

Landscape Drawings

UNIVERSITY OF BRITISH COLUMBIA

NSDC NATURAL & SYNTHETIC TURF FIELDS

REFERENCE PLAN

SCALE - NTS

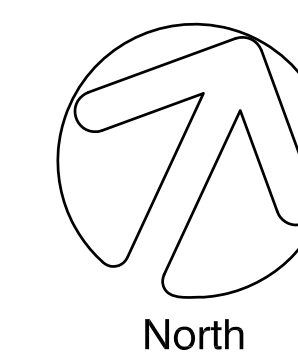
Submissions and Revisions

1. Issued For SLP/DP

Mar. 26, 2015

LIST OF DRAWINGS

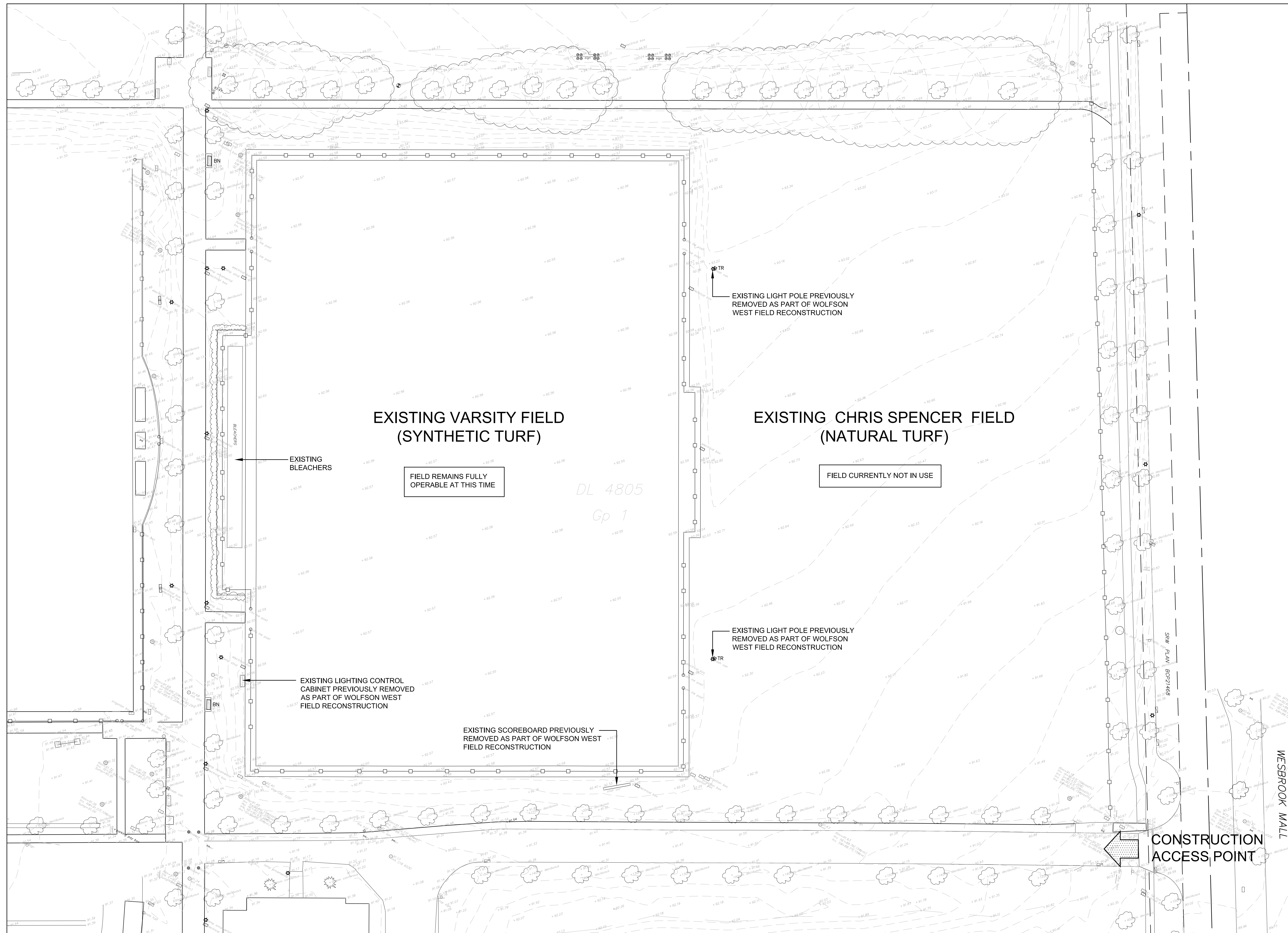
PLA-100	COVER SHEET
PLA-101	EXISTING CONDITIONS PLAN
PLA-102	DEMOLITION PLAN
PLA-103	LAYOUT AND PLANTING PLAN
PLA-104	GRADING PLAN
PLA-105	SUB-DRAINAGE GRADING PLAN
PLA-106.1	IRRIGATION PLAN
PLA-106.2	IRRIGATION DETAILS
DET-107	FIELD OF PLAY DETAILS
DET-108	LANDSCAPE DETAILS
DET-109	FENCING DETAILS
PLA-201	EXISTING CONDITIONS PLAN
PLA-202	DEMOLITION PLAN
PLA-203	LAYOUT PLAN
PLA-204	GRADING PLAN
PLA-205	SUB-DRAINAGE GRADING PLAN
PLA-206	IRRIGATION PLAN AND DETAILS
DET-207	FIELD OF PLAY DETAILS
DET-208	FENCING DETAILS



