON THIS PLAN SET ARE STILL IN PLACE AND SUBMIT A STAMPED AND SIGNED REPORT TO THE CITY DOCUMENTING THEIR CONDITION. ANY MONUMENTS DISTURBED OR DESTROYED SHALL BE REPLACED BY THE CONTRACTOR'S SURVEYOR IN ACCORDANCE WITH WAC CHAPTER 332-120. NO PART OF THIS STATEMENT SHALL RELIEVE THE CONTRACTOR OR THEIR SURVEYOR OF ANY OTHER PROVISIONS OF THE WAC OR RCW WITH REGARDS TO DUTIES AND RESPONSIBILITIES RELATED TO SURVEY MONUMENTATION AND ITS PRESERVATION OR REPLACEMENT.

EROSION CONTROL NOTES

1.

ALL EROSION CONTROL DEVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND EROSION CONTROL DETAILS AND IN PLACE PRIOR TO START OF ANY LAND DISTURBING ACTIVITY.
2.

ALL EROSION PREVENTION AND CONTROL BMPS SHALL BE INSPECTED, MAINTAINED AND REPAIRED AS NEEDED THROUGHOUT CONSTRUCTION TO INSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
3.

PERFORM ALL ACTIONS NECESSARY TO PREVENT EROSION AND CONTROL SEDIMENT, INCLUDING DUST, FROM LEAVING THE CONSTRUCTION SITE.
4.

AS CONSTRUCTION PROGRESSES AND SEASONAL CONDITIONS DICTATE, MORE EROSION AND SEDIMENT CONTROLS MAY BE REQUIRED TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATERS DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR SURFACE WATERS.
5.

SITES THAT ARE REQUIRED TO HAVE A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD SHALL KEEP A CURRENT INSPECTION LOG ONSITE THAT SHALL BE AVAILABLE FOR CITY REVIEW.
6.

THE CONTRACTOR SHALL HAVE A COPY OF THE APPROVED STORMWATER POLLUTION AND PROTECTION PERMIT (SWPPP) ON SITE AT ALL TIMES.

SITE GRADING

1.

THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE GEOTECHNICAL REPORT PREPARED BY PBS ENGINEERING, DATED 7/7/2020 SPECIFICALLY FOR THIS SITE.
2.

THE ENTIRE SITE IS TO BE MOWED AND STRIPPED TO REMOVE ALL GRASS, ROOTS, ORGANIC SOIL, AND CONSTRUCTION FILL DEBRIS PRIOR TO THE BEGINNING OF ANY GRADING OPERATIONS. THE CONTRACTOR SHALL SALVAGE AND STOCKPILE ENOUGH SELECT TOP SOIL TO ACCOMMODATE LANDSCAPING NEEDS.
3.

FOLLOWING STRIPPING AND GRUBBING, THE EXPOSED SOILS SHALL BE PROOF ROLLED TO REVEAL WEAK, ORGANIC, OR OTHER UNSUITABLE SOILS. UNSUITABLE SOILS SHALL BE EXCAVATED TO FIRM GROUND AND FILLED TO GRADE WITH SUITABLE NATIVE OR STRUCTURAL FILL.
4.

EXPOSED SUBGRADE SOILS ON AREAS TO RECEIVE STRUCTURAL FILL SHOULD BE SCARIFIED TO A DEPTH OF 8 INCHES.
5.

FILL AREAS SHALL BE STRUCTURALLY FILLED WITH SURPLUS SUITABLE MATERIALS FROM CUT AREAS OR IMPORTED STRUCTURAL FILL. SELECT MATERIALS SHALL BE PLACED IN FILL AREAS IN LIFTS NOT TO EXCEED 8". EACH LIFT SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY. FILL MATERIALS SHOULD BE FREE OF ORGANICS, AND ROCK FRAGMENTS IN EXCESS OF 6" IN DIMENSION.
6.

COMPACTION TESTING SHALL BE DONE IN ACCORDANCE WITH THE AASHTO T-99.
7.

AT THE END OF THE GRADING OPERATION, THE STOCKPILED STRIPPINGS SHALL BE DISTRIBUTED ON THE LANDSCAPE AREAS IN A COMPACTED DEPTH NOT TO EXCEED 8".
8.

ALL DELETERIOUS MATERIALS GENERATED DURING SITE GRADING AND STRIPPINGS NOT UTILIZED IN THE FINAL GROUND COVER OPERATION SHALL BE HAULED FROM THE SITE TO A CONTRACTOR PROVIDED WASTE SITE.
9.

ANY EXCESS MATERIAL, NOT REQUIRED TO COMPLETE THE GRADES SHOWN ON THE PLANS SHALL BE HAULED FROM THE SITE TO A CONTRACTOR PROVIDED WASTE SITE.
10.

ALL SURFACES SHALL BE GRADED SMOOTH AND FREE OF IRREGULARITIES THAT MIGHT ACCUMULATE SURFACE WATER.
11.

ALL GRADING OPERATIONS AND DISTURBED SURFACE STABILIZATION SHALL BE IN ACCORDANCE WITH THE PROJECT'S EROSION CONTROL PLAN SHEETS.

STORM SEWER

1.

TRACER WIRE SHALL BE INSTALLED IN THE SAME ORIENTATION TO THE INSTALLED NON-CONDUCTIVE PIPE IN ONE CONTINUOUS STAND. INSTALL A WARNING TAPE 12 TO 18 INCHES ABOVE THE INSTALLED PIPE. CONTINUITY OF TRACER WIRE IS REQUIRED.
2.

INSTALLED PIPE SHALL BE CLEANED BY USE OF HIGH PRESSURE NOZZLE AND VACUUM TRUCK PRIOR TO VIDEOING OR TESTING.
3.

VIDEO INSPECTION SHALL BE PERFORMED ON THE INSTALLED PIPE. VIDEO INSPECTION SHALL DEMONSTRATE NO DEFORMATION, MANUFACTURING OR INSTALLATION DEFECTS, OR ANY DEBRIS IN THE LINES, FOR APPROVAL AND ACCEPTANCE BY THE CITY.
4.

ALTERNATE PIPE MATERIALS, WHERE REQUIRED FOR STRENGTH OR NOTED ON PLANS. CLASS 52 DUCTILE IRON PIPE SHALL BE USED.

5.

PRESSURE TESTING IN ALL STORM MAIN LINES IS REQUIRED.

DEWATERING

1.

DEWATERING MAY BE REQUIRED TO TEMPORARILY REDUCE THE GROUNDWATER ELEVATION TO ALLOW SITE CONSTRUCTION INCLUDING PROPOSED BELOW-GRADE STRUCTURES AND INSTALLATION OF UTILITIES.
2.

OVER EXCAVATION AND STABILIZATION OF PIPE TRENCHES OR OTHER EXCAVATIONS WITH IMPORTED CRUSHED AGGREGATE OR GABION ROCK MAY ALSO BE NECESSARY TO PROVIDE ADEQUATE SUBGRADE SUPPORT.
3.

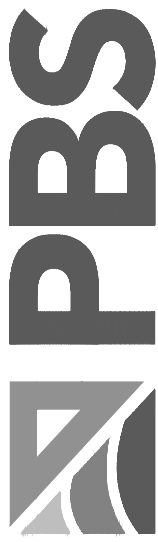
DEWATERING MAY BE MORE FEASIBLY CONDUCTED BY INSTALLING A SYSTEM OF TEMPORARY WELL POINTS AND PUMPS AROUND PROPOSED EXCAVATION AREA OR UTILITY TRENCHES. WELL PUMPS SHOULD REMAIN FUNCTIONING AT ALL TIMES DURING THE EXCAVATION AND CONSTRUCTION PERIOD. SUITABLE BACK-UP PUMPS AND POWER SUPPLIES SHOULD BE AVAILABLE TO PREVENT UNANTICIPATED SHUT-DOWN OR DEWATERING EQUIPMENT.

PERMIT SET

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GENERAL NOTES FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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DESIGNED: ANW
CHECKED: EAP
MARCH 2022 171853-000
SHEET ID
C002
SHEET 2 OF 29

Existing Linetype Legend	
Existing Sanitary Sewer Pipe	SS
Existing 4" Sanitary Sewer Pipe	4" SS
Existing 6" Sanitary Sewer Pipe	6" SS
Existing 8" Sanitary Sewer Pipe	8" SS
Existing 10" Sanitary Sewer Pipe	10" SS
Existing 12" Sanitary Sewer Pipe	12" SS
Existing 15" Sanitary Sewer Pipe	15" SS
Existing 18" Sanitary Sewer Pipe	18" SS
Existing 24" Sanitary Sewer Pipe	24" SS
Existing 30" Sanitary Sewer Pipe	30" SS
Existing Sanitary Force Main	FM
Existing Storm Sewer Pipe	SD
Existing 4" Storm Sewer Pipe	4" SD
Existing 6" Storm Sewer Pipe	6" SD
Existing 8" Storm Sewer Pipe	8" SD
Existing 10" Storm Sewer Pipe	10" SD
Existing 12" Storm Sewer Pipe	12" SD
Existing 15" Storm Sewer Pipe	15" SD
Existing 18" Storm Sewer Pipe	18" SD
Existing 24" Storm Sewer Pipe	24" SD
Existing Water Pipe	WL
Existing 4" Water Pipe	4" WL
Existing 6" Water Pipe	6" WL
Existing 8" Water Pipe	8" WL
Existing 10" Water Pipe	10" WL
Existing 12" Water Pipe	12" WL
Existing 15" Water Pipe	15" WL
Existing 18" Water Pipe	18" WL
Existing 24" Water Pipe	24" WL
Existing Water Lateral	
Existing Irrigation Pipe	IRR
Existing 4" Irrigation Pipe	4" IRR
Existing 6" Irrigation Pipe	6" IRR
Existing 8" Irrigation Pipe	8" IRR
Existing 10" Irrigation Pipe	10" IRR
Existing 12" Irrigation Pipe	12" IRR
Existing Irrigation Lateral	
Existing Cable Tv Line	TV
Existing Electric Line	E
Existing Gas Line	G
Existing Over Head Power Line	OHP
Existing Telephone Line	T
Existing Fiber Optic Line	FO
Existing Underground Utility Line	UGP
Existing Centerline	
Existing Curb	
Existing Lot Line	
Existing Gravel road	
Existing Paint Stripe	
Existing Right-of-way	
Existing Building	
Existing Wetland Perimeter	
Existing Wetland Buffer	
Existing Property Line	
Existing Utility Easement	
Existing Quarter Section	
Existing Railroad	
Existing Fence	
Existing Wall	
Existing Contour	253

Proposed/Future Linetype Legend	
Proposed Sanitary Sewer Pipe	
Proposed Sanitary Lateral	
Proposed Storm Pipe	
Proposed Water Lateral	
Proposed Water Pipe	
Proposed Irrigation Pipe	
Proposed Irrigation Lateral	
Proposed Lot Line	
Proposed Centerline	
Proposed Right-of-way	
Proposed Sawcut Line	
Proposed Easement	
Proposed Curb & Gutter	
Proposed Edge Of Pav't	
Proposed Sidewalk	
Proposed Wall	
Proposed Building	
Proposed Setback	
Proposed Property Line	
Proposed Cut Line	
Proposed Score Line	
Proposed Paint Stripe	
Proposed Fence	
Proposed Wetland Buffer	
Proposed Wetland Perimeter	
Proposed Contour	253
Erosion Control Filter Fabric Fence	

Symbol Legend	
Existing Water Valve	
Existing Water Spigot	
Existing Fire Hydrant	
Existing Power Pole	
Existing Water Meter	
Existing Sprinkler Valve	
Existing Irrigation Box	
Existing Project Bench Mark	
Existing Light Fixture	
Existing Sanitary Manhole	
Existing Storm Manhole	
Existing Catch Basin	
Existing Area Drain	
Existing Power Vault	
Existing Power Transformer	
Existing Cleanout	
Existing Power Junction Box	
Existing Communications Riser	
Existing Power Riser	
Existing Roof Drain	
Existing Utility Cabinet	
Existing Unknown Utility Vault	
Existing Sign	
Existing Bollard	
Existing Standpipe	
Existing Gate Post	
Existing Coniferous Tree	
Existing Deciduous Tree	
Proposed Street Light	
Proposed Road Barrier	
Proposed Road Sign	
Proposed Flow Arrow	
Proposed Catch Basins	
Proposed Area Drain	
Proposed Combination Curb Inlet	
Proposed Storm Reducer	
Proposed Rain Drain	
Proposed Storm Cleanout	
Proposed Storm Manhole	
Proposed Sedimentation Manhole	
Proposed Drywell	
Proposed Sanitary Cap	
Proposed Sanitary Reducer	
Proposed Sanitary Cleanout	
Proposed Sanitary Manhole	
Proposed Fire Protection Vault	
Proposed Water Meter	
Proposed Water Backflow Device	
Proposed Water Valve	
Proposed Water Bend Tee W/valve	
Proposed Water Bend Tee W/tb	
Proposed Water 22½° Bend W/tb	
Proposed Water 11½° Bend W/tb	
Proposed Water 45° Bend W/tb	
Proposed Water 90° Bend W/tb	
Proposed Water Stand Pipe	
Proposed Water Bend X	
Proposed Water Temporary Blowoff	
Proposed Water Standard Blowoff	
Proposed Water Reducer	
Proposed Water Thrust Block	
Proposed Fire Hydrant	
Proposed Inlet Protection Pillow	
Proposed Gravel Construction Entrance	

Abbreviation Legend	Abbreviation Legend	Abbreviation Legend
Acres	AC	High Water Elevation
Assembly	ASS'Y	Hydrant
Avenue	AVE	Invert Elevation
Approved	APP'D	Intersection
Butterfly	BF	Invert
Boulevard	BLVD	Length
Benchmark	BM	Lateral
Blow Off	BO	Left
Bottom of Stairs	BS	Maximum
Bottom of Wall	BW	Manhole
Care Of	C/O	Minimum
Catch Basin	CB	Match Existing
Cubic Feet	CF	Number
Cast Iron	CI	Overhead Electric
Cement	CEM	Pavement
Circle	CIR	Place
City of Kelso	COK	Point Of Curve
Centerline	CL	Power Pole
Corrugated Metal Pipe	CMP	Point Of Reverse Curve
Cleanout	CO	Point Of Reverse Vertical Curve
Combination	COMB	Point Of Tangent
Compaction	COMP	Point Of Vertical Intersection
Concrete	CONC	Polyvinyl Chloride
Construction	CONST	Proposed
Corrugated Polyethylene	CPE	Radius
Concrete Sewer Pipe	CSP	Rain Drain
Court	CT	Right Of Way
Cubic Yard	CY	Return
Cement	CEM	Right
Depth	D	Sheet
Ductile Iron	DI	Stainless Steel
Diameter	DIA	Steel
Ductile Iron Pipe	DIP	Sidewalk
Down Spout	DS	Street
Edge Of Pavement	EOP	Station Centerline
End Curb Return	ER	Standard
Easement	ESMT	Sanitary
Existing	EXTG	Storm
Elevation	EL	Tangent
Electric	ELEC	Thrust Block
End Vertical Curb	EVC	Temporary Benchmark
Finished Floor	FF	Top Of Curb
Finished Grade	FG	Top Of Stairs
Fire Hydrant	FH	Telephone
Flange	FLG	Temporary
Force Main	FM	Top Of Manhole
Foot / Feet	FT	Typical
Gas	G	Top of Wall
Galvanized Iron	GI	Underground Electric
Ground	GRD	Vertical Curve
Gate Valve	GV	Vertical
High Density Polyethylene	HDPE	State of Washington Department of Transporation
Horizontal	HORIZ	
		Water
		With
		Without
		Water Meter
		Yard

Hatching Legend	
	Proposed Infield
	Proposed Sod
	Proposed Warning Track
	Gravel Removal
	Existing Gravel
	Existing Asphalt

LEGEND AND ABBREVIATIONS FOR:

KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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DESIGNED:

ANW

CHECKED:

EAP

MARCH 2022
71853-000

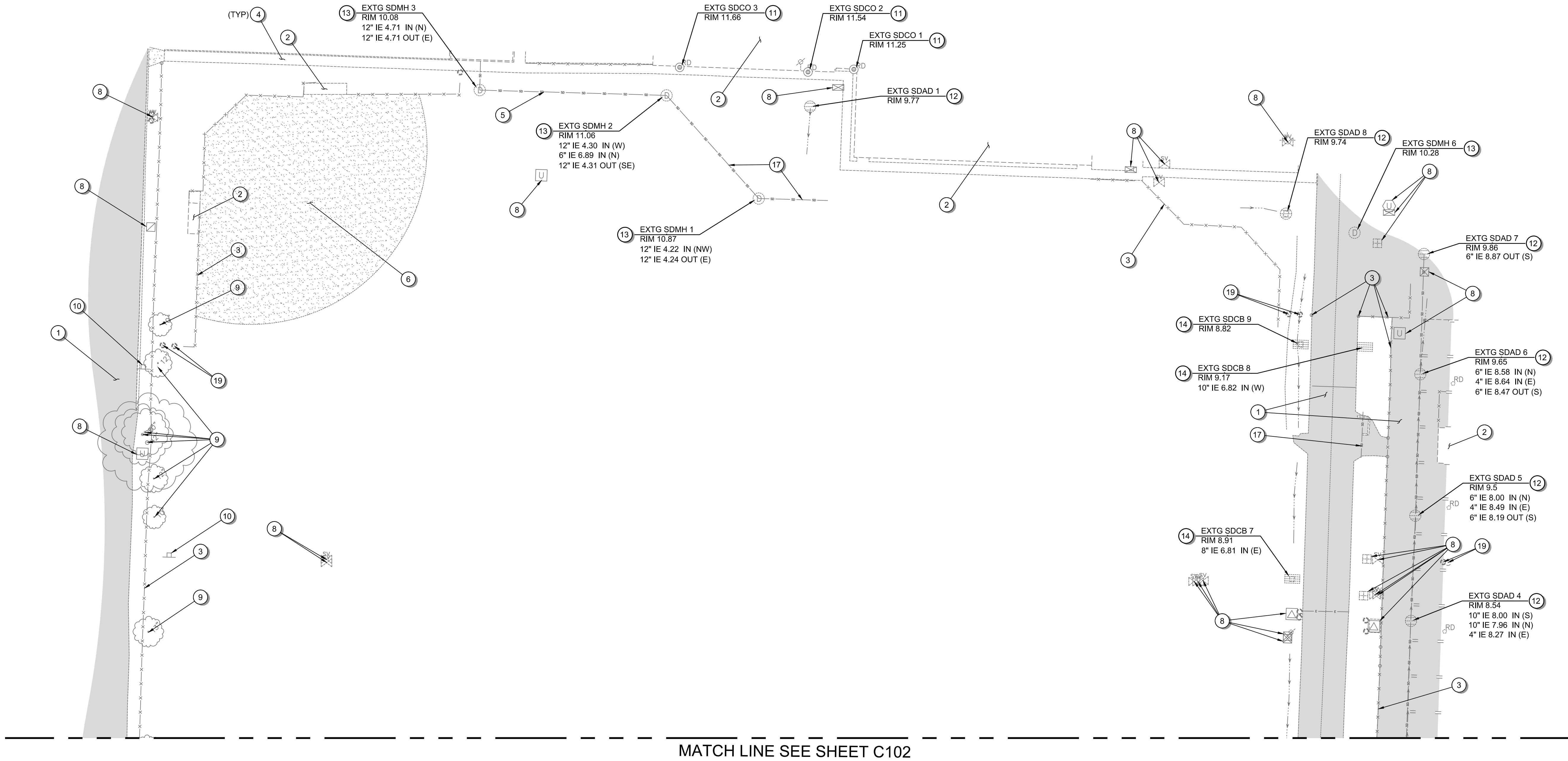
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C003

SHEET 3 OF 29

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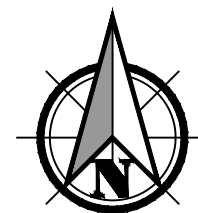
GENERAL NOTES

1. FOR GENERAL NOTES AND LEGEND, SEE SHEETS C002 AND C003.
2. STORM PIPE AND STRUCTURES TO BE CLEANED AND REMOVED OF DEBRIS AND SEDIMENT.

EXISTING CONDITIONS & DEMO NOTES

1. PROTECT EXISTING ASPHALT.
2. PROTECT EXISTING BUILDING.
3. PROTECT EXISTING FENCE AND/OR GATE AND POSTS.
4. PROTECT EXISTING SIDEWALK.
5. CONTRACTOR TO POTHOLE AND VERIFY DAMAGED STORM PIPES.
6. GRAVEL TO BE REMOVED, SEE SHEETS C301-C304.
7. PROTECT EXISTING SANITARY MANHOLE.
8. PROTECT EXISTING UTILITY.

9. PROTECT EXISTING TREE.
10. PROTECT EXISTING SIGN.
11. PROTECT EXISTING STORM CLEANOUT.
12. PROTECT EXISTING STORM AREA DRAIN.
13. PROTECT EXISTING STORM MANHOLE.
14. PROTECT EXISTING STORM CATCH BASIN.
15. PROTECT EXISTING GRAVEL.
16. SITE BENCHMARK.
17. PROTECT EXISTING STORM PIPE.
18. PROTECT EXISTING SANITARY.
19. PROTECT EXISTING BOLLARD.



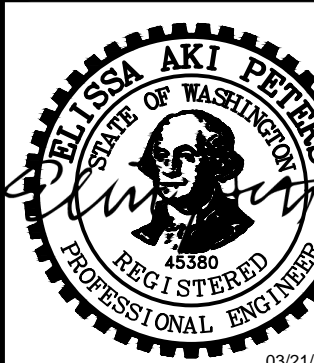
Scale 1" = 30'

0 15 30 60

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EXISTING CONDITIONS AND DEMO PLAN FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A STATE ECOLOGICAL MEDIAN WITH BOLLARDS ON WASHINGTON



DESIGNED:
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MARCH 2022
71853-000
SHEET ID
C101
SHEET 4 OF 29

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GENERAL NOTES

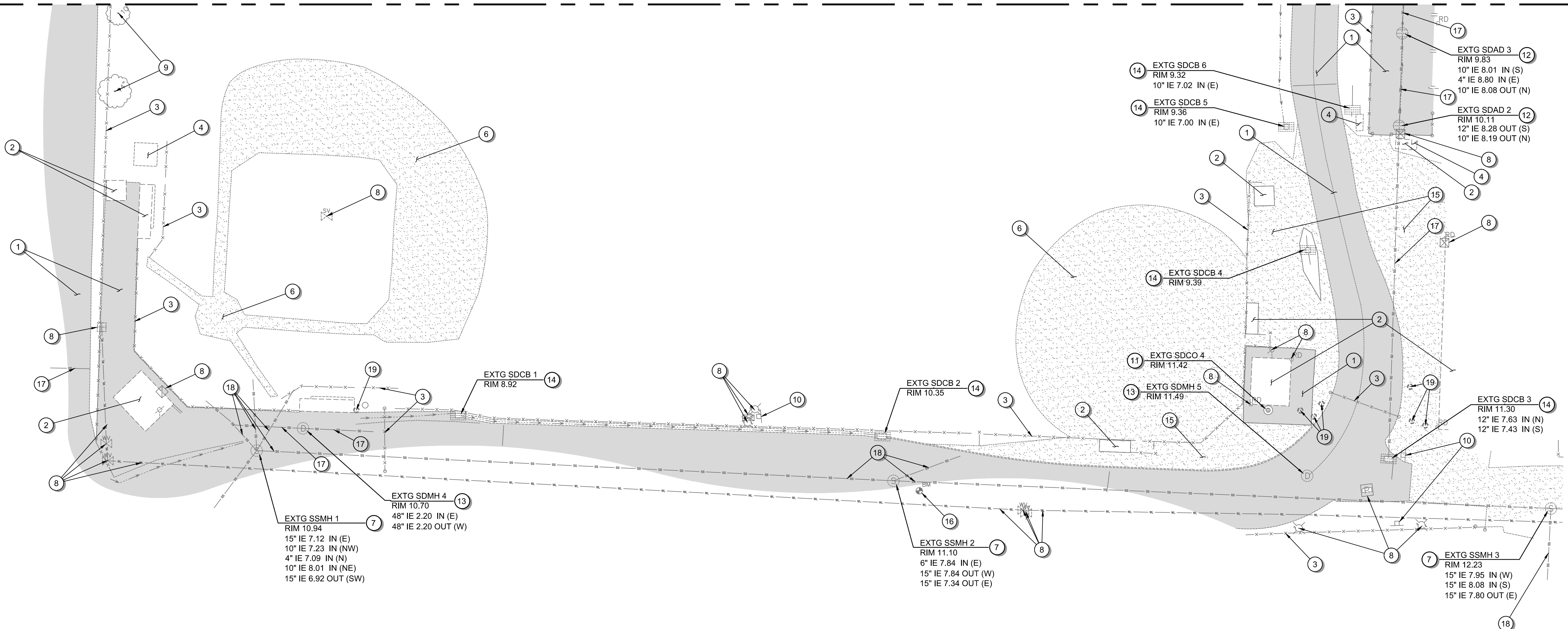
- FOR GENERAL NOTES AND LEGEND, SEE SHEETS C002 AND C003.
- STORM PIPE AND STRUCTURES TO BE CLEANED AND REMOVED OF DEBRIS AND SEDIMENT.