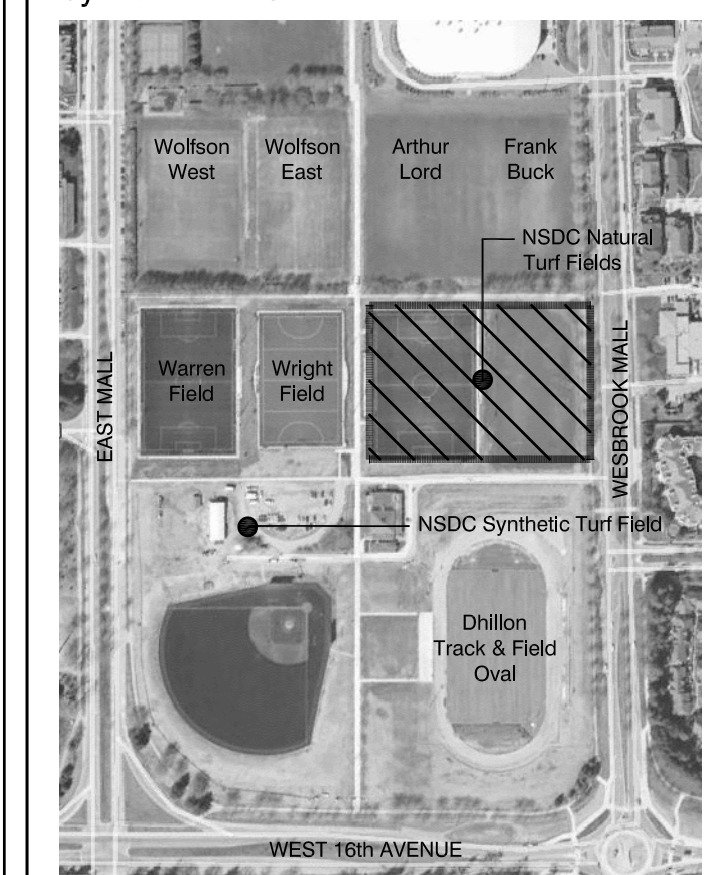
the mbtw group
 landscape architecture | urban design | design guidance | architecture | golf design | leisure design
 255 Wolkstead Ave., Unit 1A | Toronto, Ontario, Canada M4H 1G8
 T: (416) 448-7787 | F: (416) 448-1803 | www.mbtw-va.com

RICHARD FINDLAY
 LANDSCAPE ARCHITECT INC

Drawing No.:
PLA-100



Key Plan - N.T.S.