EXISTING CONDITIONS & DEMO NOTES

- PROTECT EXISTING ASPHALT.
- PROTECT EXISTING BUILDING.
- PROTECT EXISTING FENCE AND/OR GATE AND POSTS.
- PROTECT EXISTING SIDEWALK.
- CONTRACTOR TO POTHOLE AND VERIFY DAMAGED STORM PIPES.
- GRAVEL TO BE REMOVED, SEE SHEETS C301-C304.
- PROTECT EXISTING SANITARY MANHOLE.
- PROTECT EXISTING UTILITY.

- PROTECT EXISTING TREE.
- PROTECT EXISTING SIGN.
- PROTECT EXISTING STORM CLEANOUT.
- PROTECT EXISTING STORM AREA DRAIN.
- PROTECT EXISTING STORM MANHOLE.
- PROTECT EXISTING STORM CATCH BASIN.
- PROTECT EXISTING GRAVEL.
- SITE BENCHMARK.
- PROTECT EXISTING STORM PIPE.
- PROTECT EXISTING SANITARY.
- PROTECT EXISTING BOLLARD.

MATCH LINE SEE SHEET C101



PERMIT SET

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EXISTING CONDITIONS AND DEMO PLAN FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A STATE ECOCENTER MEDIAN WITH BOLLARDS ON WASHINGTON

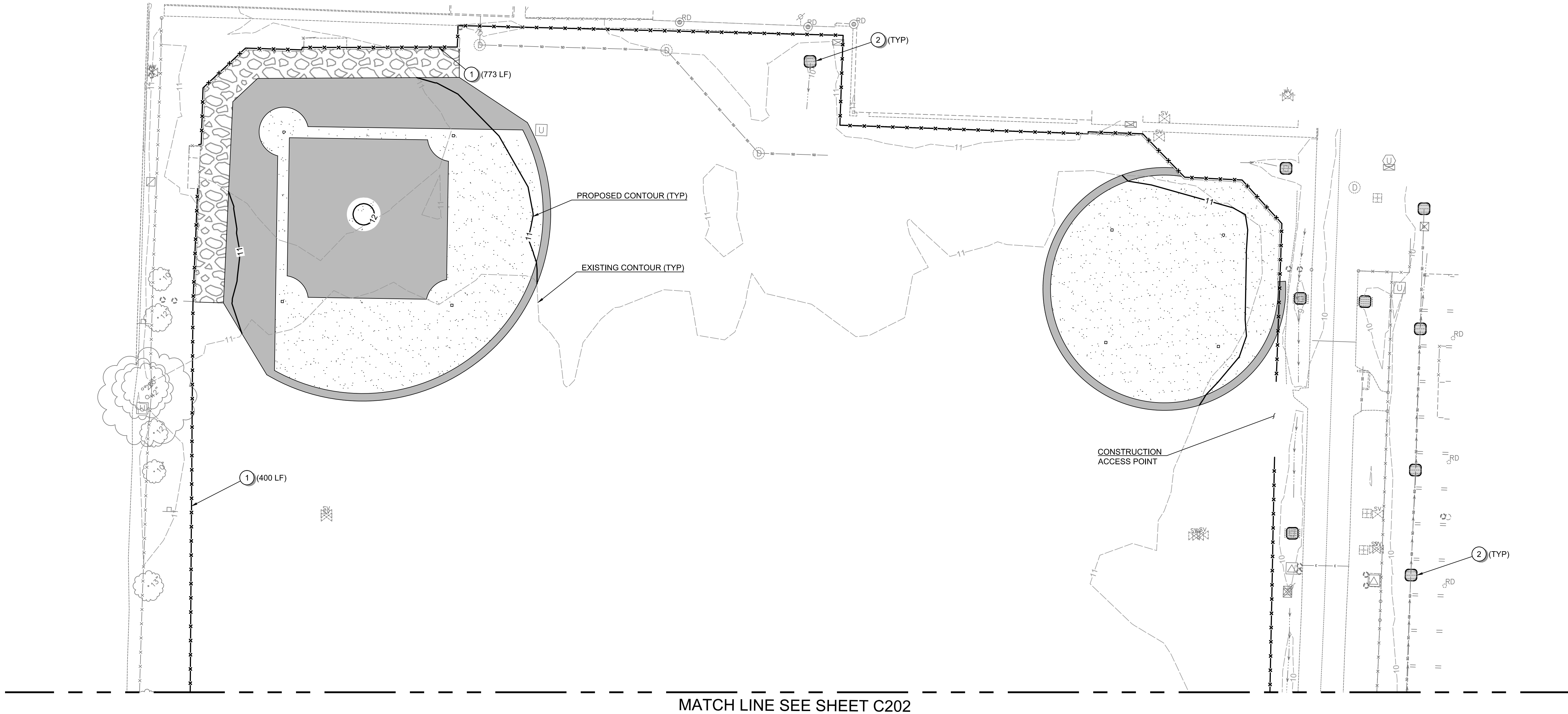
811
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CRISTINA AKI PEREZ
STATE OF WASHINGTON
45360
REGISTERED
PROFESSIONAL ENGINEER
03/21/2022

DESIGNED:
ANW
CHECKED:
EAP
MARCH 2022
71853-000

SHEET ID
C102
SHEET 5 OF 29

Filename: I:\Projects\17 1000\71853-000\Civil\CAD\Working\Sheets\71853-000_C201.dwg User: Allison Wilson CAD Plot Date/Time: 3/21/2022 3:55:23 PM Layout Tab: LAYOUT1

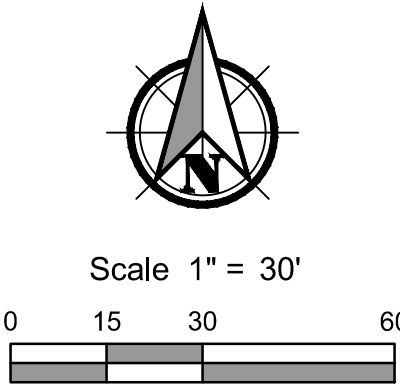


GENERAL NOTES

1. FOR GENERAL NOTES AND LEGEND, SEE SHEETS C002 AND C003.
2. FOR EROSION CONTROL DETAILS, SEE SHEET C203.
3. TO MINIMIZE RUNOFF FROM THE LANDSCAPED AND LAWN AREAS, BMP T5.13 POST-CONSTRUCTION SOIL QUALITY AND DEPTH IS REQUIRED ON ALL DISTURBED AREAS OUTSIDE OF THE BUILDING FOOTPRINT.

EROSION CONTROL NOTES

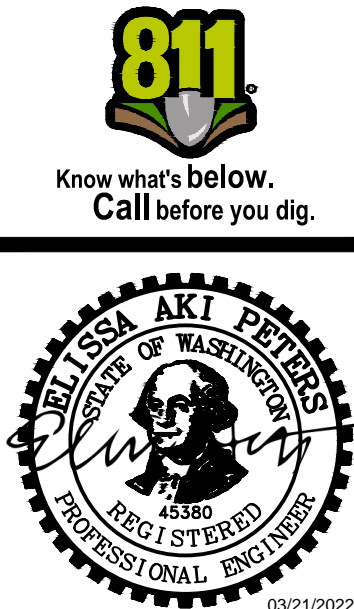
- ① SILT FENCE PER WSDOT STANDARD PLAN I-30.15, SEE SHEET C203. WHERE APPLICABLE, INSTALL SEDIMENT FENCE MIN. 1FT OUTSIDE EXISTING FENCE.
- ② INSTALL INLET PROTECTION PER WSDOT STANDARD PLAN I-40.22, SEE SHEET C203.



PERMIT SET

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EROSION CONTROL PLAN FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



DESIGNED:	ANW
CHECKED:	EAP
MARCH 2022	71853-000
SHEET ID	C201
SHEET	6 OF 29



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Filename: I:\Projects\171000\171853\171853-000\Civil\CAD\Working\Sheets\171853-000_C201.dwg Layout Tab: LAYOUT2 User: Allison Wilson CAD Plot Date/Time: 3/21/2022 3:55:31 PM

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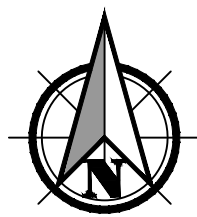
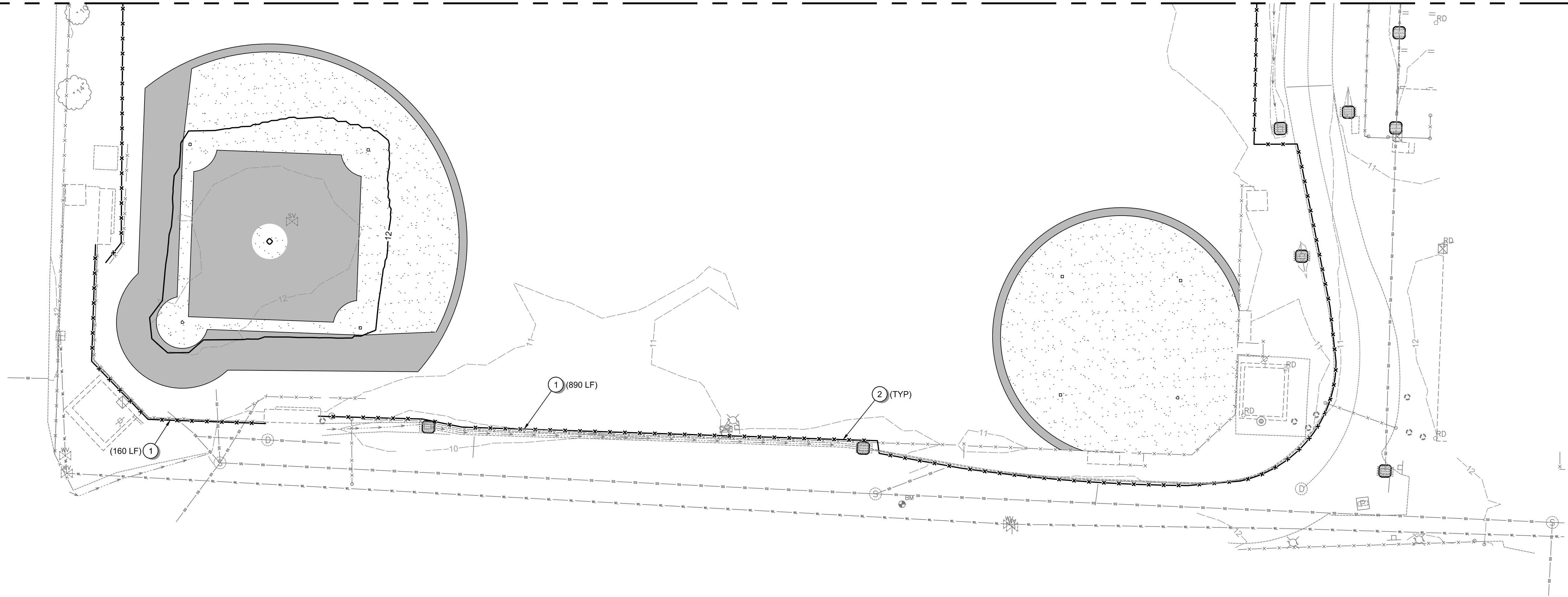
GENERAL NOTES

1. FOR GENERAL NOTES AND LEGEND, SEE SHEETS C002 AND C003.
2. FOR EROSION CONTROL DETAILS, SEE SHEET C203.
3. TO MINIMIZE RUNOFF FROM THE LANDSCAPED AND LAWN AREAS, BMP T5.13 POST-CONSTRUCTION SOIL QUALITY AND DEPTH IS REQUIRED ON ALL DISTURBED AREAS OUTSIDE OF THE BUILDING FOOTPRINT.

EROSION CONTROL NOTES

- ① SILT FENCE PER WSDOT STANDARD PLAN I-30.15, SEE SHEET C203. WHERE APPLICABLE, INSTALL SEDIMENT FENCE MIN. 1FT OUTSIDE EXISTING FENCE.
- ② INSTALL INLET PROTECTION PER WSDOT STANDARD PLAN I-40.22, SEE SHEET C203.

MATCH LINE SEE SHEET C201



Scale 1" = 30'

EROSION CONTROL PLAN FOR:

KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



DESIGNED:

ANW

CHECKED:

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MARCH 2022

71853-000

SHEET ID

C202

SHEET 7 OF 29

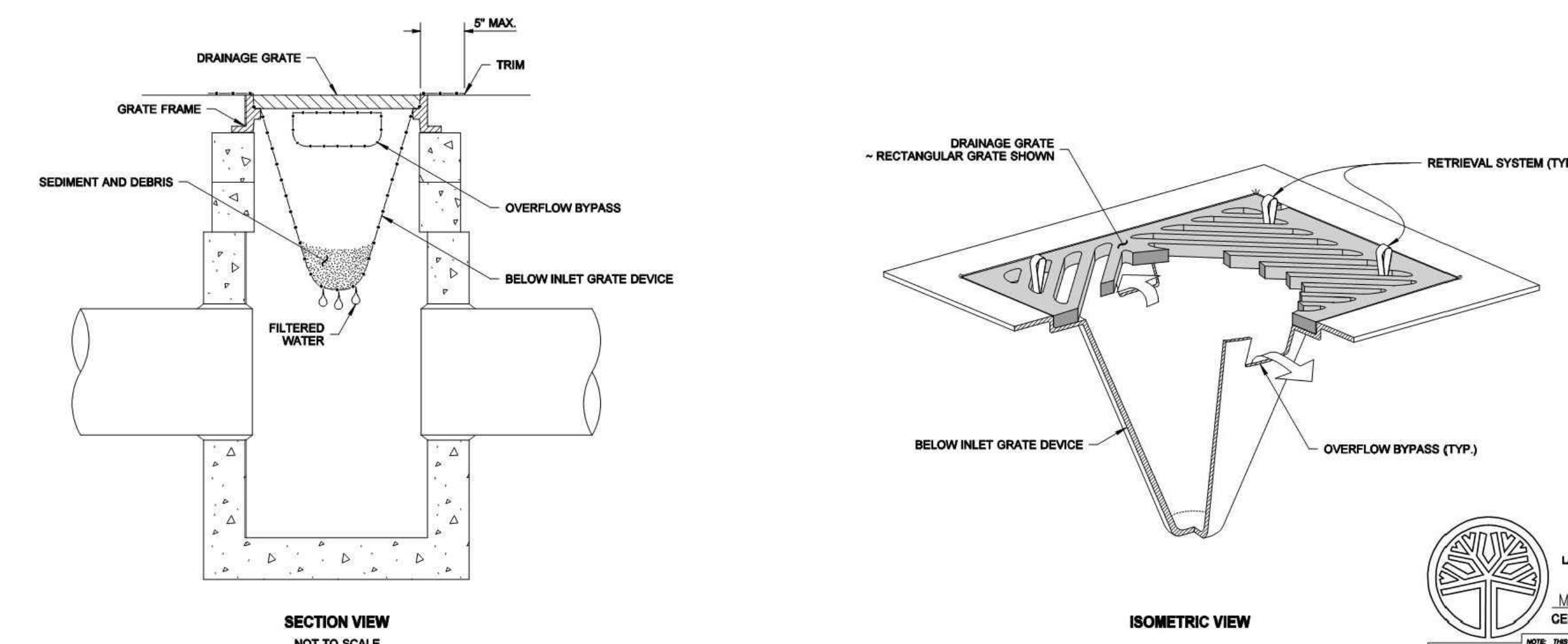
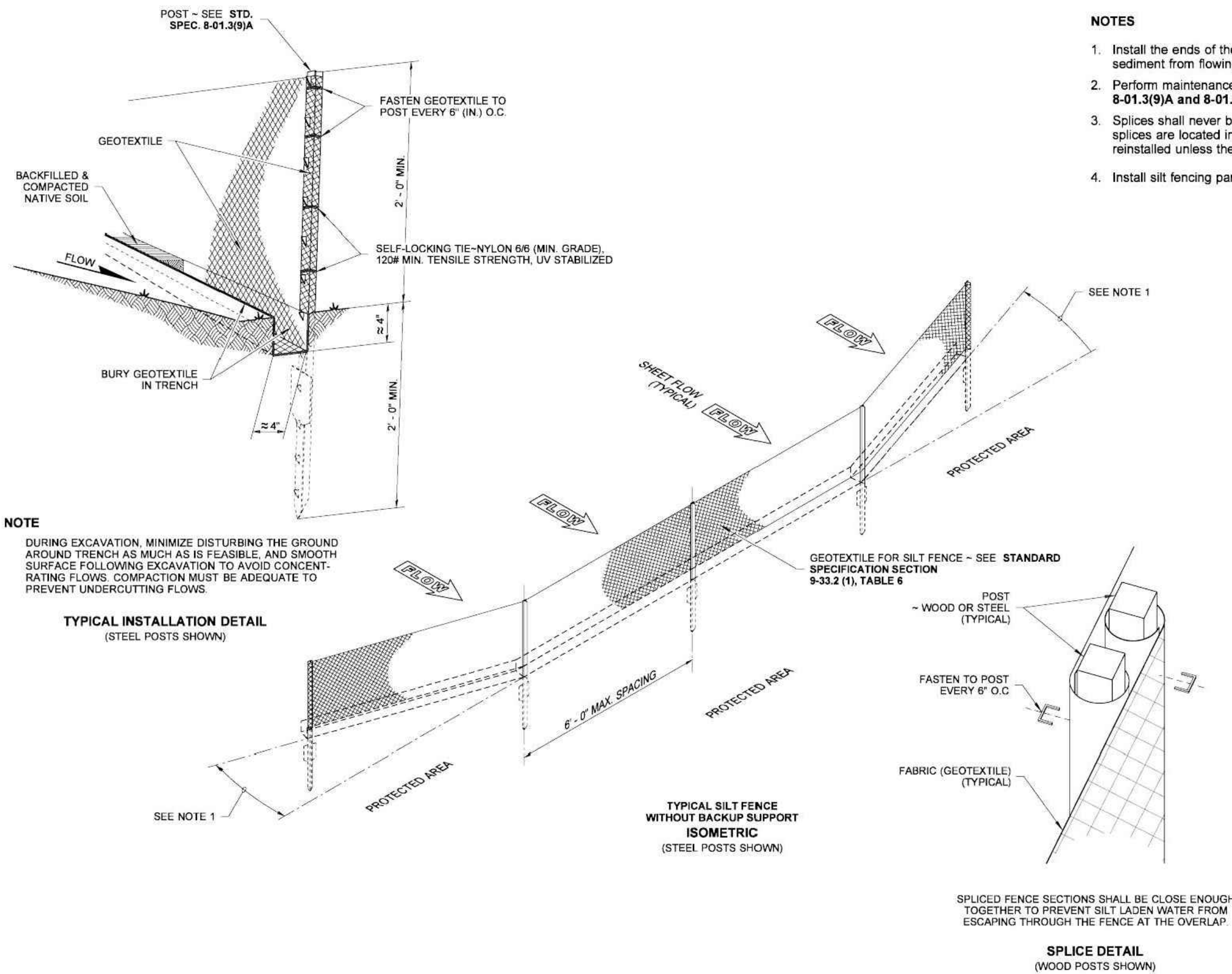


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DRAWN BY: LISA CYFORD

DRAWN BY: BILL BERGENS



PERMIT SET

EROSION CONTROL DETAILS FOR:



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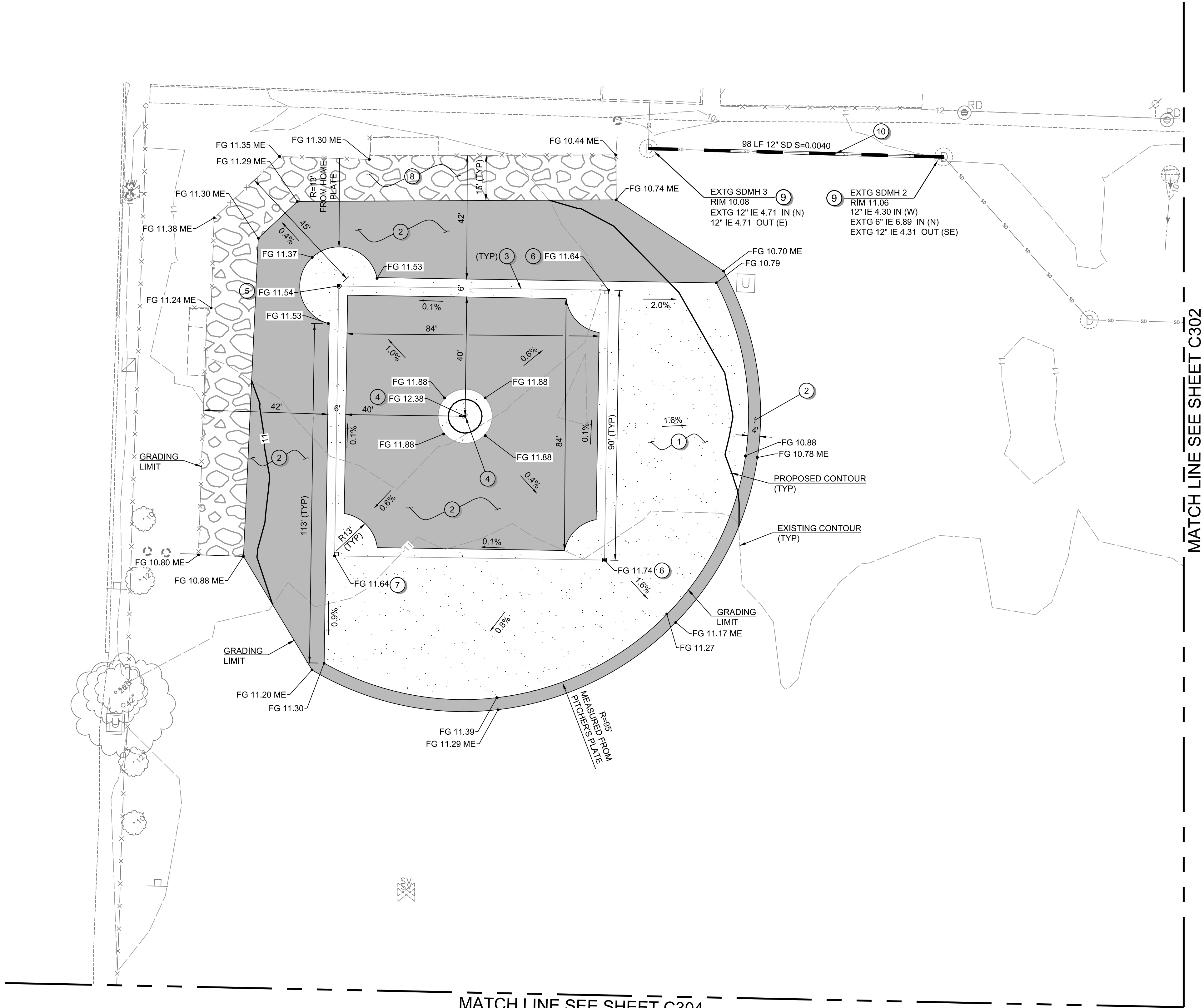
SHEET ID
C203

SHEET 8 OF 29

KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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MATCH LINE SEE SHEET C304

MATCH LINE SEE SHEET C302

GENERAL SHEET NOTES

1. FOR GENERAL NOTES AND LEGEND, SEE SHEETS C002 AND C003.

ABBREVIATIONS

FG = FINISHED GRADE

IE = INVERT ELEVATION

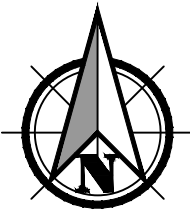
ME = MATCH EXISTING GRADE

CONSTRUCTION NOTES

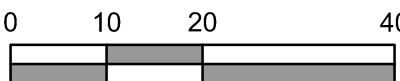
1. LUCKY BEAVER INFELD MIX OR APPROVED EQUAL PER TYPICAL SECTION ON SHEET C403.
2. SOD PER TYPICAL SECTION, SEE LANDSCAPE PLANS.
3. APPROXIMATE BASELINE. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
4. INSTALL CHAMPION SPORTS PITCHER'S PLATE WITH TRIPLE PLAY PITCHERS MOUND CLAY BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTION AND MOUND CONSTRUCTION. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
5. INSTALL CHAMPION SPORTS HOME PLATE WITH TRIPLE PLAY HOME PLATE CLAY BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTIONS AND FIELD DETAILS. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
6. INSTALL 15" x 15" CHAMPION SPORTS BREAKAWAY BASE, OR APPROVED EQUAL. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
7. INSTALL CHAMPION SPORTS BREAKAWAY DOUBLE FIRST BASE, OR APPROVED EQUAL. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
8. DIAMOND SELECT WARNING TRACK OR APPROVED EQUAL PER TYPICAL SECTION ON SHEET C403.
9. CONTRACTOR TO POTHOLE AND VERIFY IE AND CONNECT INTO EXISTING STORM MANHOLE.
10. INSTALL 12" STORM PIPE PER CITY OF KELSO STANDARD SPECIFICATIONS.
11. INSTALL CHAMPION SPORTS PITCHER'S PLATE WITH TRIPLE PLAY PITCHER'S PLATE BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTION AND MOUND CONSTRUCTION. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.