- Legend**
- EXISTING CONTOUR (0.25M INTERVALS)
 - EXISTING SPOT ELEVATION
 - EXISTING CHAIN LINK FENCE
 - EXISTING TREE
 - EXISTING VEGETATION
 - EXISTING LIGHT POLE
 - EXISTING BENCH
 - EXISTING TRASH RECEPTACLE



1.	03.26.2015	Issued for SLP/DP	JJ
No	Date	Revisions	By

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Designed By North Arrow

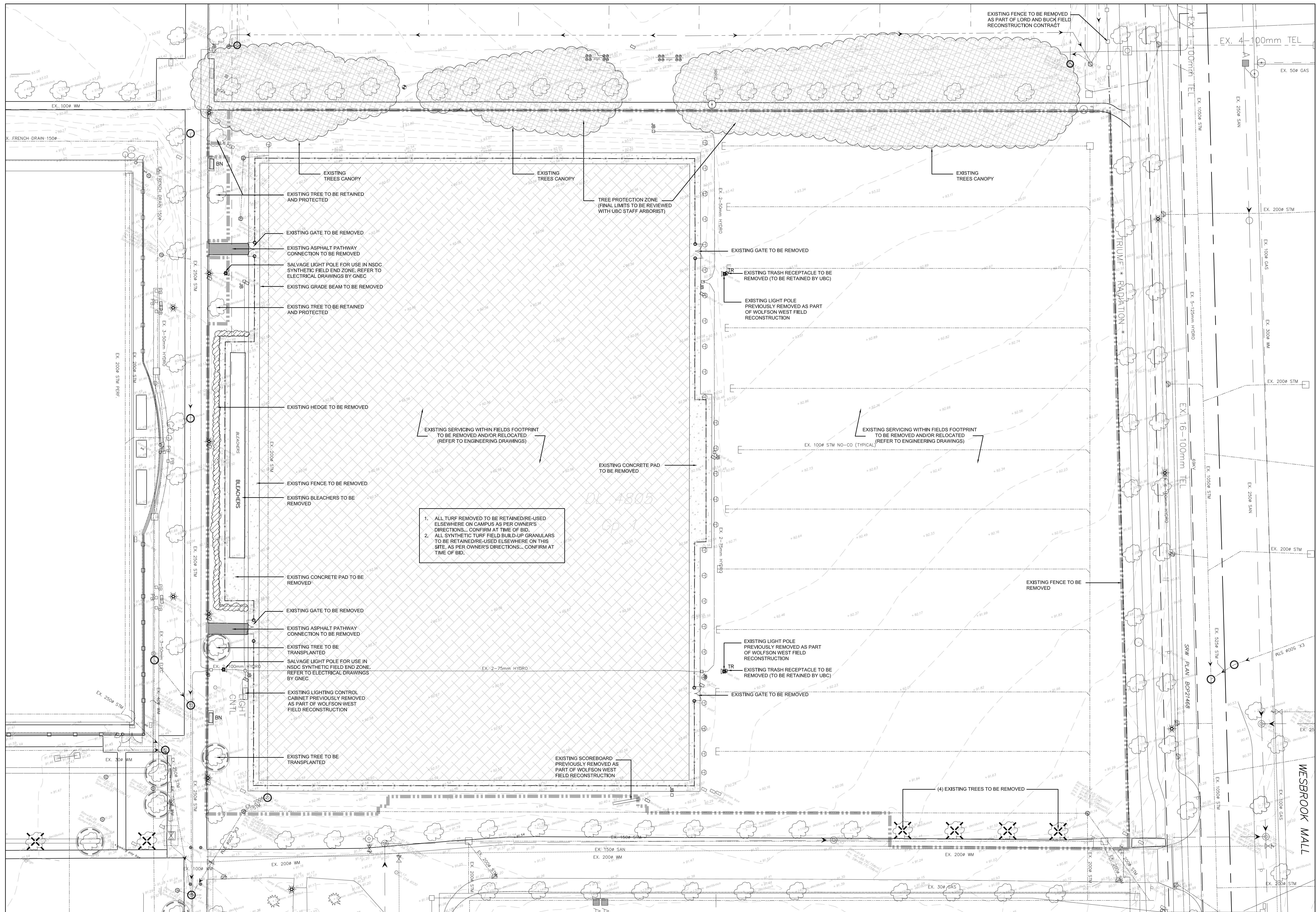
the mbtw group
Landscape Architecture • Urban Design • Design Planning • Construction • Post-Occupancy • Urban Design
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RICHARD FINDLAY
LANDSCAPE ARCHITECT INC.

Project Name: **NSDC Natural & Synthetic Turf Fields**
Municipality: University of British Columbia
Sheet Title: **EXISTING CONDITIONS PLAN**

Designed: JJ	Drawn: OL	Scale: 1:300	Drawing No.: PLA-101
Date of Drawing: DECEMBER 2014	Job No.: UPT 001		

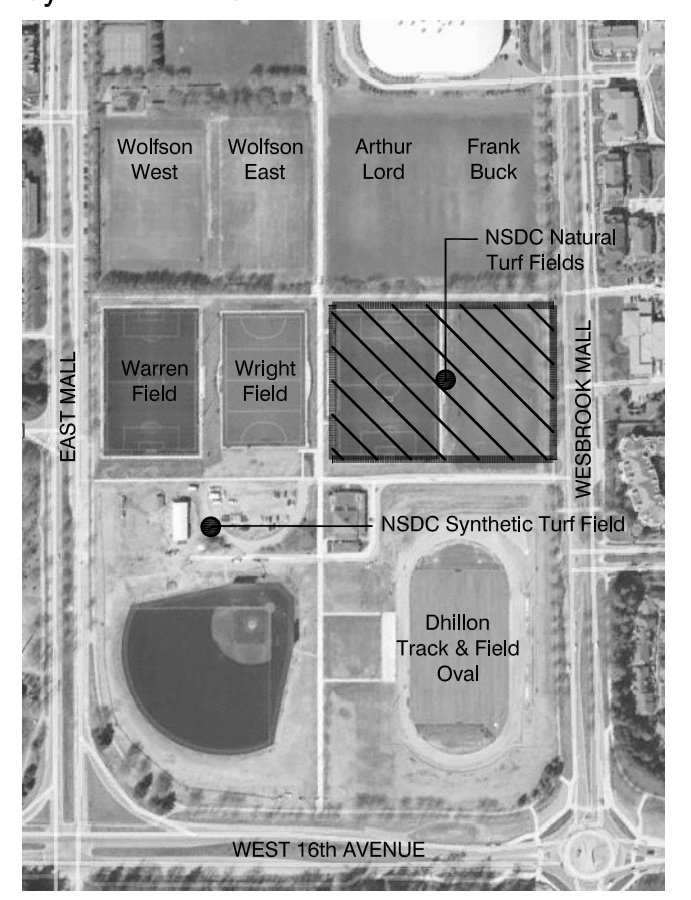
K:\Users\JL\Documents\2015\2015 NSDC Fields_SLP\101_PLA-101 (EXIST).dwg Mar 26, 2015 6:52pm



1. ALL TURF REMOVED TO BE RETAINED/RE-USED ELSEWHERE ON CAMPUS AS PER OWNER'S DIRECTIONS... CONFIRM AT TIME OF BID.
 2. ALL SYNTHETIC TURF FIELD BUILD-UP GRANULARS TO BE RETAINED/RE-USED ELSEWHERE ON THIS SITE, AS PER OWNER'S DIRECTIONS... CONFIRM AT TIME OF BID.

NOTE:
 ALL MATERIAL DESIGNATED FOR REMOVAL SHALL BE DISPOSED OF OFF SITE, UNLESS SPECIFICALLY NOTED OTHERWISE.