CUT AND FILL QUANTITIES	
CUT	210 CY
FILL	90 CY
NET CUT	120 CY

EARTHWORK INCLUDES 0.25' SECTION FOR INFELD MIX, AND 0.33' SECTION FOR WARNING TRACK.

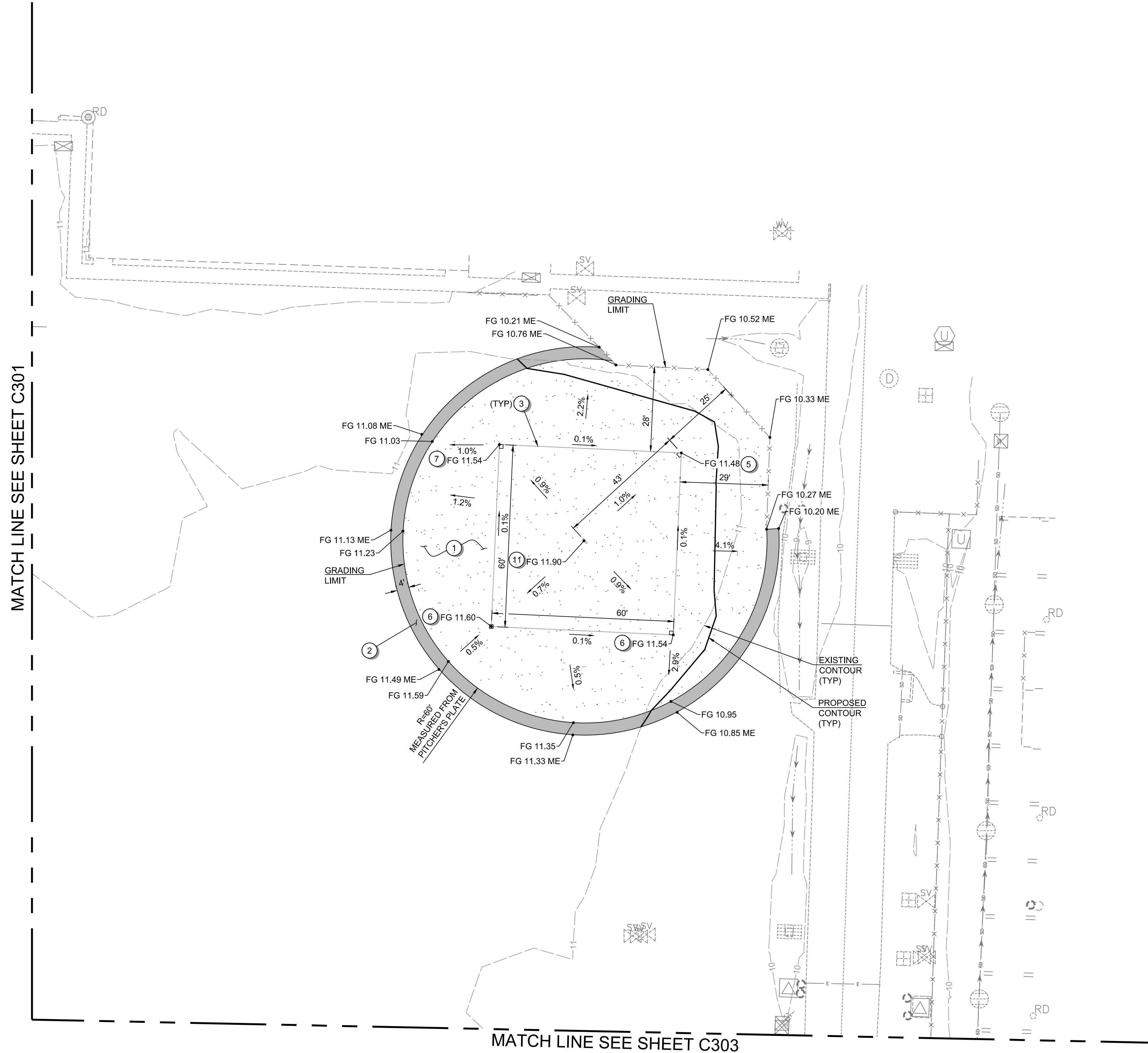


Scale 1" = 20'

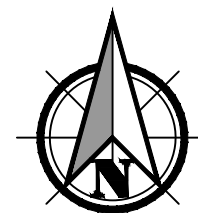


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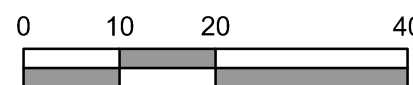
MATCH LINE SEE SHEET C301



MATCH LINE SEE SHEET C303



Scale 1" = 20'



PERMIT SET

GENERAL SHEET NOTES

1. FOR GENERAL NOTES AND LEGEND, SEE SHEETS C002 AND C003.

ABBREVIATIONS

FG = FINISHED GRADE

IE = INVERT ELEVATION

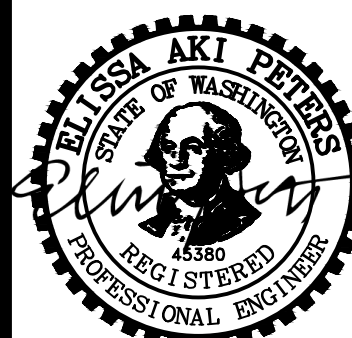
ME = MATCH EXISTING GRADE

CONSTRUCTION NOTES

- ① LUCKY BEAVER INFIELD MIX OR APPROVED EQUAL PER TYPICAL SECTION ON SHEET C403.
- ② SOD PER TYPICAL SECTION, SEE LANDSCAPE PLANS.
- ③ APPROXIMATE BASELINE. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
INSTALL CHAMPION SPORTS PITCHER'S PLATE WITH TRIPLE PLAY PITCHERS MOUND CLAY BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTION AND MOUND CONSTRUCTION. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
- ④ INSTALL CHAMPION SPORTS HOME PLATE WITH TRIPLE PLAY HOME PLATE CLAY BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTIONS AND FIELD DETAILS. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
- ⑤ INSTALL 15" x 15" CHAMPION SPORTS BREAKAWAY BASE, OR APPROVED EQUAL. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
- ⑥ INSTALL CHAMPION SPORTS BREAKAWAY DOUBLE FIRST BASE, OR APPROVED EQUAL. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
- ⑦ DIAMOND SELECT WARNING TRACK OR APPROVED EQUAL PER TYPICAL SECTION ON SHEET C403.
- ⑧ CONTRACTOR TO POTHOLE AND VERIFY IE AND CONNECT INTO EXISTING STORM MANHOLE.
- ⑨ INSTALL 12" STORM PIPE PER CITY OF KELSEY STANDARD SPECIFICATIONS.
- ⑩ INSTALL CHAMPION SPORTS PITCHER'S PLATE WITH TRIPLE PLAY PITCHER'S PLATE BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTION AND MOUND CONSTRUCTION. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
- ⑪



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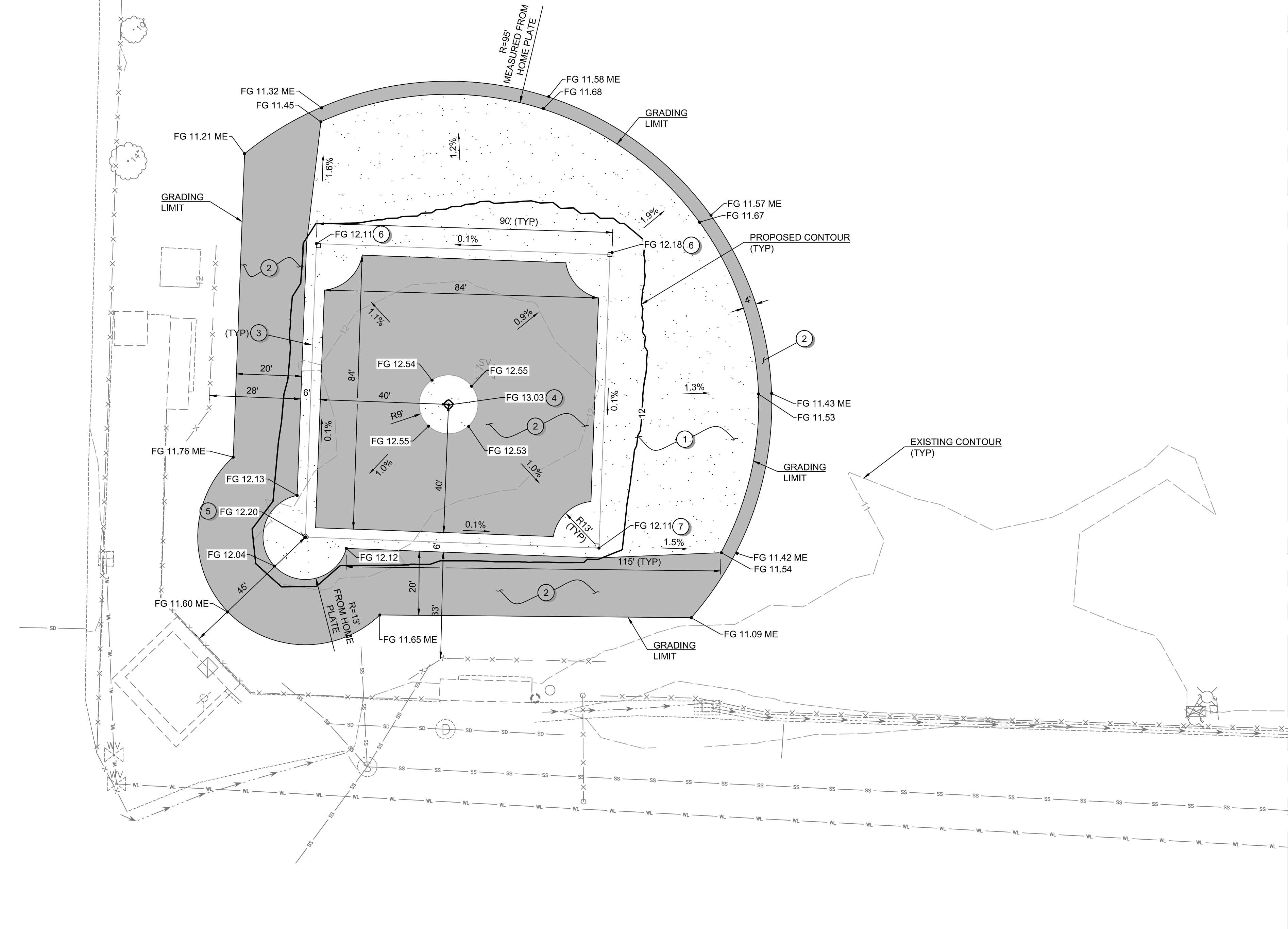
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11 INSTALL CHAMPION SPORTS PITCHER'S PLATE WITH TRIPLE PLAY PITCHER'S PLATE BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTION AND MOUND CONSTRUCTION. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.



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GENERAL SHEET NOTES

1. FOR GENERAL NOTES AND LEGEND, SEE SHEETS C002 AND C003.

ABBREVIATIONS

FG = FINISHED GRADE

IE = INVERT ELEVATION

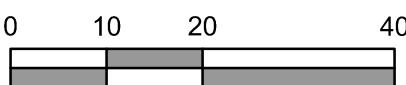
ME = MATCH EXISTING GRADE

CONSTRUCTION NOTES

1. LUCKY BEAVER INFILTRATION MIX OR APPROVED EQUAL PER TYPICAL SECTION ON SHEET C403.
2. SOD PER TYPICAL SECTION, SEE LANDSCAPE PLANS.
3. APPROXIMATE BASELINE. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
4. INSTALL CHAMPION SPORTS PITCHER'S PLATE WITH TRIPLE PLAY PITCHERS MOUND CLAY BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTION AND MOUND CONSTRUCTION. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
5. INSTALL CHAMPION SPORTS HOME PLATE WITH TRIPLE PLAY HOME PLATE CLAY BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTIONS AND FIELD DETAILS. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
6. INSTALL 15" x 15" CHAMPION SPORTS BREAKAWAY BASE, OR APPROVED EQUAL. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
7. INSTALL CHAMPION SPORTS BREAKAWAY DOUBLE FIRST BASE, OR APPROVED EQUAL. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.
8. DIAMOND SELECT WARNING TRACK OR APPROVED EQUAL PER TYPICAL SECTION ON SHEET C403.
9. CONTRACTOR TO POTHOLE AND VERIFY IE AND CONNECT INTO EXISTING STORM MANHOLE.
10. INSTALL 12" STORM PIPE PER CITY OF KELSO STANDARD SPECIFICATIONS.
11. INSTALL CHAMPION SPORTS PITCHER'S PLATE WITH TRIPLE PLAY PITCHER'S PLATE BRICKS LAYOUT OR APPROVED EQUAL. SEE SHEET C401-C402 AND C403 FOR FIELD CROSS SECTION AND MOUND CONSTRUCTION. SEE SHEET C404 FOR STANDARD FIELD DIMENSIONS.

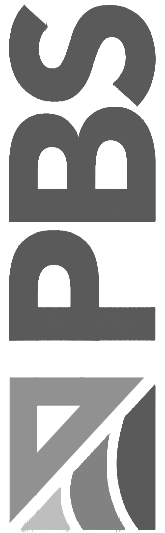


Scale 1" = 20'



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SW BASEBALL FIELD SITE GRADING AND STORMWATER PLAN FOR:

KELSO HIGH SCHOOL PRACTICE FIELDS

A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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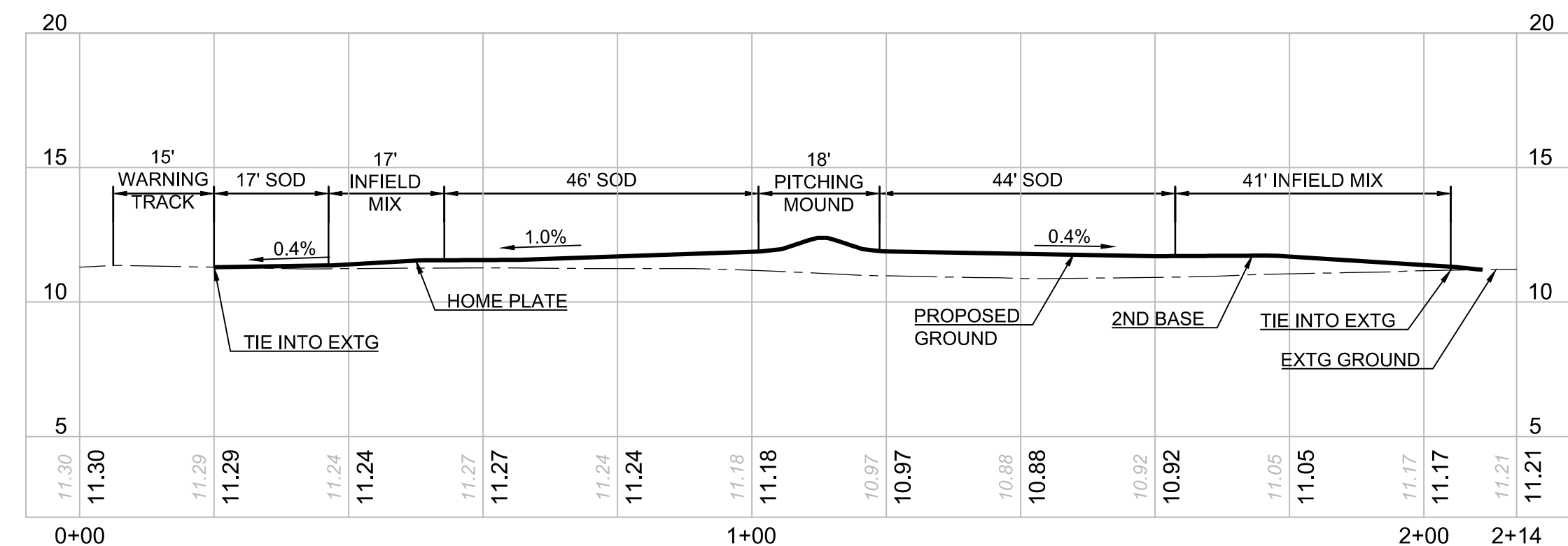
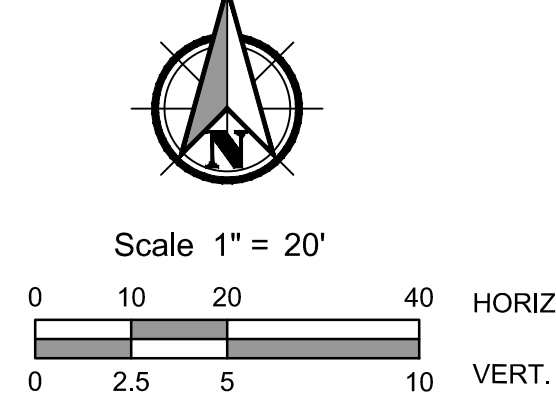
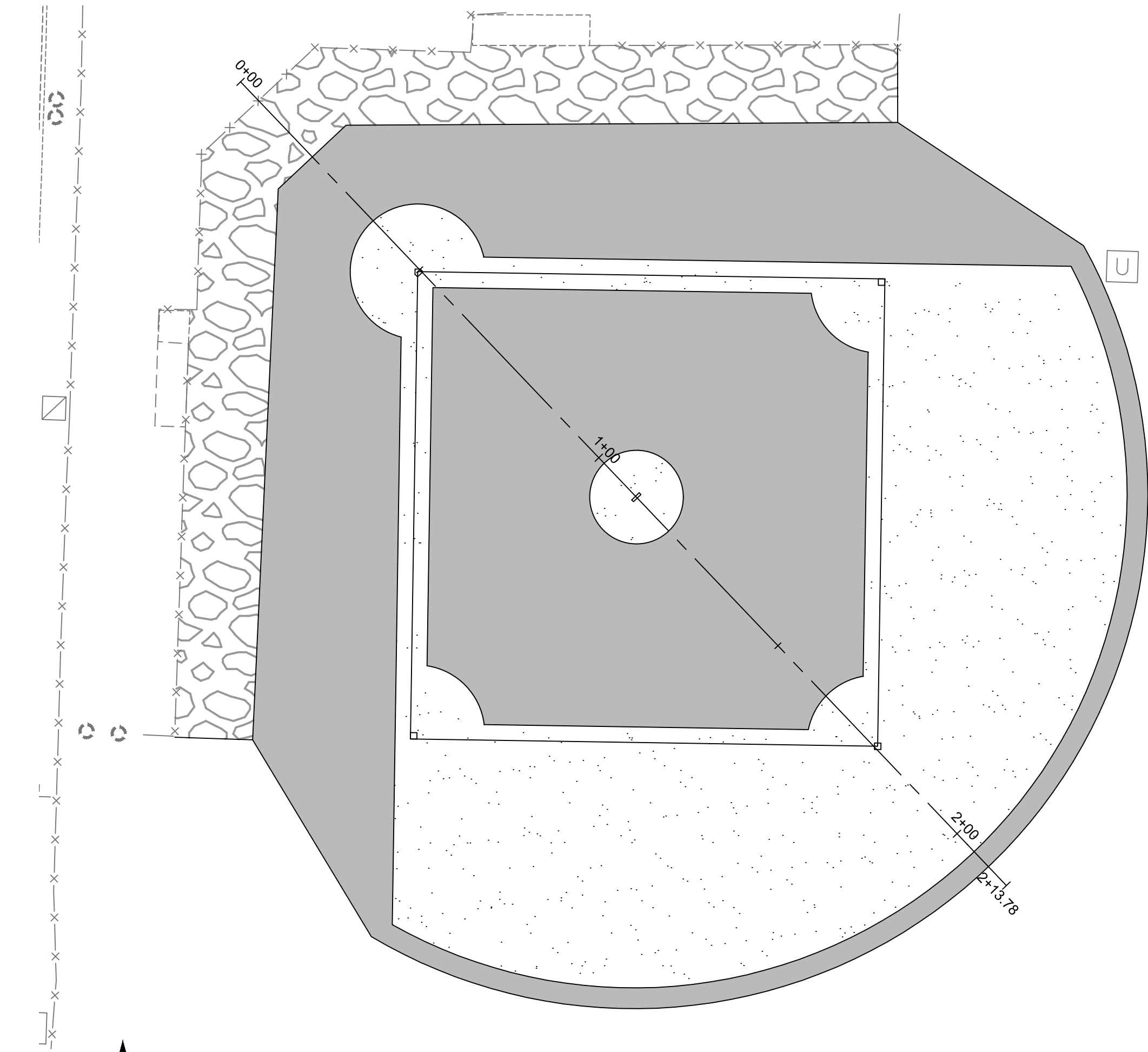
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SHEET ID

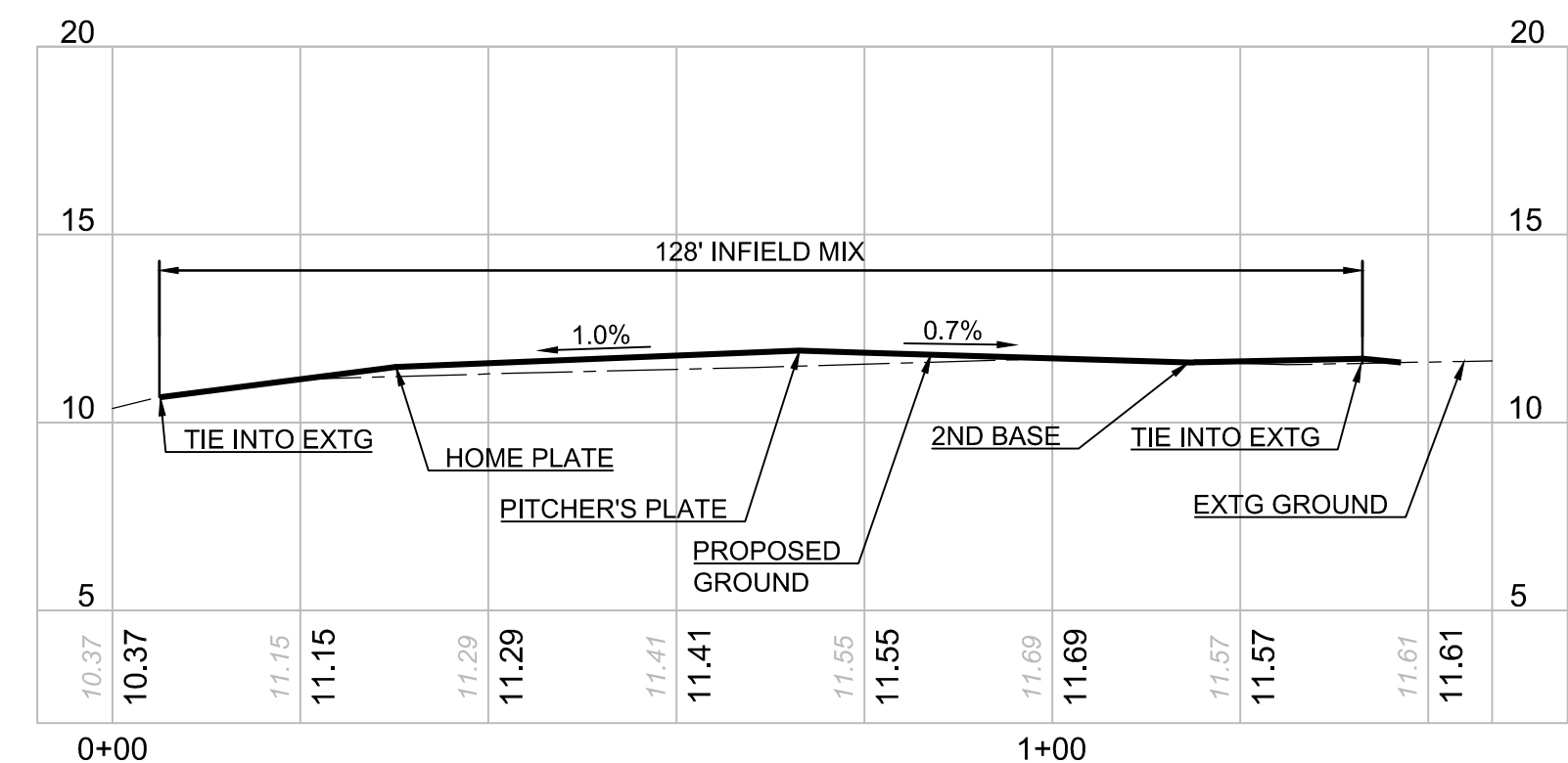
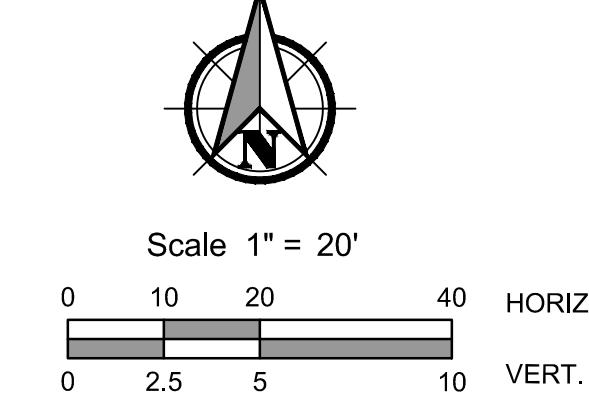
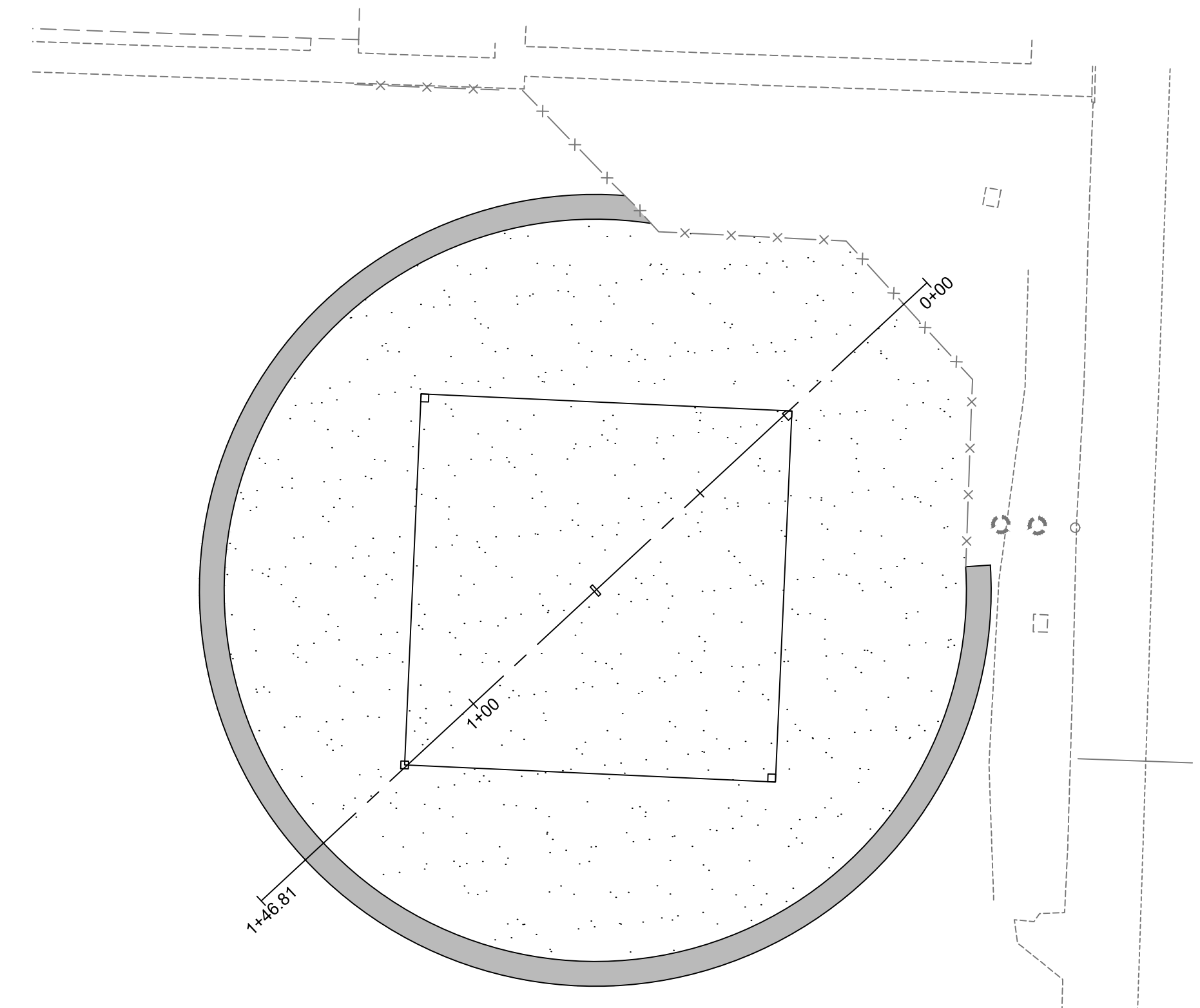
C304

SHEET 12 OF 29

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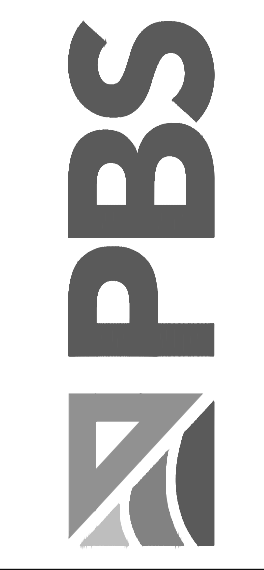


NW FIELD CROSS SECTION

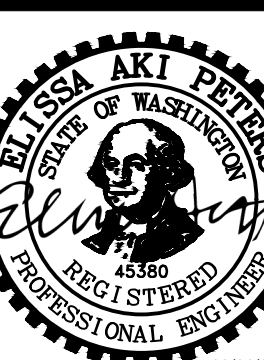


NE FIELD CROSS SECTION

PERMIT SET

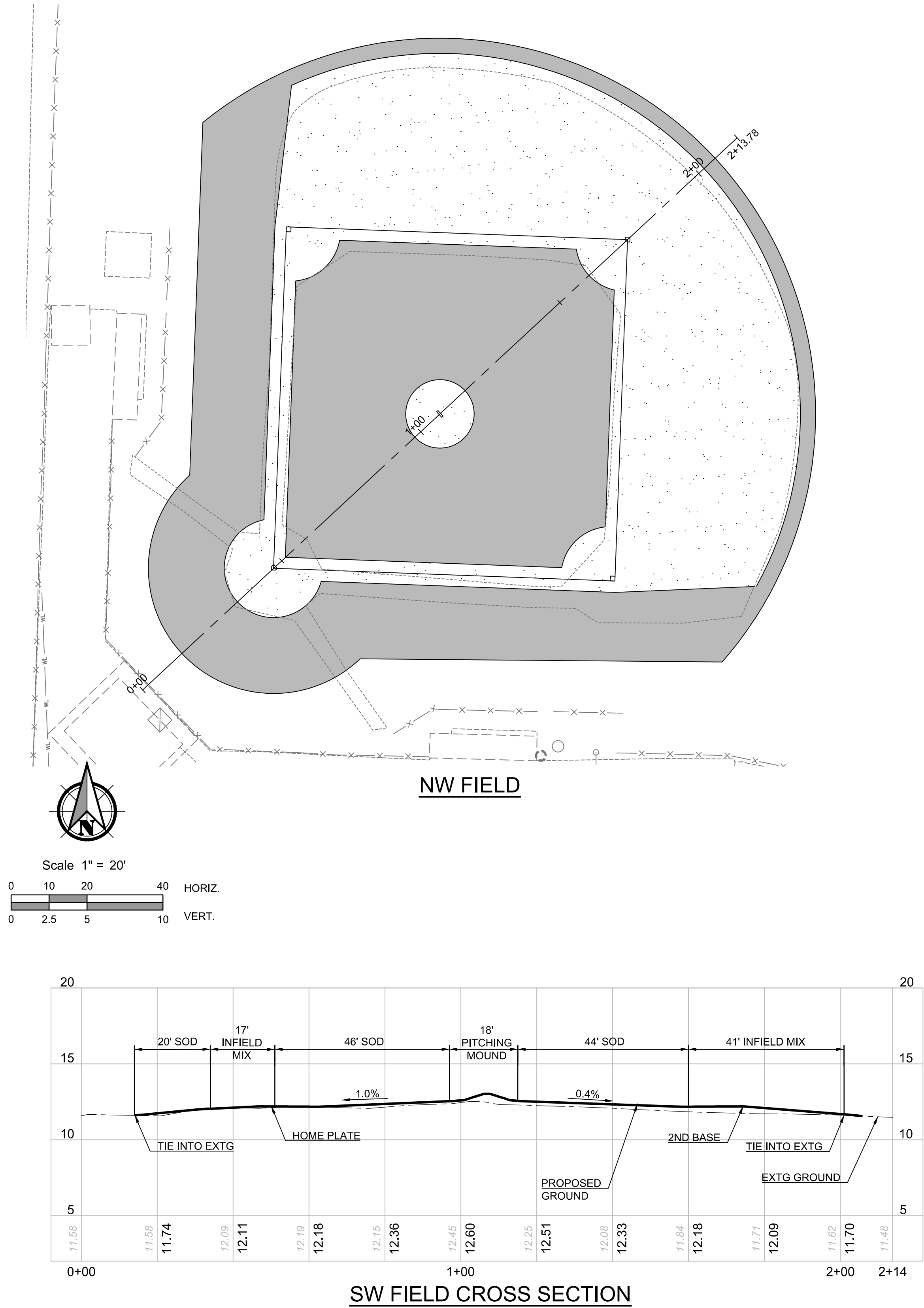


NORTH FIELD CROSS SECTIONS FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON

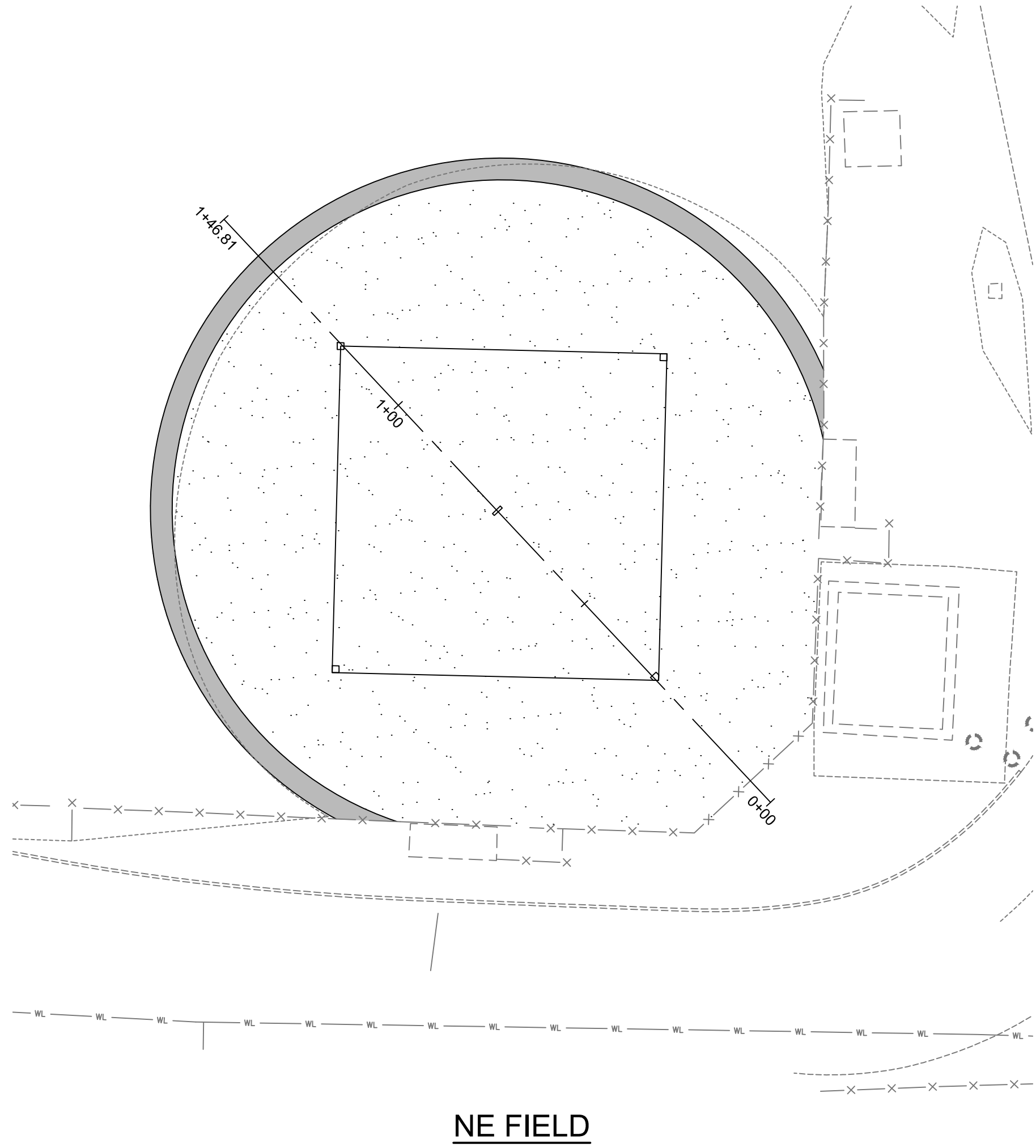


DESIGNED:	ANW
CHECKED:	EAP
MARCH 2022	71853-000
SHEET ID	C401
SHEET	13 OF 29

Filename: \\Projects\\71000\\71853-000\\Civil\\CAD\\WorkingSheets\\71853-000_C401.dwg User: Allison Wilson CAD Plot Date/Time: 3/21/2022 3:57:09 PM



SW FIELD CROSS SECTION



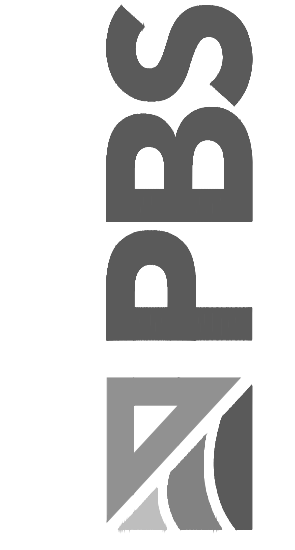
SE FIELD CROSS SECTION

PERMIT SET



DESIGNED:	ANW
CHECKED:	EAP
MARCH 2022	71853-000
SHEET ID	C402
SHEET	14 OF 29

SOUTH FIELD CROSS SECTIONS FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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NTS

- WARNING TRACK MIX
TYPICAL SECTION

NTS

- [illegible]

PITCHING MOUND LAYOUT

NTS



NTS



NTS

PERMIT SET

Filename: I:\Projects\171000\171853\171853-000\Civil\CAD\Working\Sheets\171853-000_IRR01.dwg Layout Tab: IRR01 User: Allison Wilson CAD Plot Date/Time: 3/21/2022 3:58:03 PM

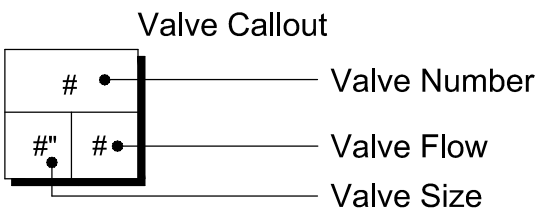
IRRIGATION SCHEDULE KELSO HIGH SCHOOL PRACTICE FIELD UPDATES

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS	DETAIL
04	Rain Bird 8005-NP Turf Rotor, 5" Pop-Up, Plastic Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cap.	31	60	3.80	35'	IRR06
	Rain Bird 8005 Series Sod Cups	31				
06	Rain Bird 8005-NP Turf Rotor, 5" Pop-Up, Plastic Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cap.	10	60	6.10	40'	IRR06
	Rain Bird 8005 Series Sod Cups	10				
08	Rain Bird 8005-NP Turf Rotor, 5" Pop-Up, Plastic Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cap.	8	60	8.40	44'	IRR06
	Rain Bird 8005 Series Sod Cups	8				
10	Rain Bird 8005-NP Turf Rotor, 5" Pop-Up, Plastic Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cap.	1	60	10.1	47'	IRR06
	Rain Bird 8005 Series Sod Cups	1				
12	Rain Bird 8005-NP Turf Rotor, 5" Pop-Up, Plastic Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cap.	85	60	12.0	53'	IRR06
	Rain Bird 8005 Series Sod Cups	85				
16	Rain Bird 8005-NP Turf Rotor, 5" Pop-Up, Plastic Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cap.	13	60	15.9	58'	IRR06
	Rain Bird 8005 Series Sod Cups	13				
18	Rain Bird 8005-NP Turf Rotor, 5" Pop-Up, Plastic Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" (26/34) NPT. Extended Radius is Ideal for Large Turf Applications. Non-Potable Purple Cap.	5	60	17.8	58'	IRR06
	Rain Bird 8005 Series Sod Cups	5				

IRRIGATION NOTES:

- LOCATE AND VERIFY ALL UTILITY LINES PRIOR TO EXCAVATION OR CONSTRUCTION. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ALL DAMAGES CAUSED AS A RESULT OF THEIR WORK.
- COORDINATE IRRIGATION POINTS OF CONNECTION, LOCATION OF AUTOMATIC CONTROL VALVES AND OVERALL IRRIGATION SYSTEM WITH SITE IMPROVEMENTS. CONTRACTOR SHALL NOT PROCEED WITH INSTALLATION WHEN OBSTRUCTIONS OR DISCREPANCIES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATIONS.
- FIELD VERIFY EXISTING WATER PRESSURE PRIOR TO INSTALLATION. SYSTEM IS DESIGNED TO OPERATE AT 60 TO 70 PSI AT P.O.C..
- PIPE LOCATIONS, VALVES AND OTHER COMPONENTS ARE SHOWN DIAGRAMMATICALLY FOR CLARITY. PIPING ARE TO SHARE COMMON TRENCH WHEREVER POSSIBLE. ANY REROUTING OR CHANGES TO PIPE LOCATIONS SHALL BE AT THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- PIPE SIZES SHALL NOT BE DECREASED. LARGER SIZED PIPE CAN BE USED AT NO ADDITIONAL COST TO OWNER.
- IRRIGATION SLEEVES ARE SHOWN AT APPROXIMATE LOCATIONS. ALL PIPING AND CONTROL WIRING PROPOSED UNDER PAVEMENT SHALL BE INSTALLED IN 4" SCH80 PVC SLEEVE UNLESS OTHERWISE NOTED. INSTALL SLEEVES PRIOR TO PLACEMENT OF PAVEMENT WHENEVER POSSIBLE. BORING SHALL AT BE NO COST TO OWNER UNLESS OTHERWISE SPECIFIED.
- CONTROLLER TO BE LOCATED AS SHOWN ON PLANS OR AS VERIFIED IN FIELD BY OWNER'S REPRESENTATIVE. COORDINATE POWER CONNECTIONS FOR CONTROLLER LOCATIONS.
- CONTRACTOR SHALL STAKE ALL IRRIGATION ROTOR HEADS PRIOR TO INSTALLATION FOR APPROVAL OF OWNER'S REPRESENTATIVE. ADJUST HEAD LOCATIONS BASED ON FIELD CONDITIONS AND RECOMMENDATIONS BY OWNER'S REPRESENTATIVE.
- THE SUMMARY OF QUANTITIES FOR THE IRRIGATION SYSTEM COMPONENTS AS LISTED IS FOR THE CONVENIENCE TO THE CONTRACTOR IN DETERMINING THE EXTENT OF THE WORK. ACTUAL QUANTITIES MAY VARY AND DOES NOT INCLUDE NECESSARY FITTINGS, MINOR REROUTING AND OTHER DEVIATIONS. CONTRACTOR TO PROVIDE ALL IRRIGATION EQUIPMENT, PIPE, FITTINGS AND ACCESSORIES NECESSARY TO COMPLETE THE IRRIGATION SYSTEM AS SPECIFIED.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
C	Rain Bird ESP12LXMEF w/ (2) ESPLXMSM12	1	IRR06
1	Rain Bird CLP: BYPASS PUMP	1	N/A
	Rain Bird PEB-NP-HAN-PRS-D 2" 1", 1-1/2", 2" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration. With Purple Handle for Non-Potable Water Use.	21	IRR06
POC	3" Existing Connection	1	IRR06
	Rain Bird 33-DLRC 3/4" 3/4" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, Double Track Key Lug, and 2-Piece Body.	5	IRR06
	Ball Valve, 2" PVC Schedule 80	5	IRR06
	Irrigation Lateral Line: PVC Schedule 40-NP 1" Size are labeled on the plans.	2,100 LF	IRR06
	Irrigation Lateral Line: PVC Schedule 40-NP 1 1/2" Size are labeled on the plans.	2,150 LF	IRR06
	Irrigation Lateral Line: PVC Schedule 40-NP 2" Size are labeled on the plans.	1,850 LF	IRR06
	Irrigation Lateral Line: PVC Schedule 40-NP 2 1/2" Size are labeled on the plans.	600 LF	IRR06
	Irrigation Lateral Line: PVC Schedule 40-NP 3" Size are labeled on the plans.	880 LF	IRR06
	Irrigation Mainline: PVC Schedule 40-NP 2 1/2" Size are labeled on the plans.	40 LF	IRR06
	Irrigation Mainline: PVC Schedule 40-NP 3" Size are labeled on the plans.	2,680 LF	IRR06



VALVE SCHEDULE							
NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	PSI	PRECIP
10	Rain Bird PEB-NP-HAN	2"	Turf Rotor	96.00	8	69.89	0.55 in/h
11	Rain Bird PEB-NP-HAN	2"	Turf Rotor	90.10	7	69.17	1.35 in/h
12	Rain Bird PEB-NP-HAN	2"	Turf Rotor	68.10	5	67.31	4.24 in/h
13	Rain Bird PEB-NP-HAN	2"	Turf Rotor	96.00	8	69.34	0.46 in/h
14	Rain Bird PEB-NP-HAN	2"	Turf Rotor	60.00	5	69.34	1.29 in/h
15	Rain Bird PEB-NP-HAN	2"	Turf Rotor	44.40	4	66.98	0.51 in/h
16	Rain Bird PEB-NP-HAN	2"	Turf Rotor	70.20	5	66.54	2.28 in/h
17	Rain Bird PEB-NP-HAN	2"	Turf Rotor	96.00	8	69.9	0.47 in/h
18	Rain Bird PEB-NP-HAN	2"	Turf Rotor	92.40	8	69.45	0.7 in/h
19	Rain Bird PEB-NP-HAN	2"	Turf Rotor	55.80	7	68.11	1.4 in/h
20	Rain Bird PEB-NP-HAN	2"	Turf Rotor	55.00	8	68.53	0.83 in/h
21	Rain Bird PEB-NP-HAN	2"	Turf Rotor	63.60	4	67.46	1.1 in/h
22	Rain Bird PEB-NP-HAN	2"	Turf Rotor	89.00	14	70.42	0.94 in/h
23	Rain Bird PEB-NP-HAN	2"	Turf Rotor	96.00	8	69.45	0.72 in/h
24	Rain Bird PEB-NP-HAN	2"	Turf Rotor	96.00	8	71.94	0.47 in/h
25	Rain Bird PEB-NP-HAN	2"	Turf Rotor	67.80	5	67.84	1.07 in/h
26	Rain Bird PEB-NP-HAN	2"	Turf Rotor	63.60	4	67.02	1.0 in/h
27	Rain Bird PEB-NP-HAN	2"	Turf Rotor	45.60	12	68.83	0.79 in/h
28	Rain Bird PEB-NP-HAN	2"	Turf Rotor	38.00	9	67.46	0.45 in/h
29	Rain Bird PEB-NP-HAN	2"	Turf Rotor	96.00	8	69.82	0.88 in/h
30	Rain Bird PEB-NP-HAN	2"	Turf Rotor	96.00	8	71.29	1.0 in/h