Key Plan - N.T.S.



Legend

- LIMIT OF WORK (INSTALL 1.8M HT. STEEL CONSTRUCTION FENCE - MODULOC OR APPROVED EQUAL)
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE REMOVED, STOCKPILED/PROTECTED, AND REPLANTED UPON COMPLETION OF EARTHWORKS
- TREE PROTECTION ZONE
- EXISTING VEGETATION TO BE REMOVED
- EXISTING CHAIN LINK FENCE TO REMAIN
- EXISTING CHAIN LINK FENCE TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING ASPHALT TO BE REMOVED
- EXISTING PARKING LOT TO BE REMOVED
- EXISTING SYNTHETIC SURFACE AND TURF SYSTEM BASE MATERIALS TO BE REMOVED
- EXISTING BLEACHERS TO BE REMOVED
- EXISTING TRASH RECEPTACLE TO BE REMOVED
- EXISTING BENCH TO REMAIN



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No	Date	Revisions	By

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Designed By North Arrow

the mbtw group
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RICHARD FINDLAY
 LANDSCAPE ARCHITECT INC

Project Name: **NSDC Natural & Synthetic Turf Fields**

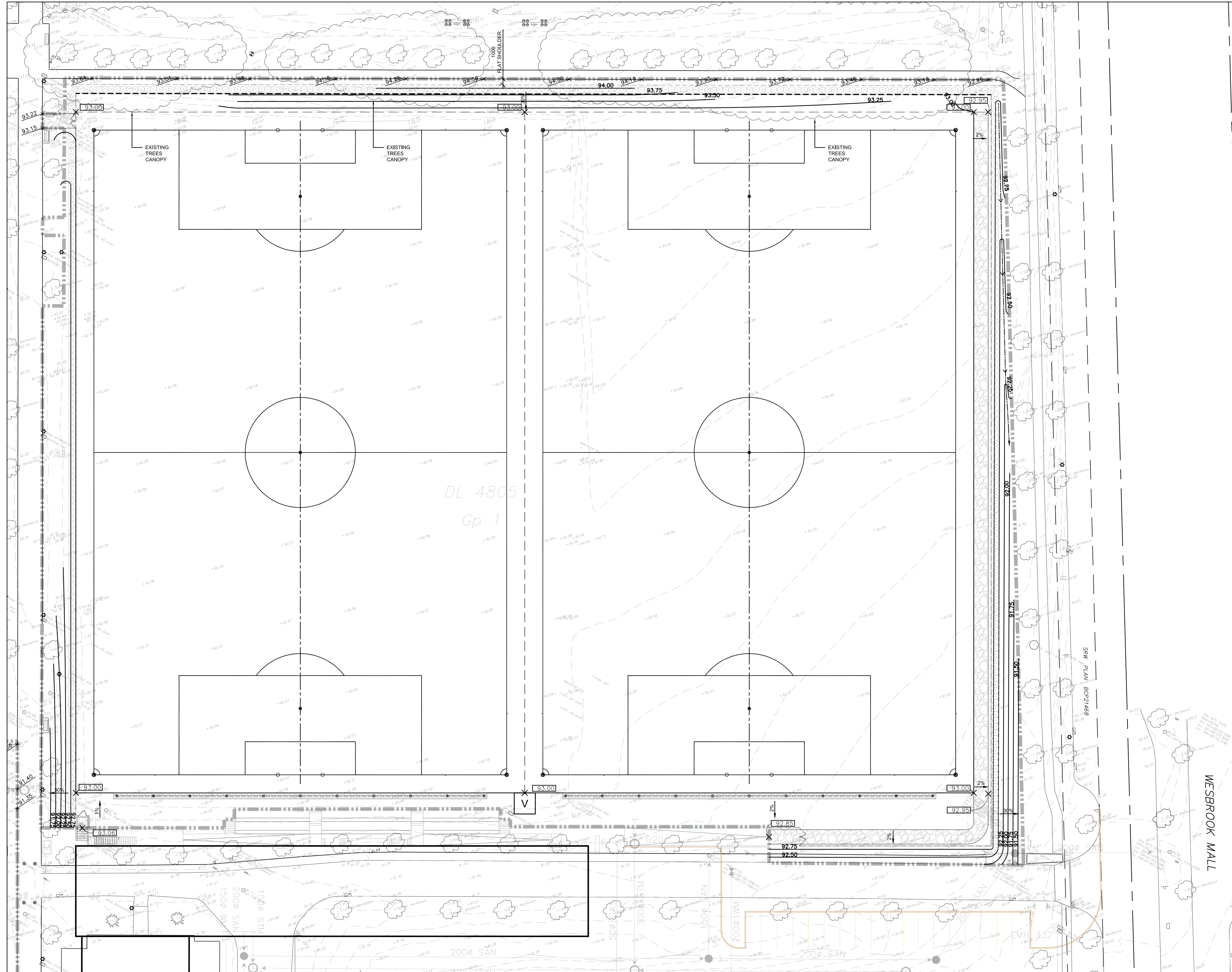
Municipality: University of British Columbia