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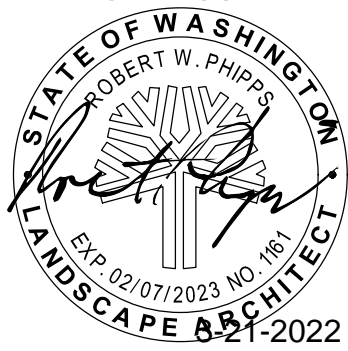


IRRIGATION NOTES FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



Know what's below.
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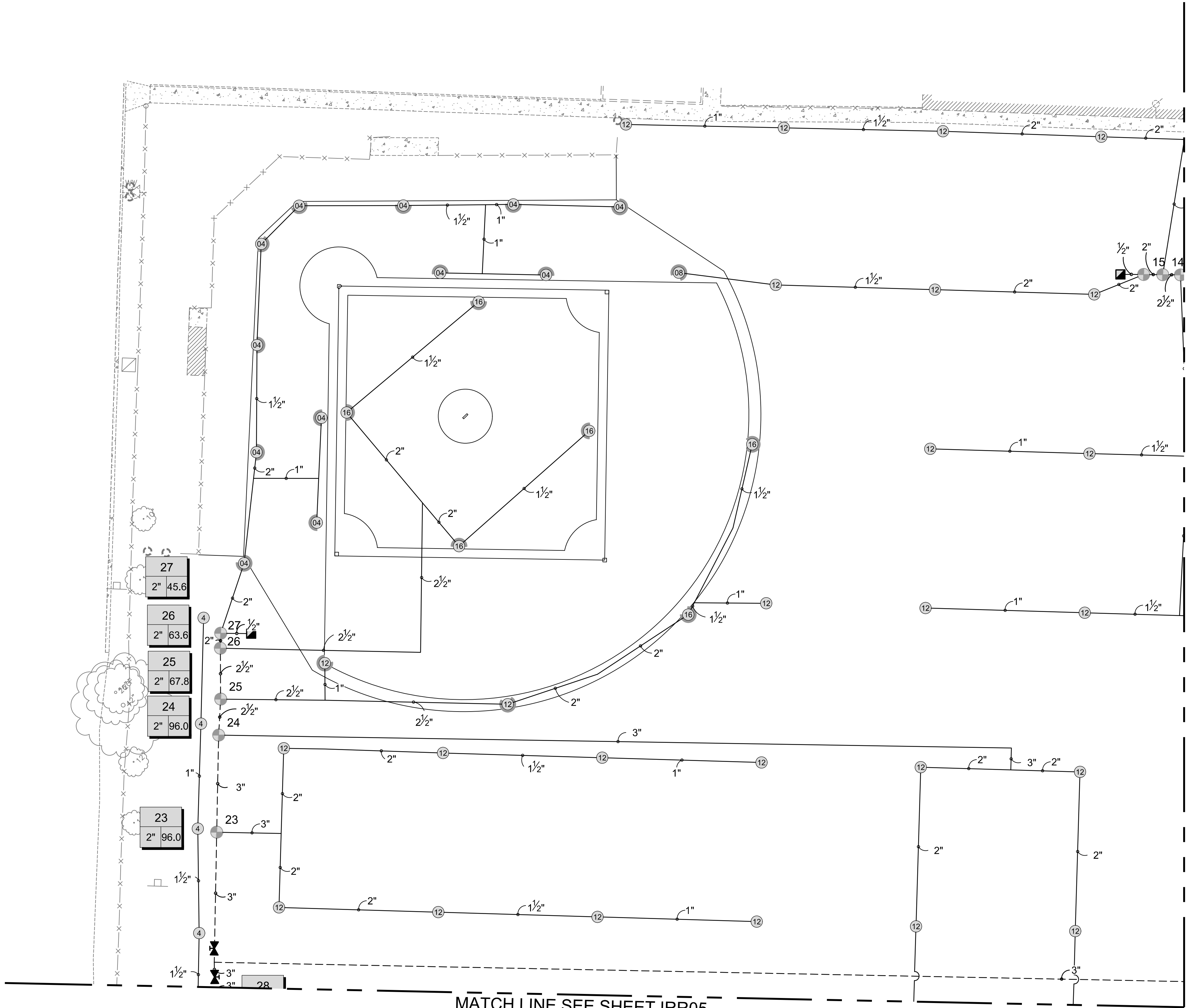
MARCH 2022
171853-000

SHEET ID

IRR01

SHEET **17** OF **29**

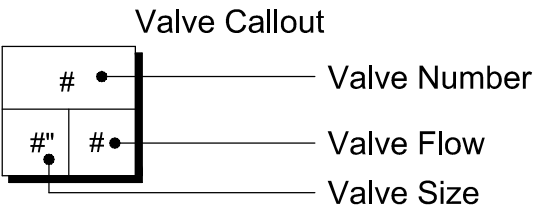
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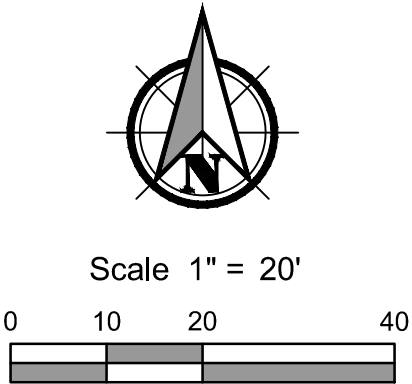
MATCH LINE SEE SHEET IRR03

MATCH LINE SEE SHEET IRR05

LEGEND	
SYMBOL	MANUFACTURER/MODEL
04	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
06	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
08	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
10	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
12	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
16	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
18	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
SYMBOL	MANUFACTURER/MODEL
☉	Rain Bird PEB-NP-HAN-PRS-D 2"
▣	Rain Bird 33-DLRC 3/4"
POC	Point of Connection 3" Existing Main Line
✕	Ball Valve, 2" PVC Schedule 80
—————	Irrigation Lateral Line: PVC Schedule 40-NP 1"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 1 1/2"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 2"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 2 1/2"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 3"
— — — — —	Irrigation Mainline: PVC Schedule 40-NP 2 1/2"
— — — — —	Irrigation Mainline: PVC Schedule 40-NP 3"

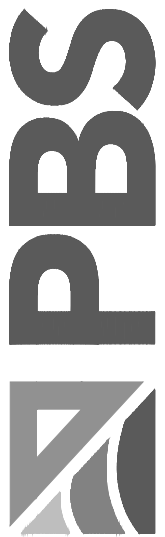


- IRRIGATION CONSTRUCTION NOTES**
- ① LOCATE EXISTING MAINLINE AND TIE INTO SYSTEM.



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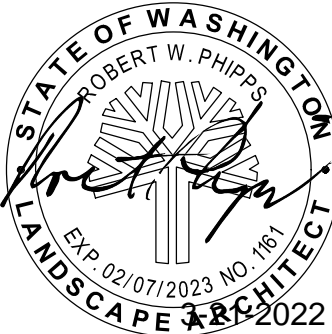


IRRIGATION PLAN FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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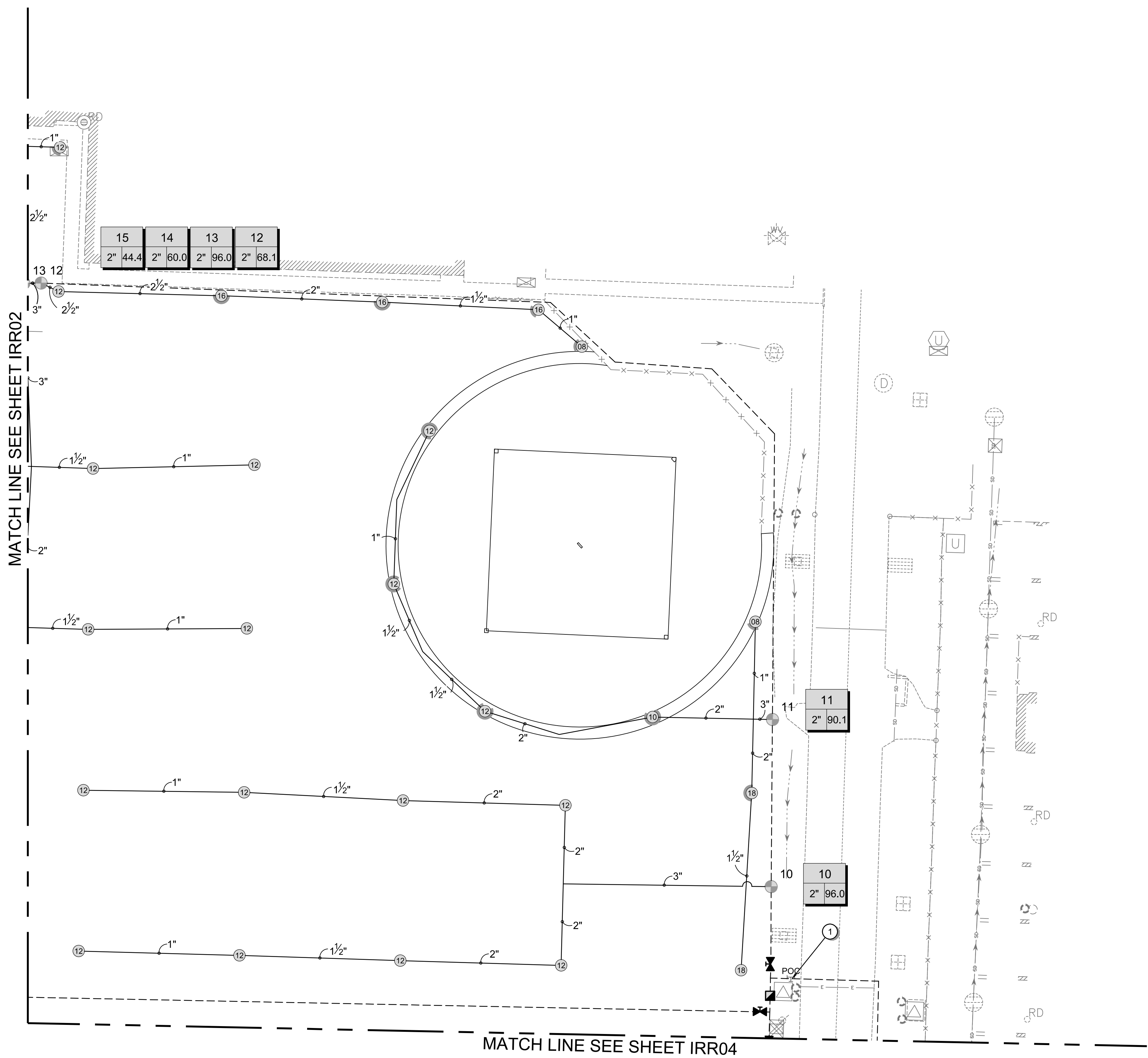
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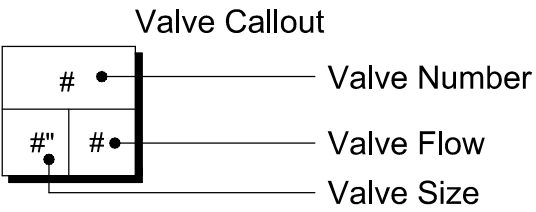
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IRR02
SHEET 18 OF 29

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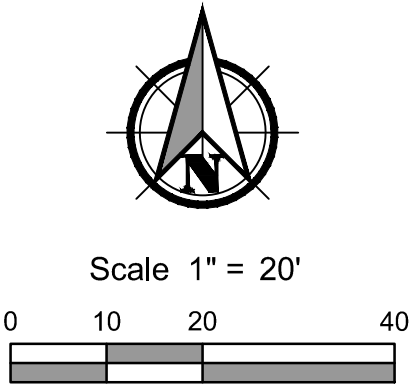


15	14	13	12
2" 44.4	2" 60.0	2" 96.0	2" 68.1

LEGEND	
SYMBOL	MANUFACTURER/MODEL
04	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
06	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
08	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
10	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
12	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
16	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
18	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
SYMBOL	MANUFACTURER/MODEL
☉	Rain Bird PEB-NP-HAN-PRS-D 2"
■	Rain Bird 33-DLRC 3/4"
POC	Point of Connection 3" Existing Main Line
✕	Ball Valve, 2" PVC Schedule 80
—————	Irrigation Lateral Line: PVC Schedule 40-NP 1"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 1 1/2"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 2"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 2 1/2"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 3"
-----	Irrigation Mainline: PVC Schedule 40-NP 2 1/2"
-----	Irrigation Mainline: PVC Schedule 40-NP 3"



- IRRIGATION CONSTRUCTION NOTES**
- ① LOCATE EXISTING MAINLINE AND TIE INTO SYSTEM.



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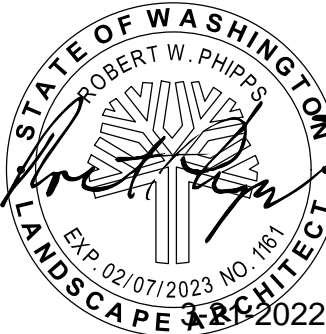


IRRIGATION PLAN FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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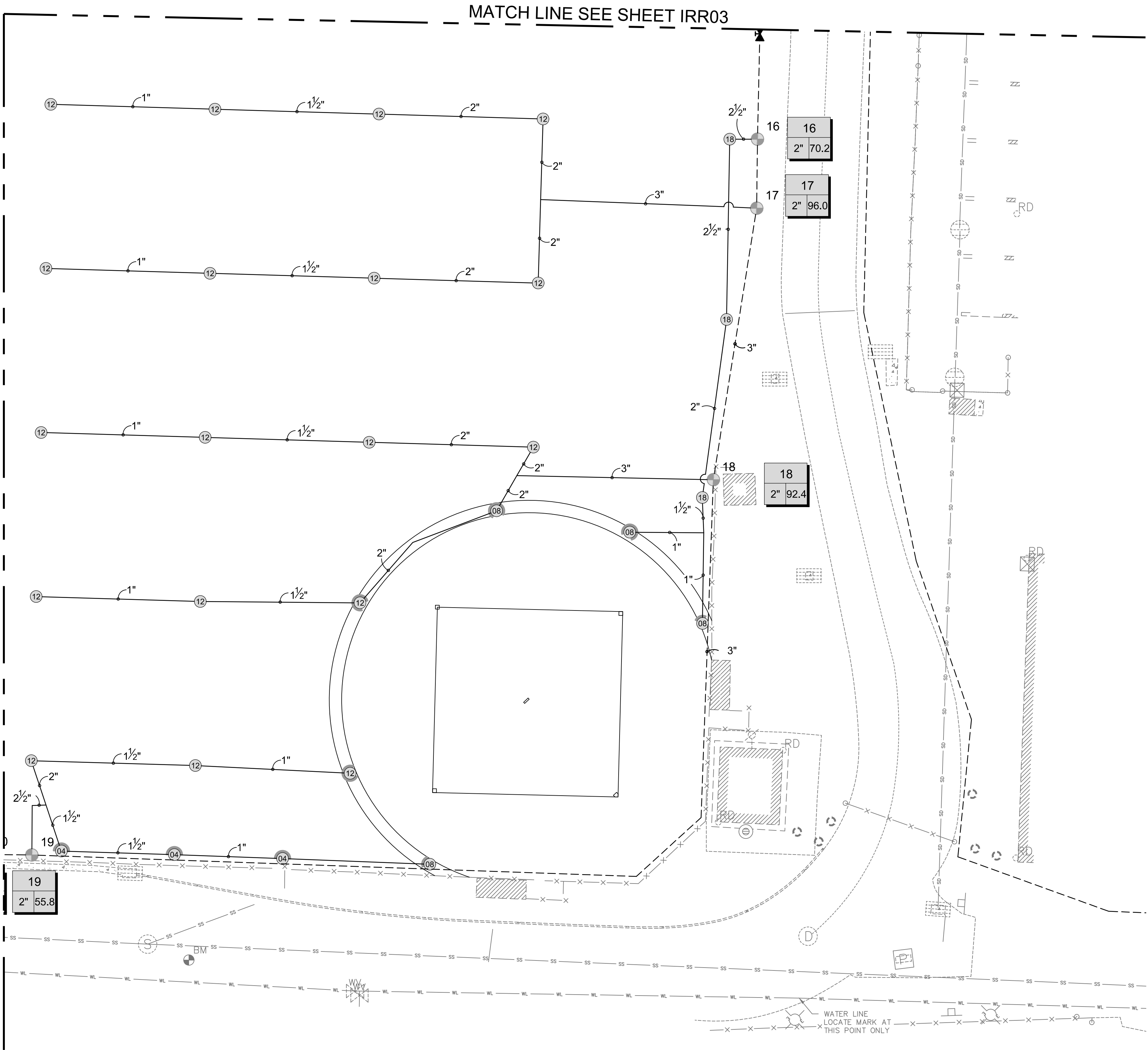


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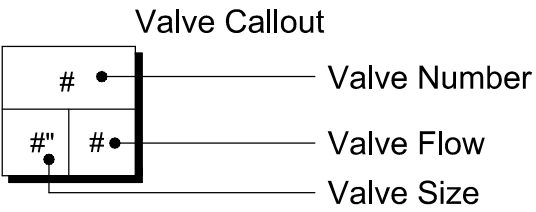
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SHEET 19 OF 29

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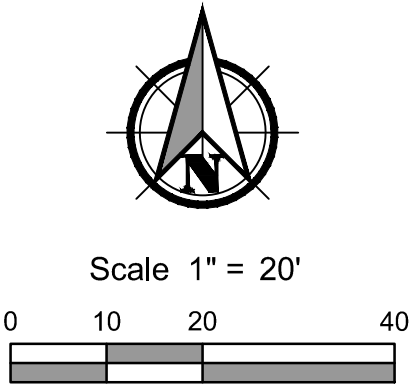
MATCH LINE SEE SHEET IRR05



LEGEND	
SYMBOL	MANUFACTURER/MODEL
04	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
06	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
08	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
10	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
12	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
16	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
18	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
SYMBOL	MANUFACTURER/MODEL
☉	Rain Bird PEB-NP-HAN-PRS-D 2"
▣	Rain Bird 33-DLRC 3/4"
POC	Point of Connection 3" Existing Main Line
⌵	Ball Valve, 2" PVC Schedule 80
————	Irrigation Lateral Line: PVC Schedule 40-NP 1"
————	Irrigation Lateral Line: PVC Schedule 40-NP 1 1/2"
————	Irrigation Lateral Line: PVC Schedule 40-NP 2"
————	Irrigation Lateral Line: PVC Schedule 40-NP 2 1/2"
————	Irrigation Lateral Line: PVC Schedule 40-NP 3"
----	Irrigation Mainline: PVC Schedule 40-NP 2 1/2"
----	Irrigation Mainline: PVC Schedule 40-NP 3"

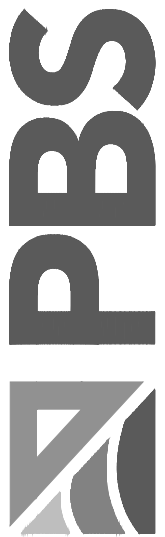


- IRRIGATION CONSTRUCTION NOTES**
- ① LOCATE EXISTING MAINLINE AND TIE INTO SYSTEM.



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IRRIGATION PLAN FOR:
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A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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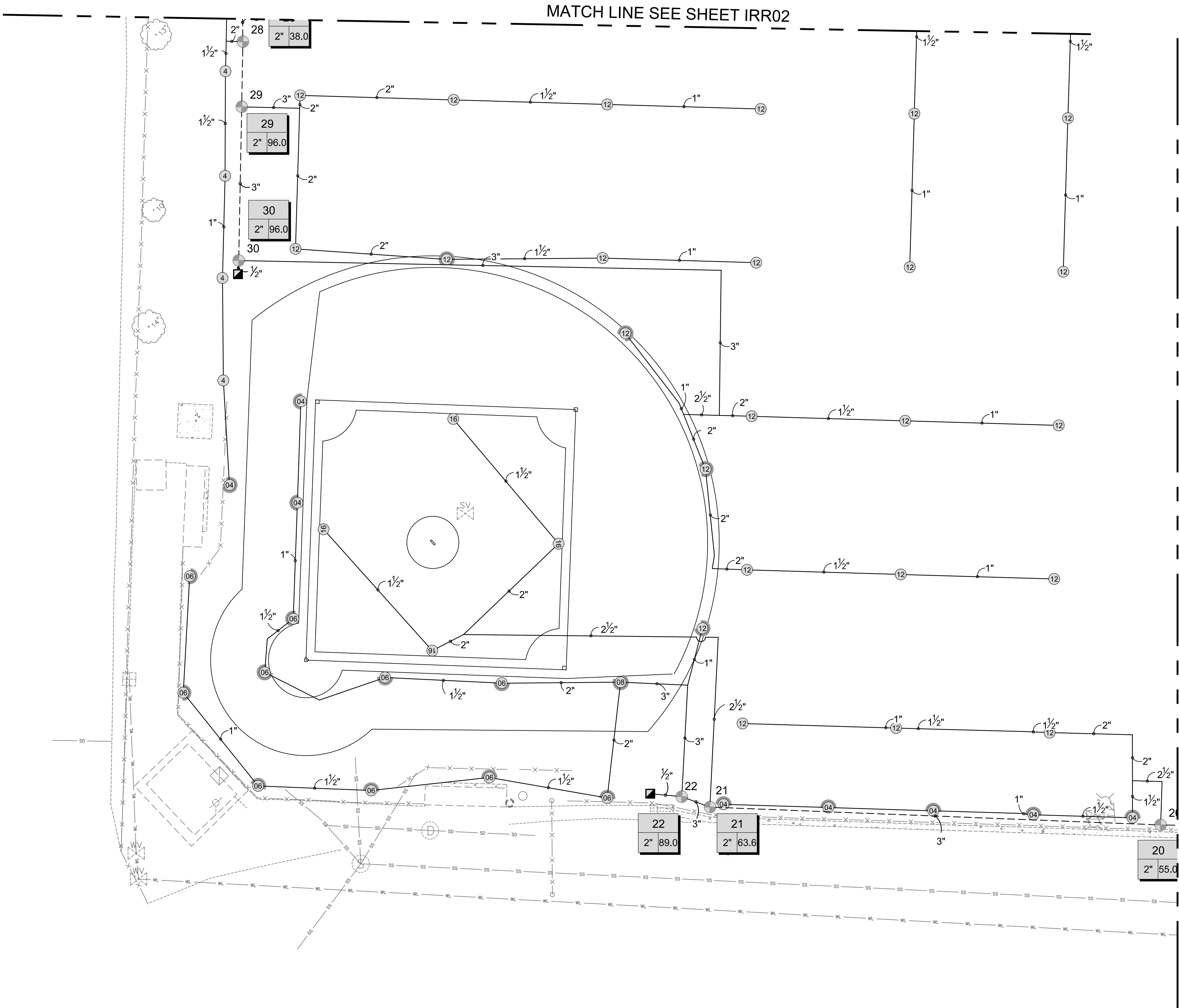
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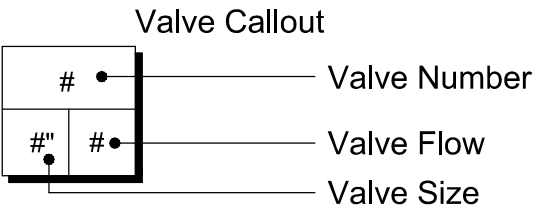
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SHEET 20 OF 29

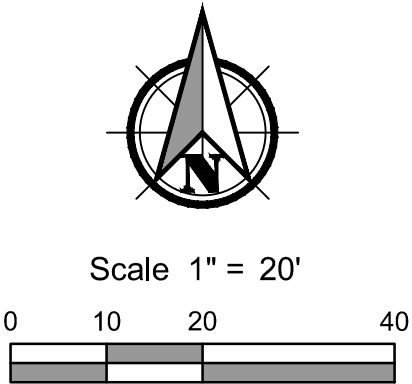
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LEGEND	
SYMBOL	MANUFACTURER/MODEL
04	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
06	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
08	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
10	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
12	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
16	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
18	Rain Bird 8005-NP & Rain Bird 8005 Series Sod Cups
SYMBOL	MANUFACTURER/MODEL
☉	Rain Bird PEB-NP-HAN-PRS-D 2"
■	Rain Bird 33-DLRC 3/4"
POC	Point of Connection 3" Existing Main Line
✂	Ball Valve, 2" PVC Schedule 80
—————	Irrigation Lateral Line: PVC Schedule 40-NP 1"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 1 1/2"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 2"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 2 1/2"
—————	Irrigation Lateral Line: PVC Schedule 40-NP 3"
— — — — —	Irrigation Mainline: PVC Schedule 40-NP 2 1/2"
— — — — —	Irrigation Mainline: PVC Schedule 40-NP 3"

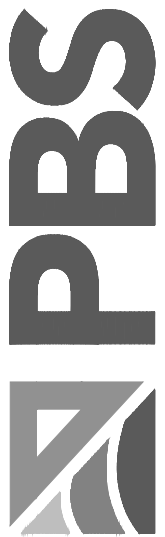


- IRRIGATION CONSTRUCTION NOTES**
- ① LOCATE EXISTING MAINLINE AND TIE INTO SYSTEM.



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IRRIGATION PLAN FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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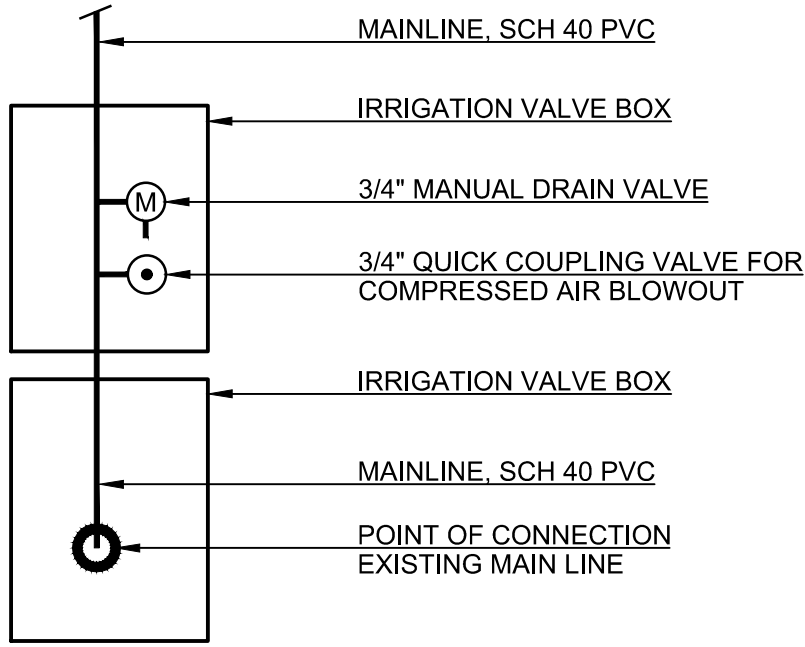
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SHEET ID
IRR05
SHEET 21 OF 29

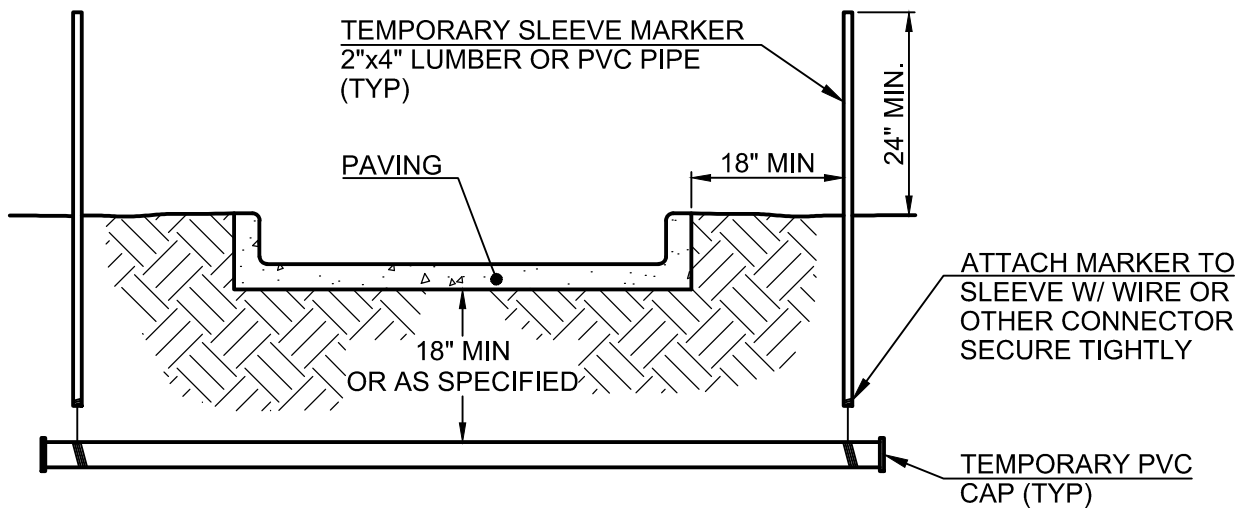
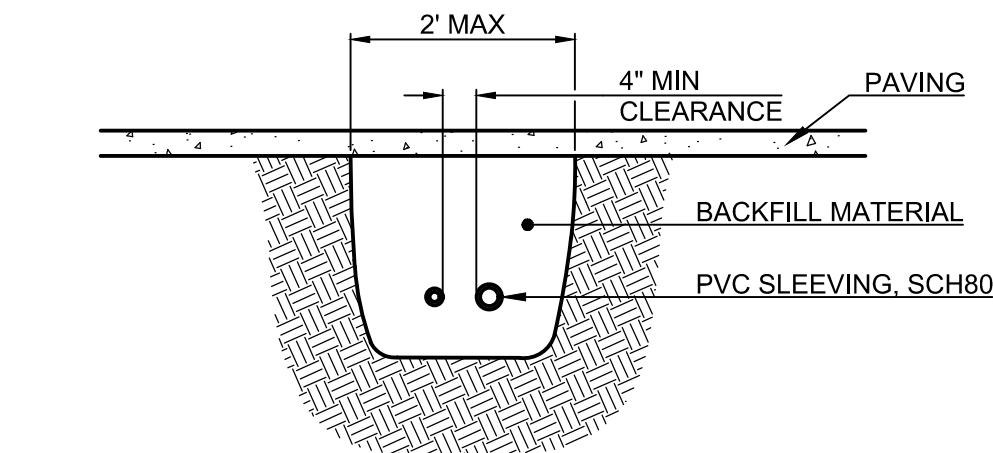
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- NOTES:
1. DOUBLE CHECK VALVE MUST BE ON THE WASHINGTON STATE APPROVED LIST.
 2. INSTALLATION AND COMPONENTS SHALL FOLLOW JURISDICTION'S STANDARD PLANS.

Point of Connection

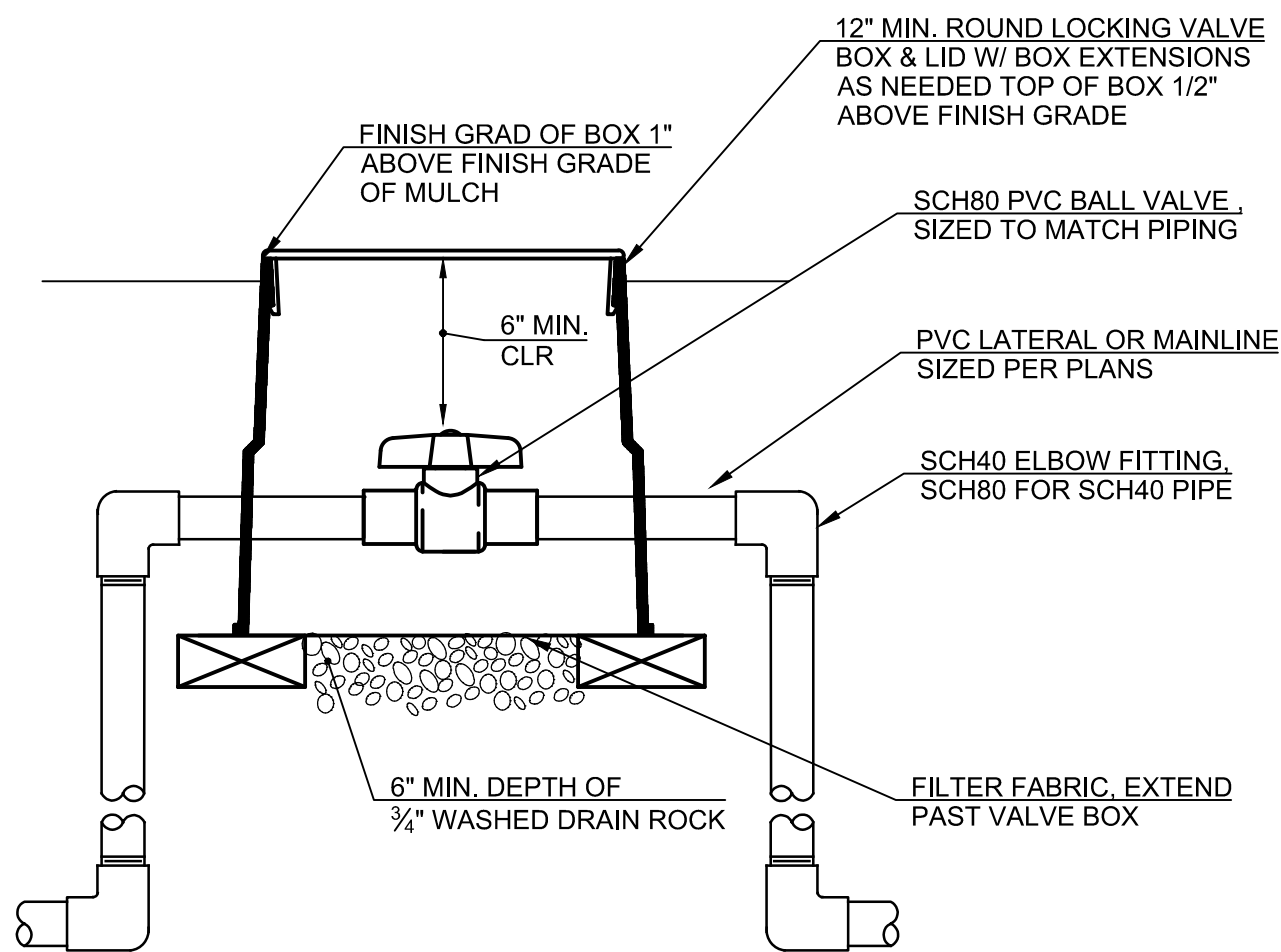
NOT TO SCALE



- NOTES:
1. ALL PVC IRRIGATION SLEEVES TO BE SCHEDULE 40 PVC PIPE.
 2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
 3. MECHANICALLY TAMP TO 95% PROCTOR.

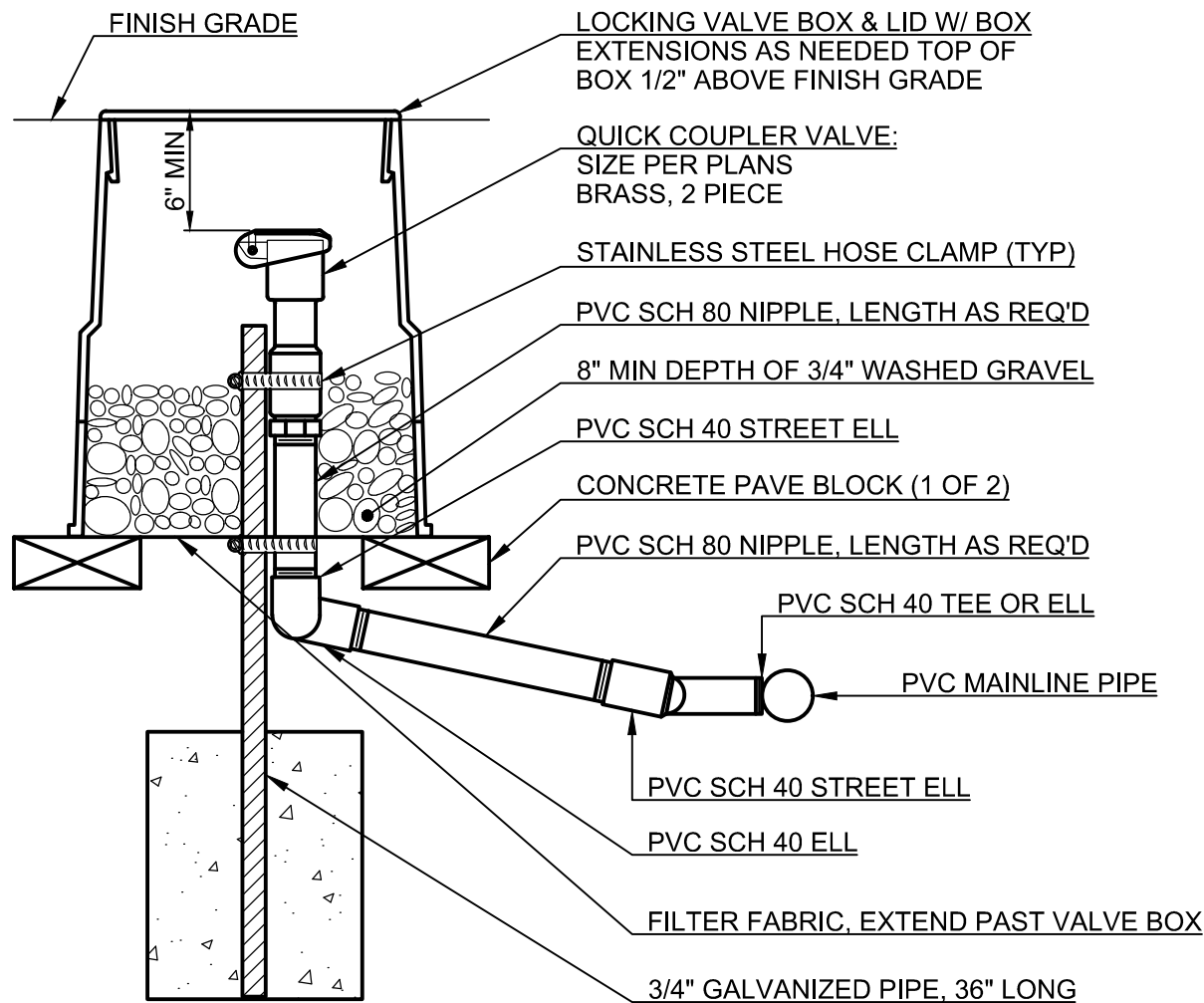
Sleeving

NOT TO SCALE



Ball Valve

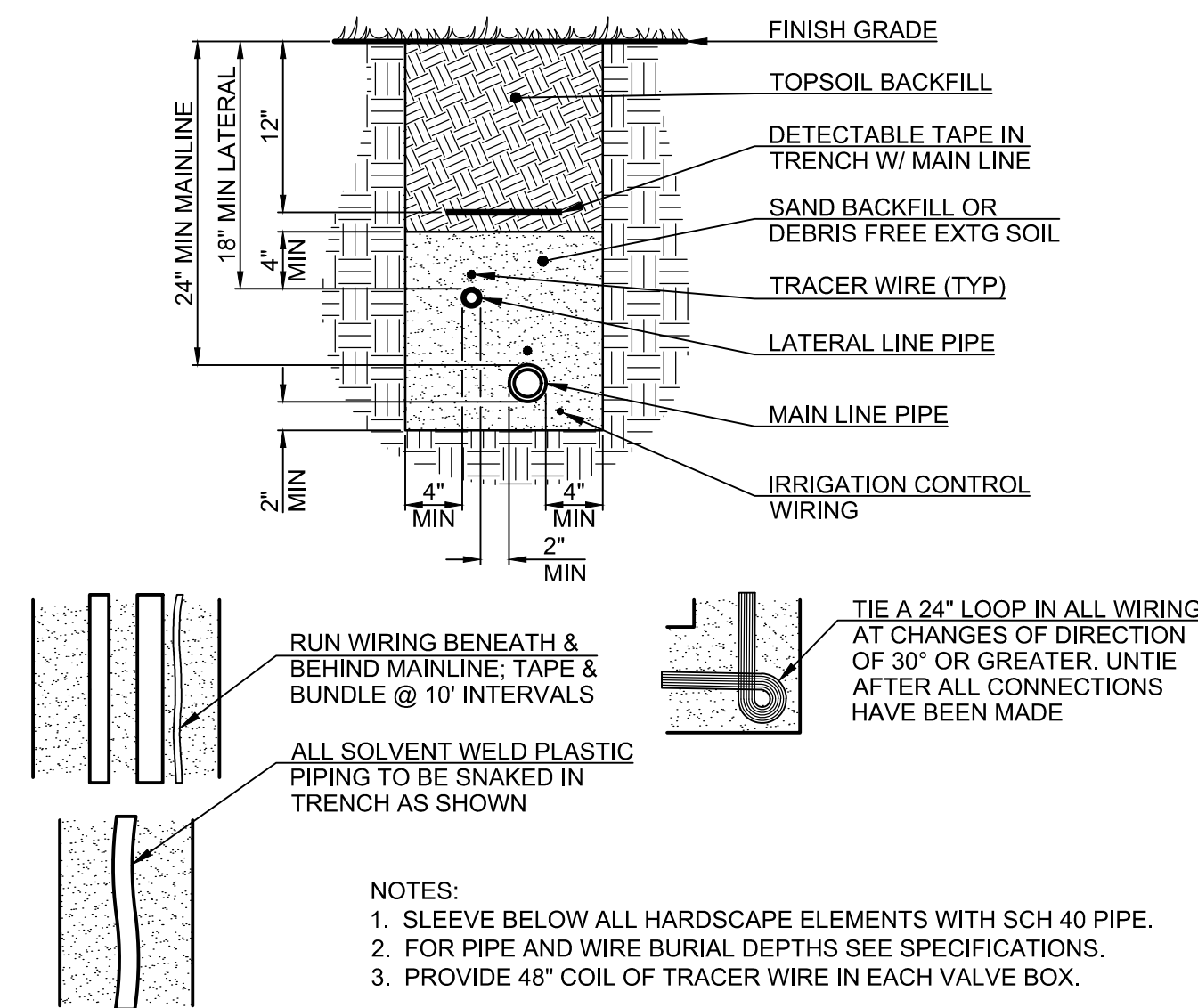
NOT TO SCALE



NOTE: FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE

Quick Coupling Valve

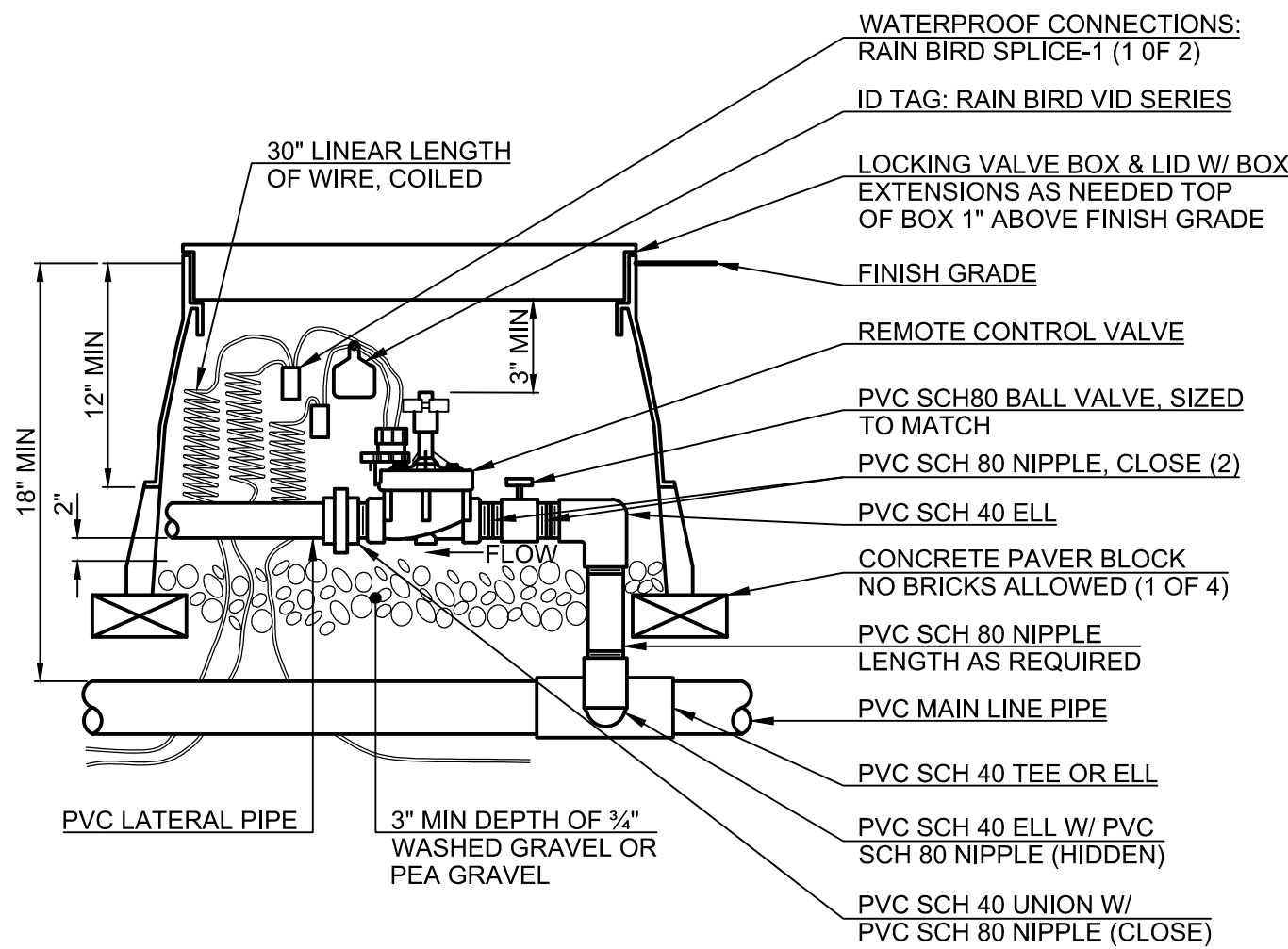
NOT TO SCALE



- NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH 40 PIPE.
 2. FOR PIPE AND WIRE BURIAL DEPTHS SEE SPECIFICATIONS.
 3. PROVIDE 48\"/>

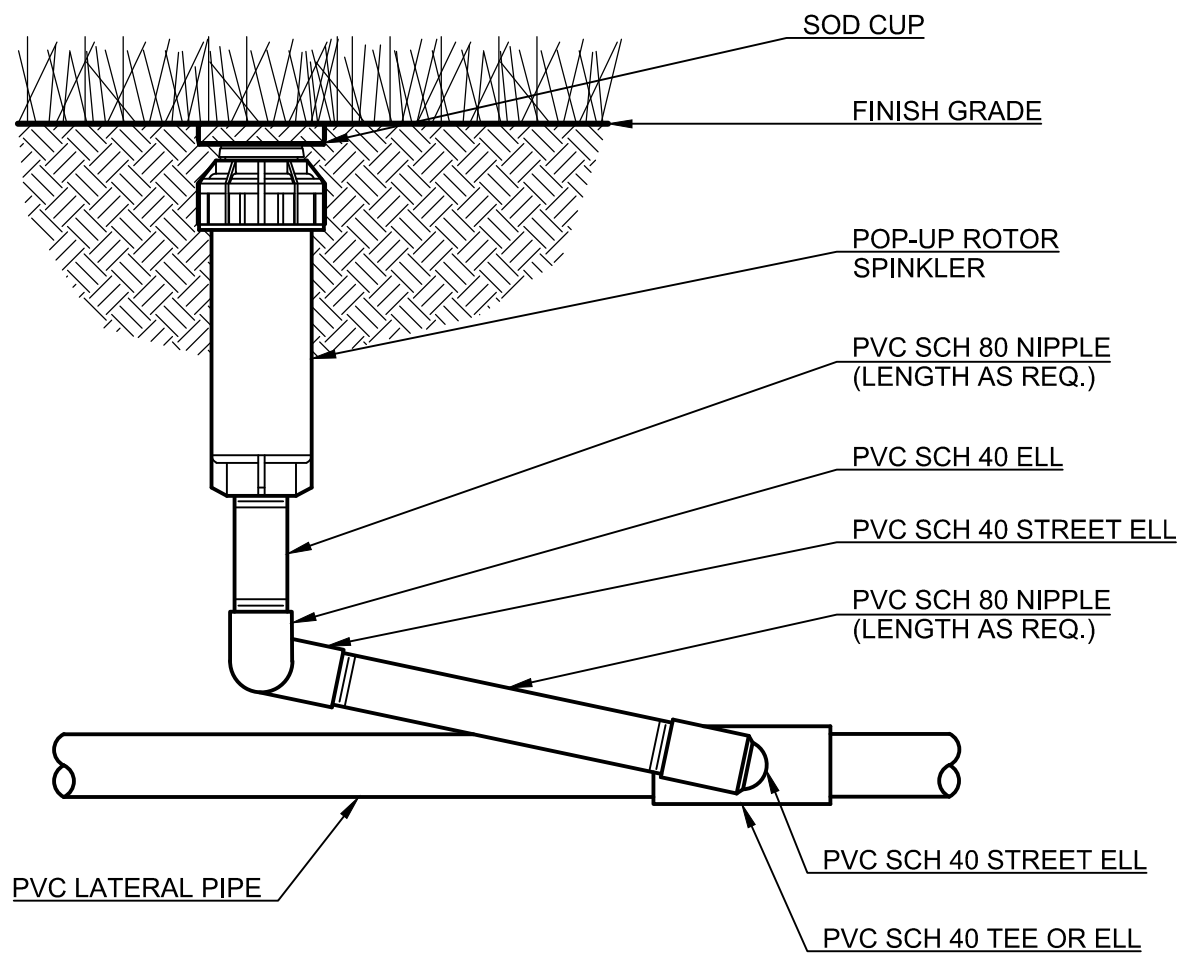
Trench Detail

NOT TO SCALE



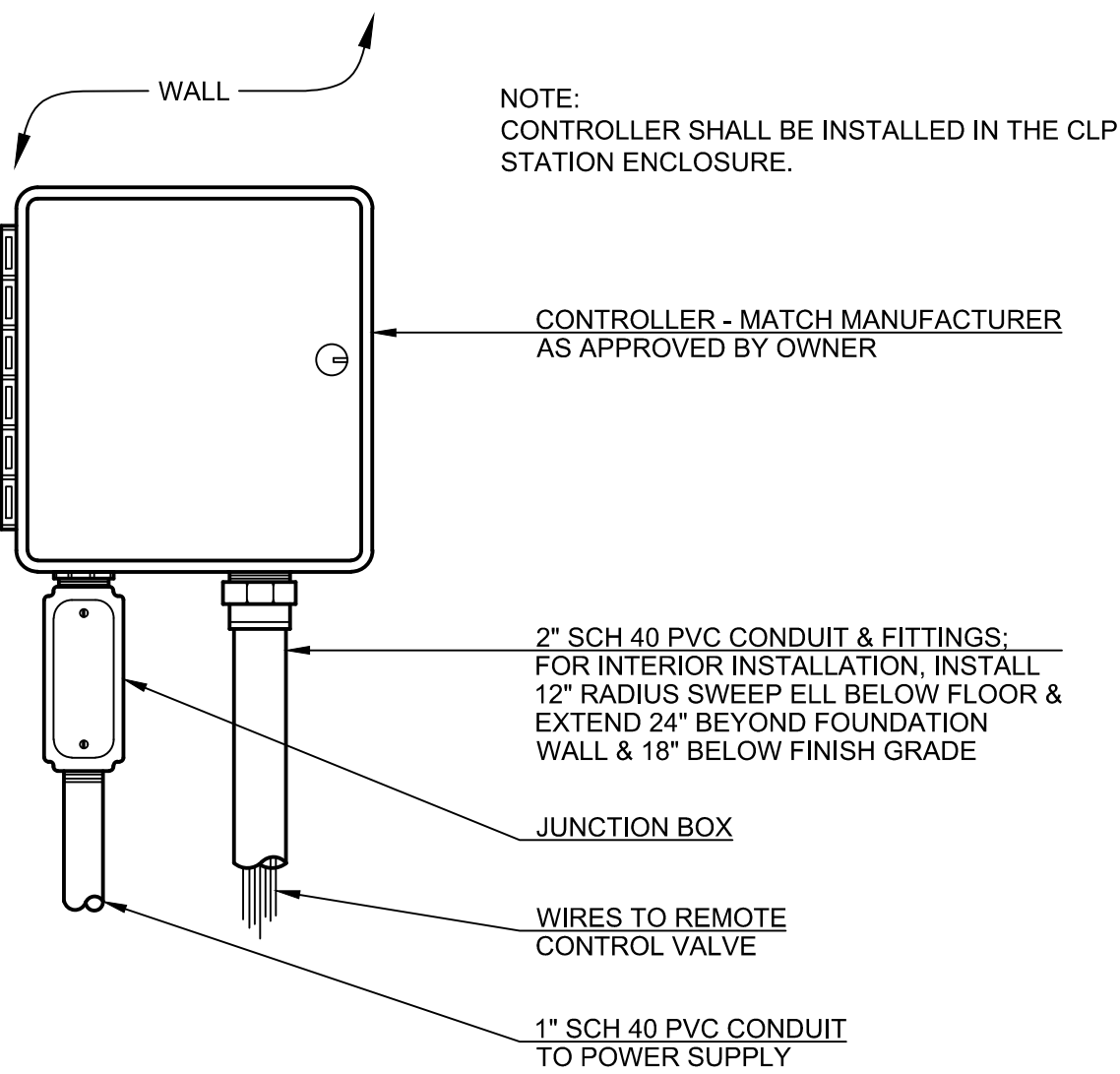
Remote Control Valve

NOT TO SCALE



Rotary Spray Head With Sod Cup

NOT TO SCALE



Controller

NOT TO SCALE

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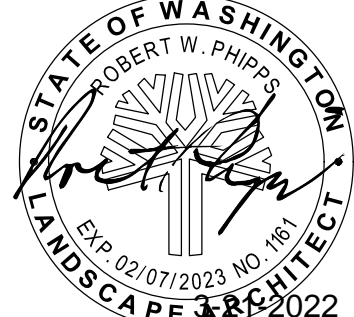


IRRIGATION DETAILS FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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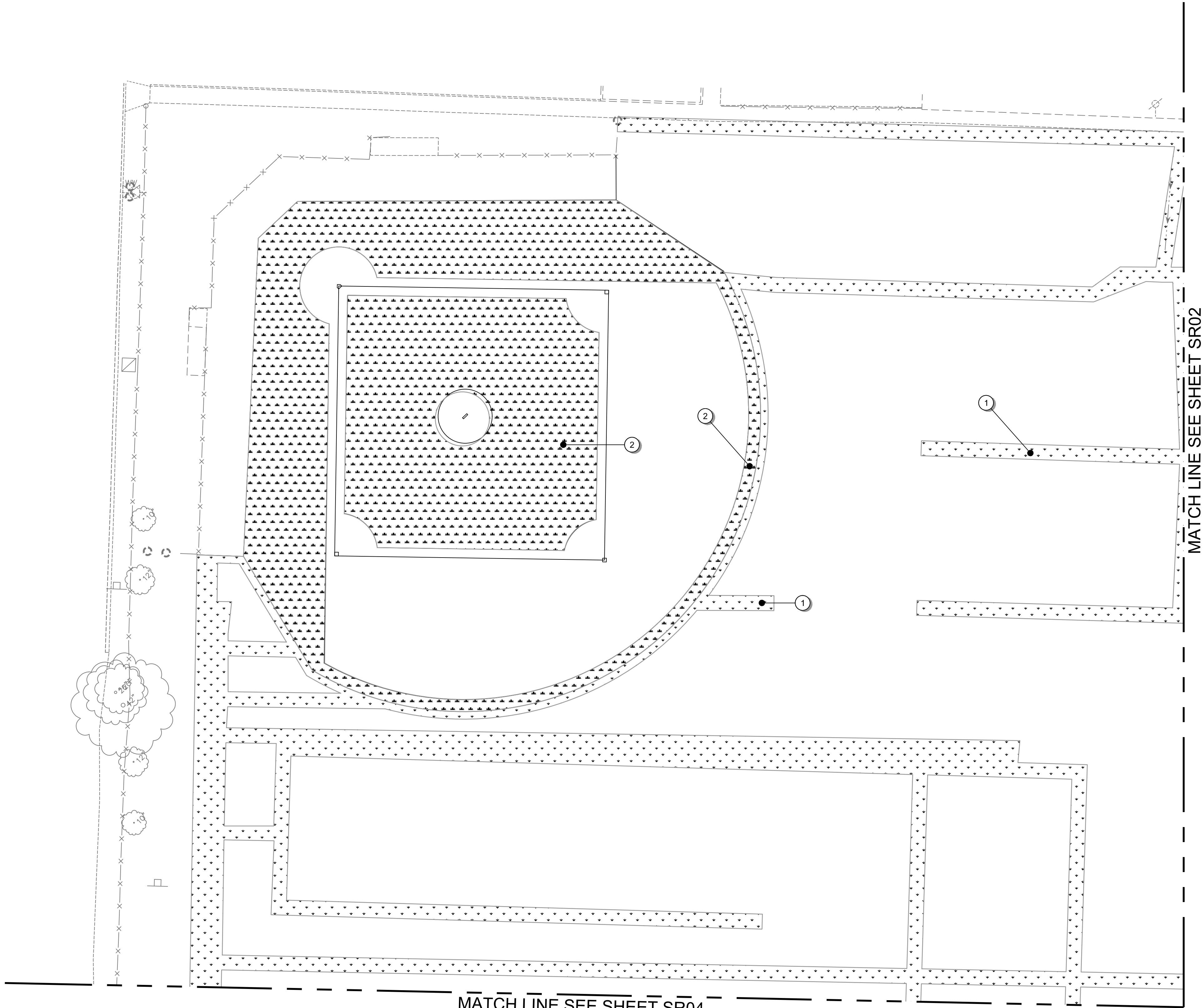
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SHEET ID

IRR06

SHEET 22 OF 29

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MATCH LINE SEE SHEET SR04

MATCH LINE SEE SHEET SR02

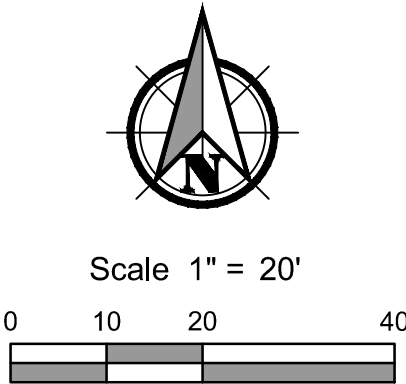
GENERAL NOTES

- ALL DISTURBED AREAS SHALL BE RESTORED TO PRE-EXISTING CONDITIONS. ADDITIONAL SEEDING MAY BE REQUIRED.

CONSTRUCTION NOTES

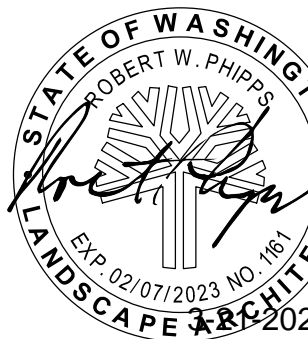
- HYDROSEED AREA USING SPORT FIELD SEEDING MIX AS IDENTIFIED IN THE SEEDING LIST. SEE SHEET SR05 FOR SOIL PREPARATION WORK PER DETAIL "TRENCH OVERSEEDING SECTION" AND "GRASS SOIL CROSS SECTION".
- SOD AREA AS IDENTIFIED IN THE SEEDING LIST. SEE SHEET SR05 FOR SOIL PREPARATION WORK PER DETAIL "SOD SOIL CROSS SECTION".

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RESTORATION PLAN FOR:
KELSO HIGH SCHOOL PRACTICE FIELDS
A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



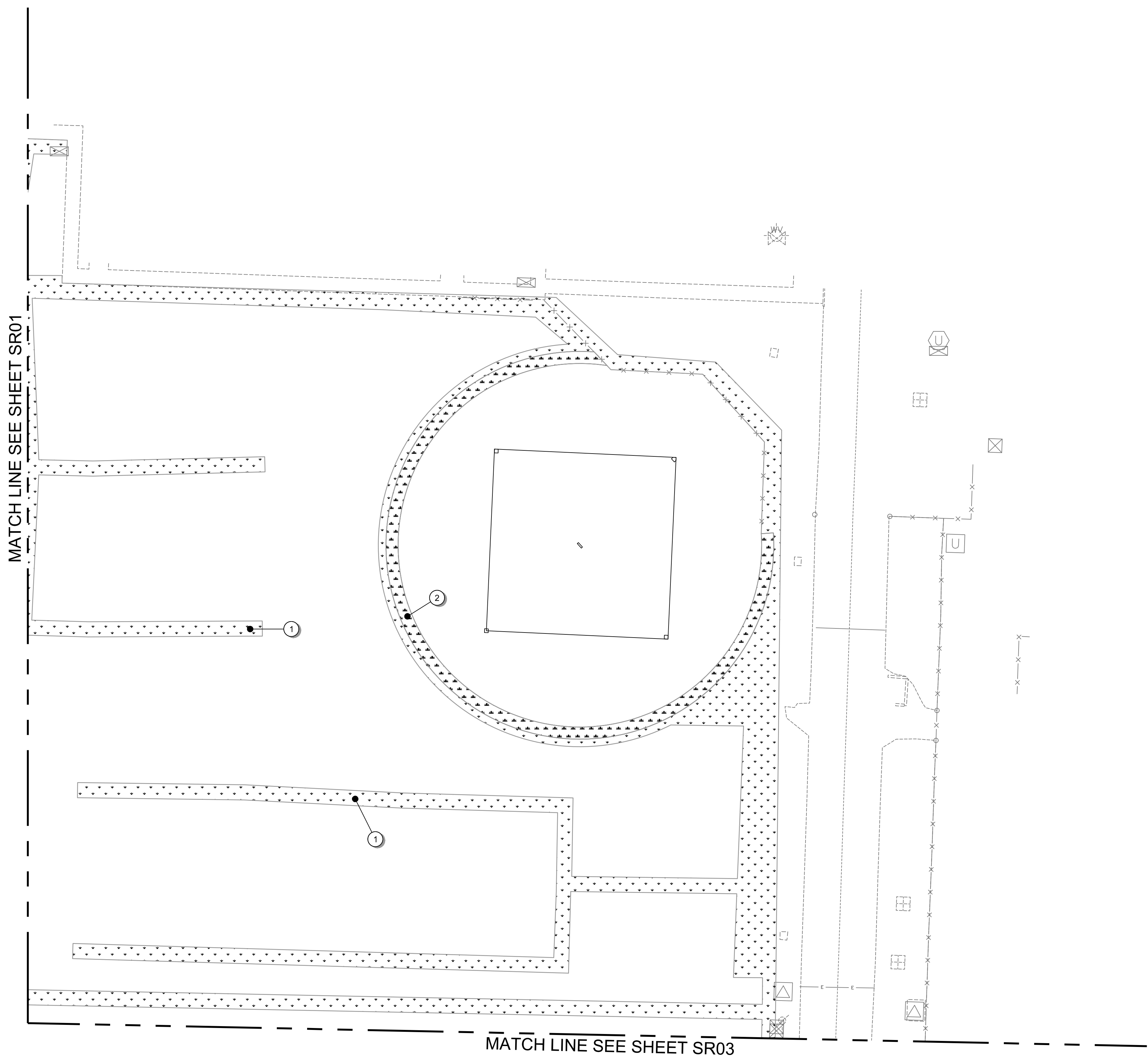
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SR01

SHEET 24 OF 29

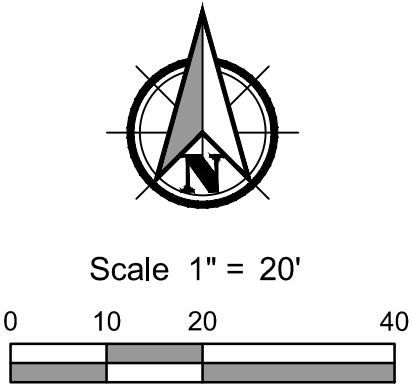


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- GENERAL NOTES**
1. ALL DISTURBED AREAS SHALL BE RESTORED TO PRE-EXISTING CONDITIONS. ADDITIONAL SEEDING MAY BE REQUIRED.
- CONSTRUCTION NOTES**
- ① HYDROSEED AREA USING SPORT FIELD SEEDING MIX AS IDENTIFIED IN THE SEEDING LIST. SEE SHEET SR05 FOR SOIL PREPARATION WORK PER DETAIL "TRENCH OVERSEEDING SECTION" AND "GRASS SOIL CROSS SECTION".
- ② SOD AREA AS IDENTIFIED IN THE SEEDING LIST. SEE SHEET SR05 FOR SOIL PREPARATION WORK PER DETAIL "SOD SOIL CROSS SECTION".

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Restoration Plan for:

KELSO HIGH SCHOOL PRACTICE FIELDS

A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON

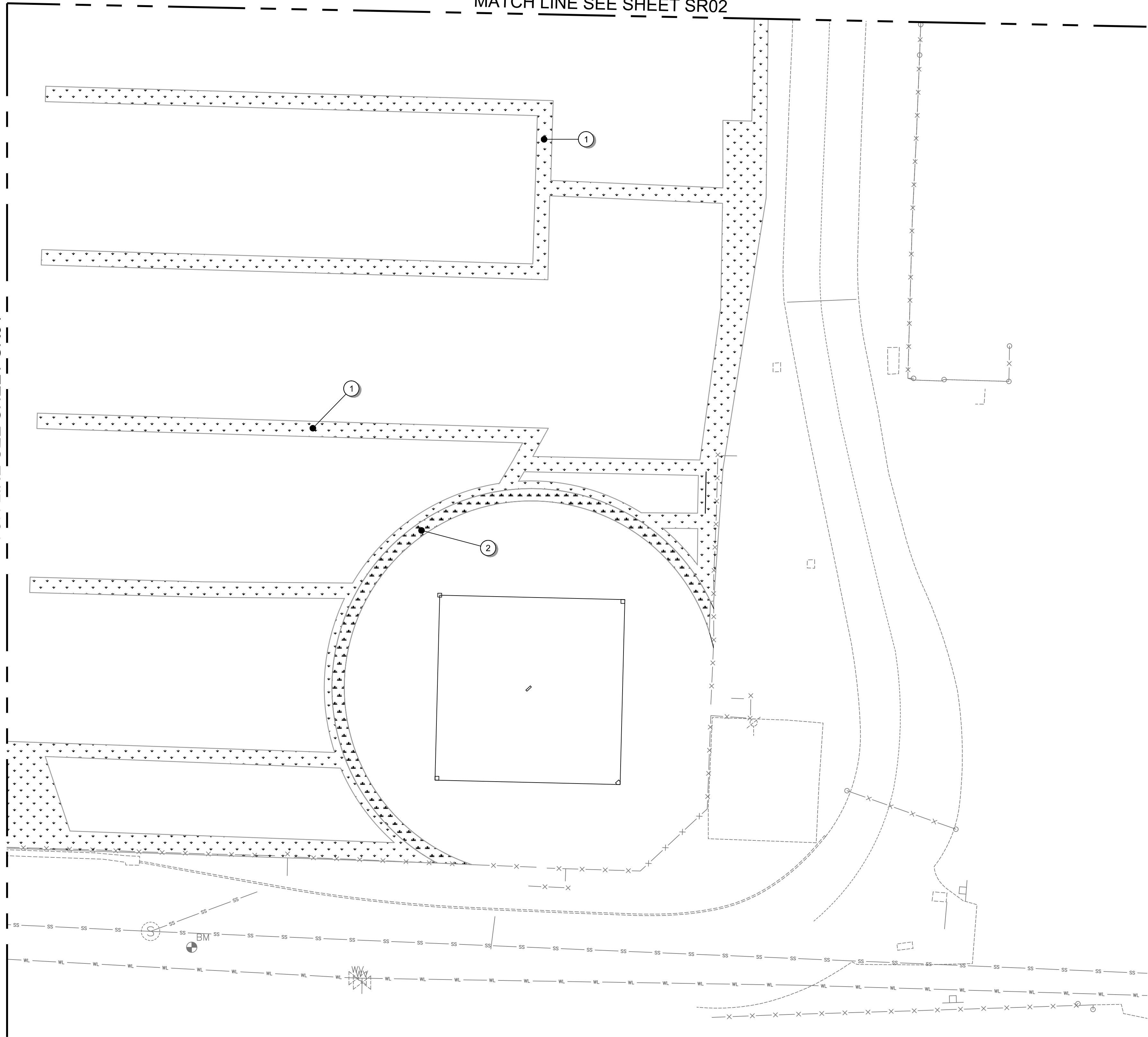
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MATCH LINE SEE SHEET SR04

MATCH LINE SEE SHEET SR02

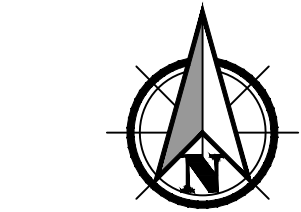


GENERAL NOTES

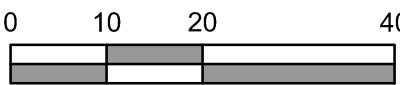
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CONSTRUCTION NOTES

- HYDROSEED AREA USING SPORT FIELD SEEDING MIX AS IDENTIFIED IN THE SEEDING LIST. SEE SHEET SR05 FOR SOIL PREPARATION WORK PER DETAIL "TRENCH OVERSEEDING SECTION" AND "GRASS SOIL CROSS SECTION".
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Scale 1" = 20'



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A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON



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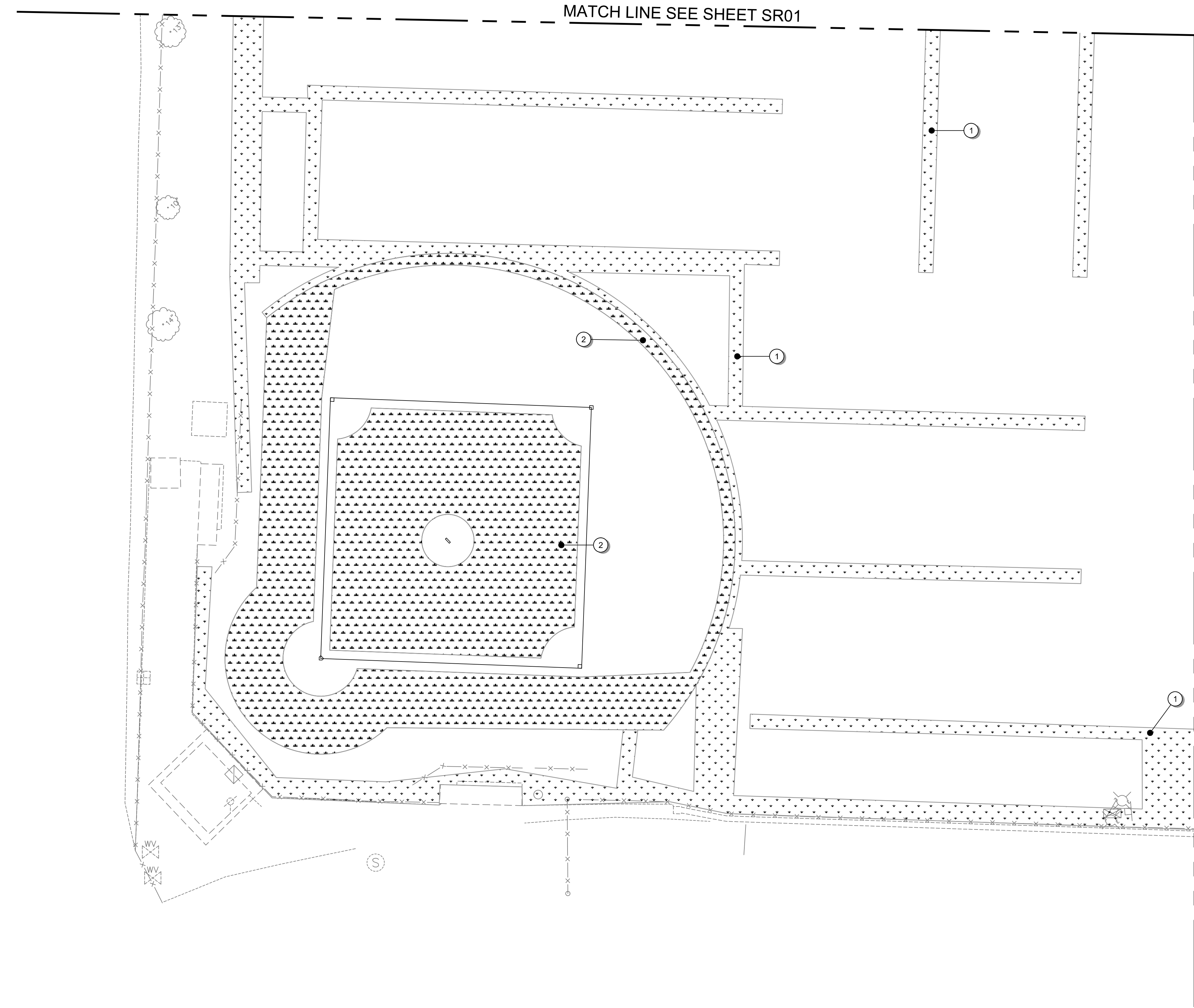
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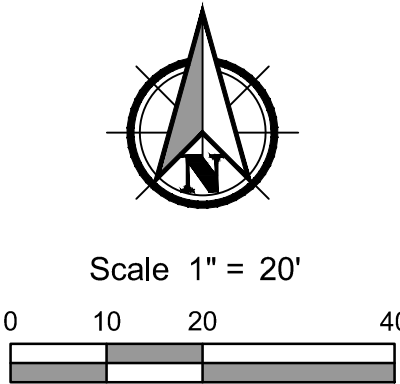
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- GENERAL NOTES**
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- CONSTRUCTION NOTES**
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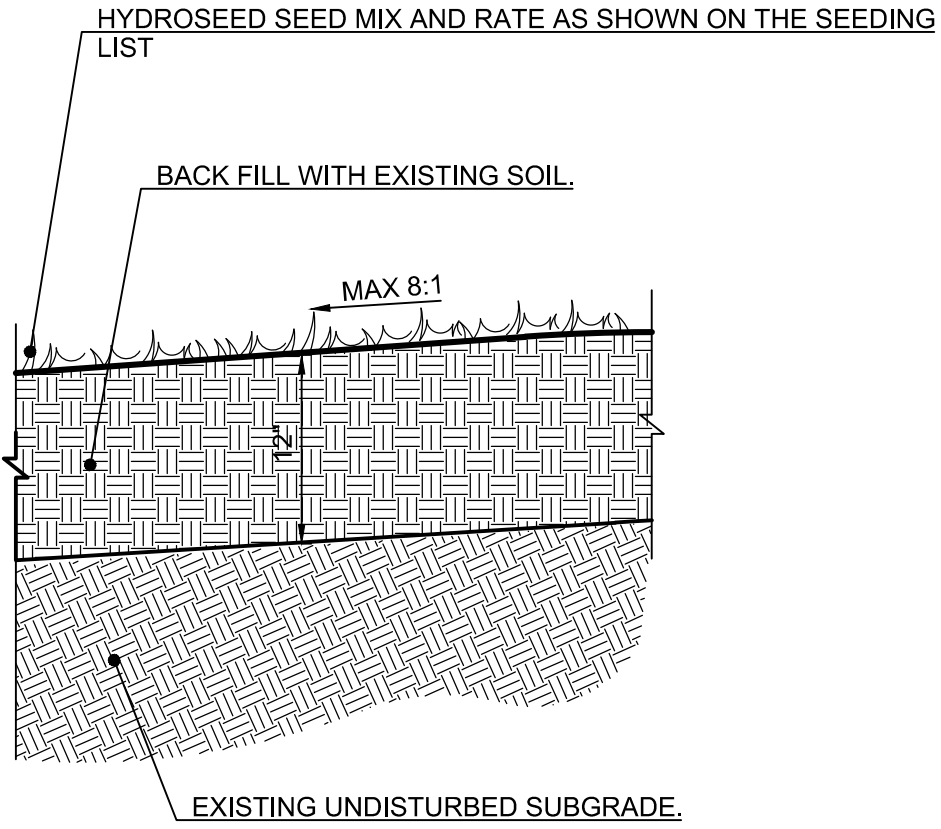
KELSO HIGH SCHOOL PRACTICE FIELDS

A SITE LOCATED IN THE CITY OF KELSO, WASHINGTON

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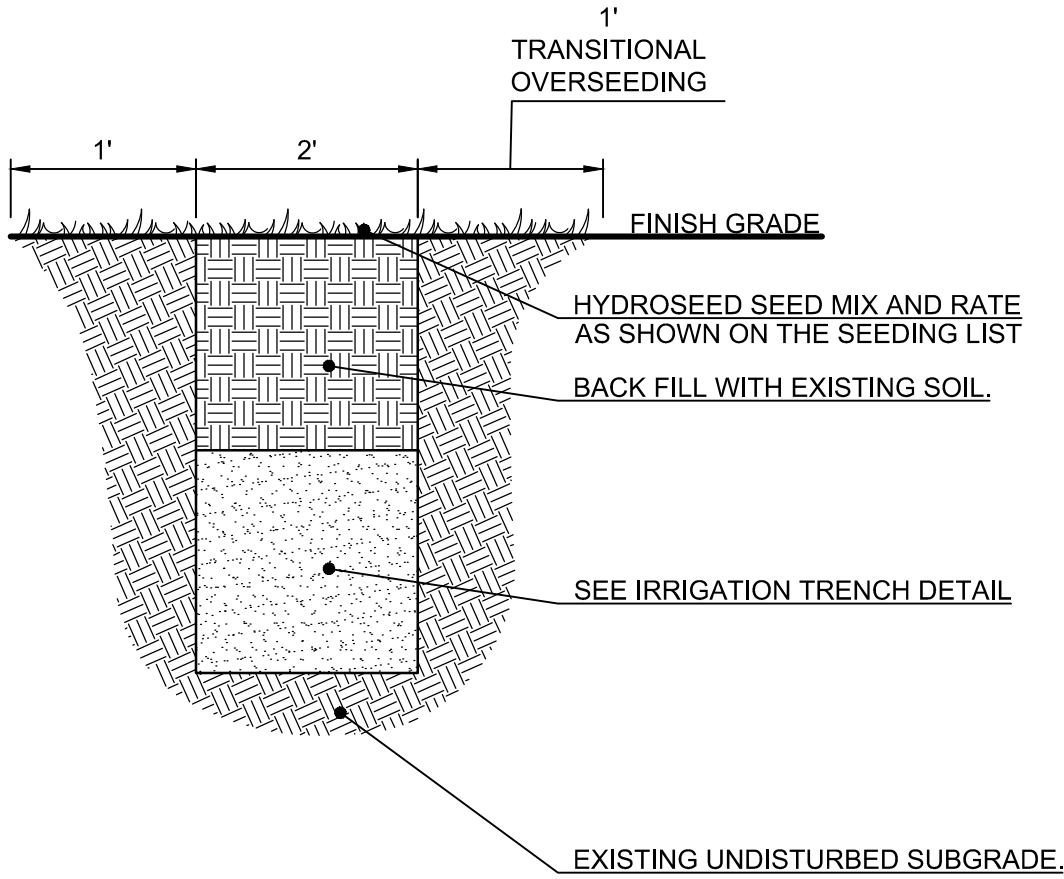
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NOTE: PRIOR TO COMMENCEMENT OF WORK CONTRACTOR SHALL PROVIDE A SOIL ANALYSIS AND A WRITTEN REPORT BY A QUALIFIED SOIL-TESTING LABORATORY STATING PERCENTAGES OF ORGANIC MATTER; GRADATION OF SAND, SILT, AND CLAY CONTENT; CATION EXCHANGE CAPACITY; AND pH OF THE SOIL TO THE LANDSCAPE ARCHITECT.

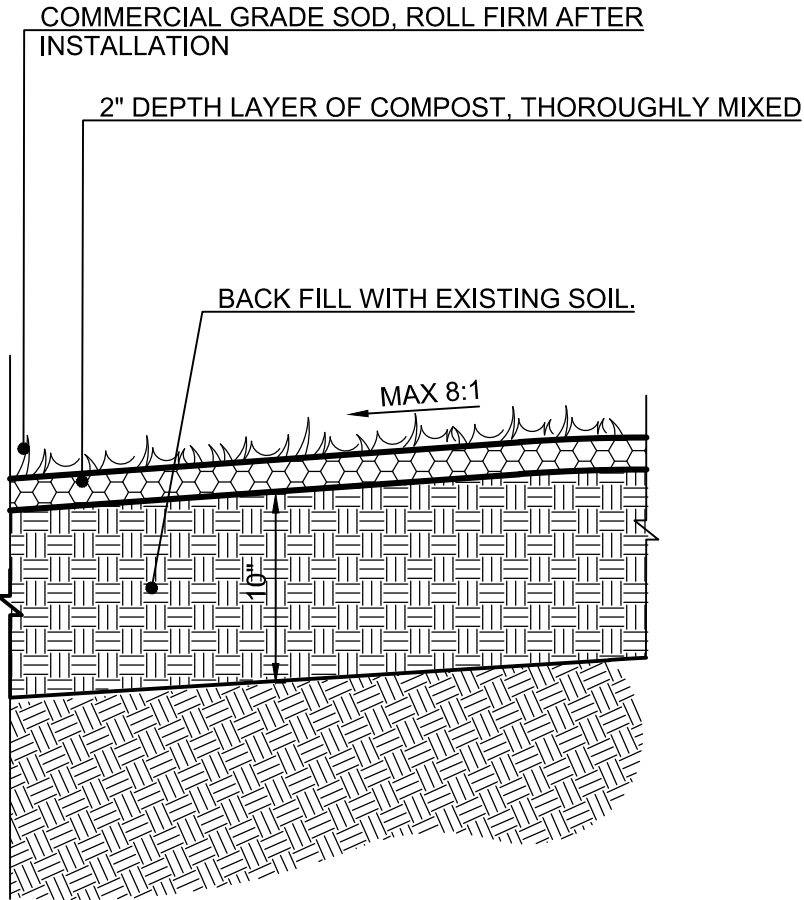
Grass Soil Cross Section

NOT TO SCALE



Trench Overseeding Section

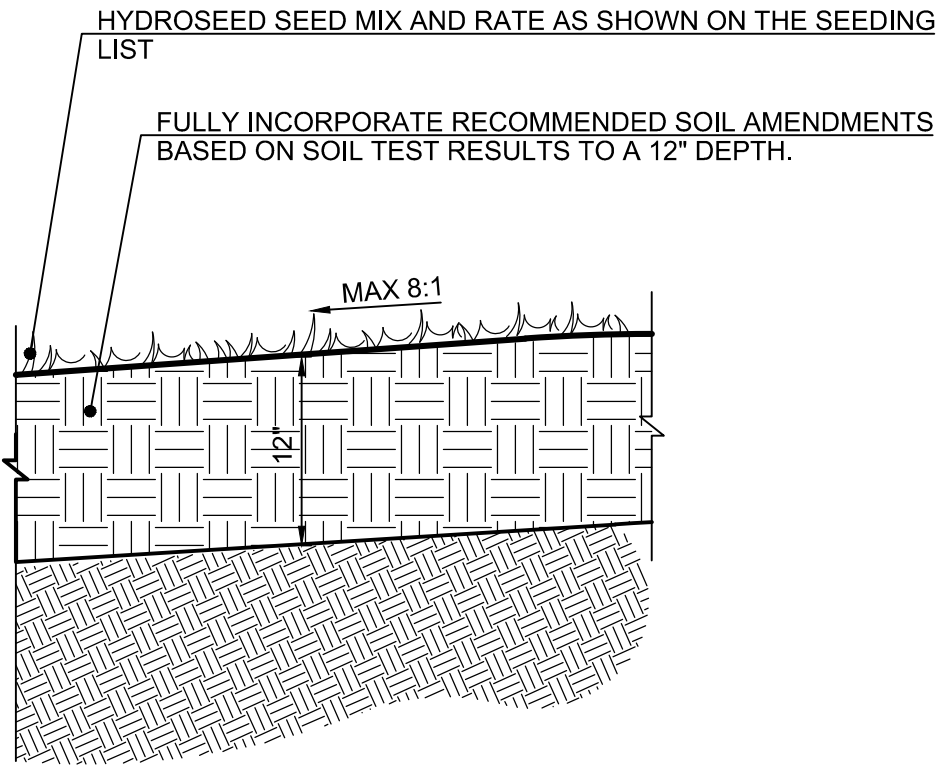
NOT TO SCALE



NOTE: PRIOR TO COMMENCEMENT OF WORK CONTRACTOR SHALL PROVIDE A SOIL ANALYSIS AND A WRITTEN REPORT BY A QUALIFIED SOIL-TESTING LABORATORY STATING PERCENTAGES OF ORGANIC MATTER; GRADATION OF SAND, SILT, AND CLAY CONTENT; CATION EXCHANGE CAPACITY; AND pH OF THE SOIL TO THE LANDSCAPE ARCHITECT.

Sod Soil Cross Section

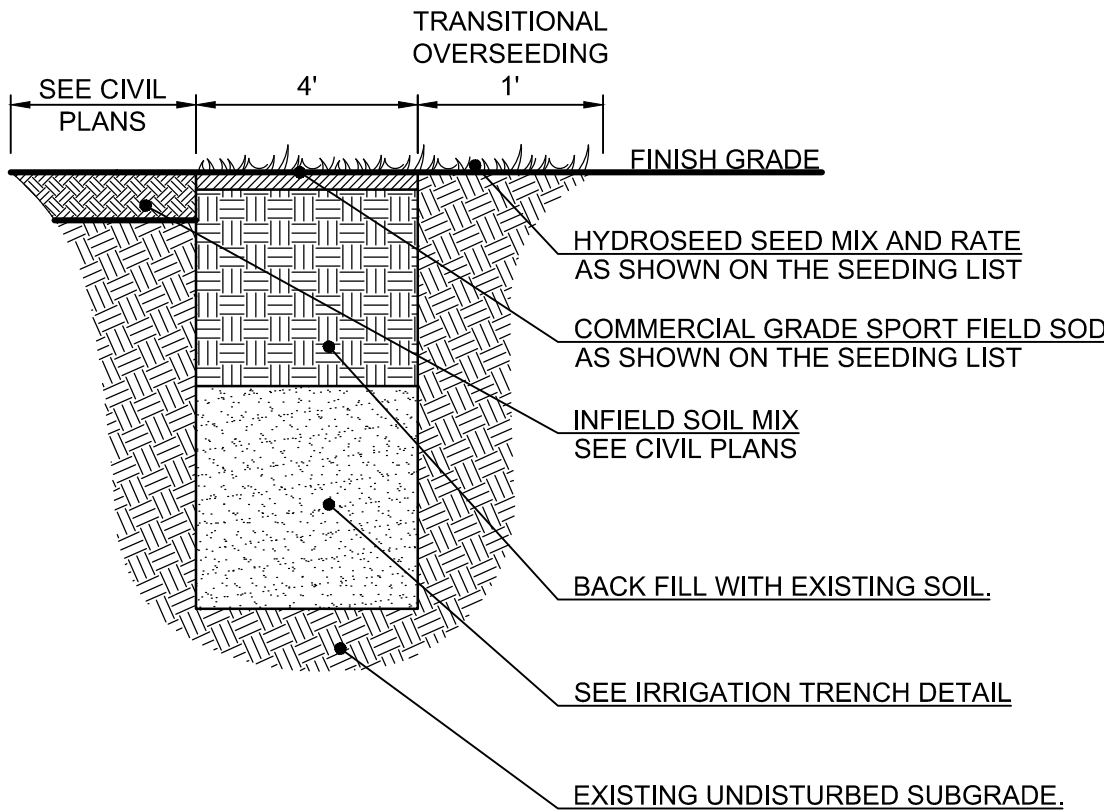
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Contingency - Soil Cross Section

NOT TO SCALE



Sod to Overseeding

NOT TO SCALE

		SEEDING LIST				
SYM	SPECIES MIX	PLS (by acre)	DESIRED %	Comments	QTY	
SPORT FIELD SEEDING						
	<i>Lolium perenne</i> var <i>Dasher 3</i> Dasher 3 Perennial Ryegrass	105.00	30%	SEED SPECIES COMPOSITION AS FROM SUNMARK SEEDS OR APPROVED EQUAL. HYDROMULCHING APPLICATIONS SHALL BE APPLIED WITH FLEXTERRA AS FROM PROFILE PRODUCTS OR APPROVED EQUAL.	40,000 SF (.91 acres)	
	<i>Festuca arundinacea</i> var <i>crossfire 3</i> Crossfire 3 Turf Type Tall Fescue	91.00	26%			
	<i>Festuca rubra</i> spp. <i>fallax</i> var <i>windward</i> Windward Chewings Fescue	77.00	22%			
	<i>Poa pratense</i> var <i>armada</i> Armada Kentucky Bluegrass	77.00	22%			
	Commercial Grade Sport Field Sod	100%	100%	SOD UTILIZING LOCALLY GROWN GRASS SPECIES WITH AT LEAST THREE VARIETIES OF PERENNIAL RYE, KENTUCKY BLUEGRASS OR FESCUE.	29,400 SF (0.67 acres)	

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RESTORATION DETAILS FOR:

KELSO HIGH SCHOOL PRACTICE FIELDS
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GRASS AREAS

PART 1 - GENERAL

- 1.1

SUMMARY OF WORK: Topsoil testing; soil preparation; establishment of fine finished grading; installation of grass areas; submittal requirements; maintenance and warranties.
- 1.2

SUBMITTALS

A

Topsoil:

1

For soil type and source (native), furnish soil analysis and a written report by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; sodium absorption ratio; deleterious material; pH; and mineral and plant-nutrient content of the soil.

2

Submit test results to Landscape Architect for approval prior to installation seeding/sodding of grass areas.

B

Compost:

1

Provide source and testing analysis in accordance with U.S. Composting Council Testing Methods for the Examination of Compost and Composting (TMECC) stating sieve size, pH, physical contaminants, organic matter, soluble salt content, maturity and stability.

2

Submit test results to Landscape Architect for approval prior to installation of plant material and/or seeding/sodding of lawn areas.

C

Seed Mixes: Provide source and grass species in accordance with species and percentages indicated in the Plans, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed.

1. Provide testing results from the Washington State Department of Agriculture (WSDA) showing:

A

Common and botanical name

B

Lot number

C

Net weight

D

Pounds of Pure Live Seed (PLS) in the mix

The results shall be within six months prior to date of application. Adjustments of the PLS mix shall be provided by the Landscape Architect to compensate any species lacking the minimum percent of germination and pure seed.

D

Sod: Provide source and grass species composition in accordance with the Plans.

1.3

DELIVERY, STORAGE AND HANDLING

A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws if applicable.

1.4

PROJECT CONDITIONS

A. Utilities:

1

Call for utility locate a minimum of 48 hours, but no more than 10 days, in advance of work. Perform work in a manner that will avoid damage, hand excavate as needed. Repair all damage to the satisfaction of the utility owner at no cost to owner.

2

Do not interrupt services or utilities to facilities occupied by Owner or others unless permitted or only after arranging to provide temporary services or utilities as required.

B

Seeding Restrictions:

1

Hydroseed operations shall be completed once irrigation if fully operational.

2

Weather Limitations: Proceed with hydroseeding only when existing and forecasted weather conditions permit seeding to be performed when beneficial and optimum results may be obtained. Seeding will not occur during freezing temperatures or frozen ground.

3

Condition: When conditions detrimental to seed establishment are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify the Landscape Architect before seeding. All existing or recent areas disturbed by construction operations shall be restored to pre-existing condition.

1.7

WARRANTY

A. Duration: All seeding and related workmanship of installation beginning after written acceptance or work, for one year or one full growing season, whichever is longer.

B. Replacement: Installer agrees to repair or replace seeded and accessories that fail in materials, workmanship, or growth within specified warranty period.

C. Corrections:

1

Correct deficiencies in soil or drainage conditions and watering cycles when identified to contribute to establishment failure.

2

Replacement of seeding areas not providing a coverage of 70% minimum after a 6 month period shall be reseeded for areas identified.

3

Provide extended warranty for period equal to original warranty period, for replaced seeded areas.

PART 2 - PRODUCTS

2.1

SEED: State-certified seed of grass species as follows, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed

2.3

SOD: Certified, complying with "Specifications for Turfgrass Sod Materials" in TPI's "Guideline Specifications to Turfgrass Sodding." Furnish viable and local sod of uniform density, color, and texture, strongly rooted, and capable of vigorous growth and development when planted.

2.4

FERTILIZERS AND SOIL AMENDMENTS: For fertilizers, comply with applicable state laws; deliver to job site in unopened containers each bearing manufacturer's label of content.

A

Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 1-4 percent nitrogen and 10-20 percent phosphoric acid depending on soil test results.

B

Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.

C

Organic Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen. Oragnic 10-10-5 or approved equal.

D

Lime: Provide lime in form of ground dolomitic limestone.

E

Perlite: Horticultural perlite, soil amendment grade.

F

Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through No. 50 sieve.

G

Sand: Clean, washed, natural or manufactured, and free of toxic materials.

H

Diatomaceous Earth: Calcined, 90 percent silica, with approximately 140 percent water absorption capacity by weight.

I

Zeolites: Mineral clinoptilolite with at least 60 percent water absorption by weight.

2.5

TEXTURAL SOIL AMENDMENT

A. Compost: Well-composted, stable, and weed-free organic matter.

1

Feedstock Source: Agricultural, food, or industrial residuals; biosolids; yard trimmings; or source-separated or compostable mixed solid waste.

2

100 percent passing through 1-inch sieve;

3

pH range of 6 to 8.5; moisture content minimum 35 to 55 percent by weight;

4

Organic Matter: Minimum 40 percent of dry weight.

5

Soluble salt content less than 4.0 mmhos/cm;

6

Stability shall be 7-mg CO2-C/g OM/day or below.

7

Contaminants not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings;

2.6

TOPSOIL

A. Topsoil Requirements: Topsoil derived from surface soil found at a depth in its natural state or less than 18 inches. Topsoil shall have a pH range of 6 to 7, a minimum of 10% organic material content; 20% - 70% sand content, 20% - 50% silt content, and 5% - 20% clay content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth.

2.10

WEED CONTROL FABRIC: Woven non-biodegradable fabric with supplied manufacturer's staples.

PART 3 - EXECUTION

3.1

GENERAL

A

Scheduling:

1

Coordinate work schedule with Owner's Project Representative where cooperation with other contracts is required.

2

Examine areas to receive landscape material for compliance with requirements and conditions affecting installation and performance. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.

3

Repair and restore existing landscape as required.

3.2

FINISH GRADES

A

Establish slopes in accordance with Civil Grading Plan.

1

Fine grade to uniform slopes, free of low spots or irregularities.

2

Slope grades away from all building structures.

3

Slopes grades to all area drains and catch basins as per Civil Grading Plans. Allow no ponding of water.

4

Verify with Civil Engineer that finish grades meet grading plan prior to planting.

B

Grade planting areas to accommodate the required depths of compost and bark mulch.

3.3

PLANTING AREA WEED CONTROL

A

All seeded areas shall be prepared so that they are weed and debris free at the time of seeding and until completion of the project. At no time during the life of the Contract shall the Contractor allow weeds and unwanted vegetation to reach seed stage. All applications of post-emergent herbicides shall be made while green and growing tissue is present. Should unwanted vegetation reach the seed stage, in violation of these Specifications, the Contractor shall physically remove and bag the seed heads. All physically removed vegetation and seed heads shall be disposed of off site at no cost to the Contracting Agency.

3.4

SOIL PREPARATION

A

General: Loosen or cultivate subgrade of lawn areas to a minimum depth of 12 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.

B

Soil Amendment: Spread soil amendment as recommended and fully incorporate to a 12 inch depth. Allow amended topsoil to settle. Apply additional amendment to produce final grades.

C

Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades. Before planting, obtain Landscape Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading. Where landscape areas are excavated to finish grades as shown in the Civil Grading Plans, it may not be necessary to place topsoil if finish grade meets topsoil specification requirements.

3.5

HYDRO SEEDING

A

Hydro Seeding: Mix specified seed, fertilizer, and HECP mulch in water, using equipment specifically designed for hydro seed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.

1

Apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than 1500-lb/acre dry weight, and seed component is deposited at not less than the specified seed-sowing rate or,

3.6

SOD INSTALLATION

A

Bed Preparation:

1

Immediately prior to laying sod, bring areas to an even, smooth machine grade, removing all hard and soft areas and irregularities that impede surface drainage.

B

Lay sod within 24 hours of harvesting. Do not lay sod if dormant or if ground is frozen or muddy.

C

Saturate sod with fine water spray within two hours of planting. Fertilize with a slow release, low nitrogen, liquid fertilizer.

1

During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches below sod. Fertilize with a slow release, low nitrogen, liquid fertilizer.

3.6

CONTRACT PERIOD MAINTENANCE

A

Begin immediately after completion of approved initial planting and till closeout after warranty period for one year.

END OF SECTION

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