Sheet Title: **DEMOLITION PLAN**

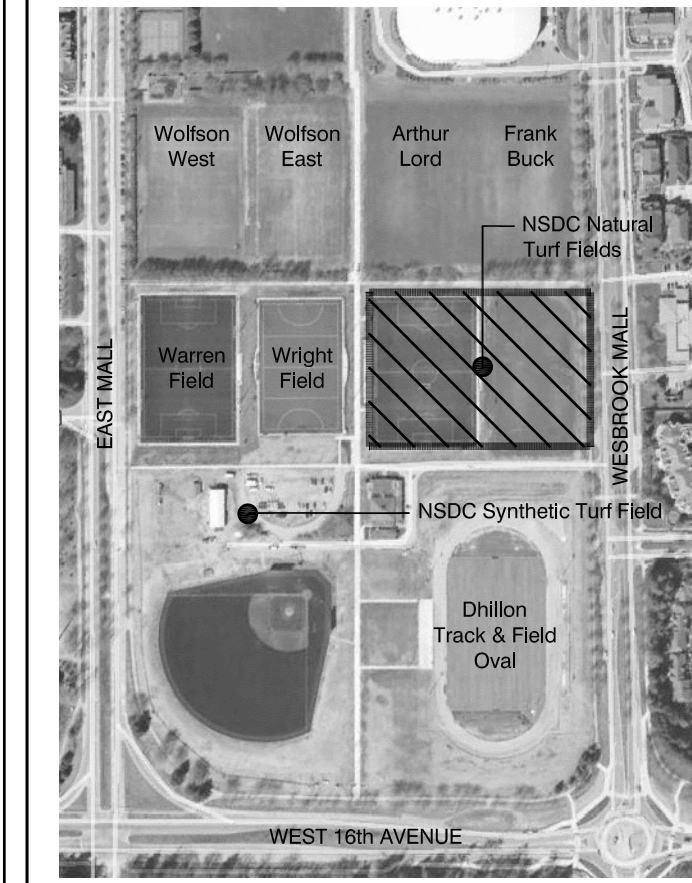
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JJ	OL	1:300	PLA-102
Date of Drawing:	Job No.:		
DECEMBER 2014	UPT 001		

GRADING NOTES:

- REFER TO GEOTECHNICAL REPORT (PROJECT 12085; GEOTECHNICAL INVESTIGATION REPORT: PROPOSED NATURAL TURF FIELDS - DATED NOVEMBER 26, 2014), AS PREPARED BY GEOPACIFIC CONSULTANTS LTD, FOR DETAILED INFORMATION ASSOCIATED WITH FIELD INVESTIGATIONS AND SUBSURFACE CONDITIONS. CONTRACTOR TO FOLLOW ALL RECOMMENDATIONS ASSOCIATED WITH SITE STRIPPING, COMPACTION OF EXISTING FILL MATERIALS, AND SITE FILLING.
- REFER TO ENGINEERING DRAWINGS AND SPECIFICATIONS (PROJECT #108), AS PREPARED BY KAMP'S ENGINEERING LIMITED, FOR DETAILED INFORMATION ASSOCIATED WITH SERVICE / UTILITIES REMOVALS AND PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OFF-SITE REMOVAL AND DISPOSAL OF ALL EXCESS MATERIALS UNLESS OTHERWISE IDENTIFIED ON THE DRAWINGS, BY THE CONSULTANT OR BY UBC REPRESENTATIVES.
- THE CONTRACTOR SHALL RETAIN AND STOCKPILE SUFFICIENT CLEAN TOPSOIL IN QUANTITIES SUITABLE FOR GENERAL SITE RESTORATION WORKS REQUIRED (AS SPECIFIED) UNDER THIS CONTRACT.
- ALL DISTURBED AREAS TO BE RESTORED WITH TURF GRASS (AS SPECIFIED) UNLESS OTHERWISE NOTED.



Key Plan - N.T.S.



Legend

- LIMIT OF WORK (INSTALL 1.8M HT. STEEL CONSTRUCTION FENCE - MODULOC OR APPROVED EQUAL)
- EXISTING TREE TO REMAIN
- PROPOSED 2.2M HT. THUJA PLUCATA (WESTERN RED CEDAR) - SEE DETAIL # 4 ON DRAWING 10B.
- - - EXISTING CONTOUR (0.25M INTERVALS)
- EXISTING SPOT ELEVATION
- 96.18 EXISTING GRADE MATCHED
- 96.50 PROPOSED CONTOUR (MBTW/RFLA)
- X (92.75) PROPOSED GRADE (MBTW/RFLA)
- 2.0% PROPOSED SLOPE (FINISHED GRADE)
- PROPOSED SWALE
- V PROPOSED CONCRETE VAULT (REFER TO SUBBAR DRAWINGS)



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Designed By: North Arrow

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RICHARD FINDLAY
 LANDSCAPE ARCHITECT INC.

Project Name:
NSDC
 Natural & Synthetic Turf Fields
 Municipality: University of British Columbia

Sheet Title:
GRADING PLAN

Designed:	Drawn:	Scale:	Drawing No.:
JJ	OL	1:300	PLA-104
Date of Drawing:	Job No.:		
DECEMBER 2014	UPT 001		

K:\Drawings\15-11\UPT001 - UBC - Mainway\15-11-2015 - NSDC - Fields - SLP\UPT001 - PLA-104 (01) - JJJ.dwg Plot Date: 26. 2015 8:53am



Tech Spec

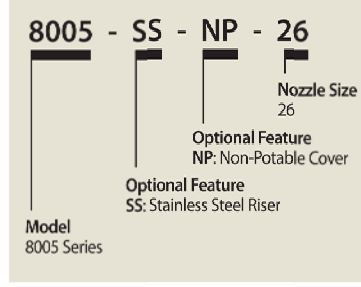
8005 Series Rotors

Bigger, Better, Built to Last
The Rain Bird® 8005 Rotor is built rugged to withstand the harshest conditions and vandalism present in commercial rotor applications. It has been designed and tested to ensure the high reliability demanded by the market today. Its extensive customer identified features and 80 foot radius make it ideal for sportsfields, parks and other large turf applications.

- Specifications
• 1" (26/34) NPT or BSP female threaded inlet
• SAM Check device holds up to 10 feet (3.1 m) of head
• Rain Curtain nozzles: 12 - beige; 14 - light green; 16 - dark brown; 18 - dark blue; 20 - red; 22 - yellow; 24 - orange; 26 - white
• Nozzle outlet trajectory is 25°
Dimensions
• Exposed diameter: 1 7/8" (4.8 cm)
• Overall diameter: 3 1/8" (7.9 cm)
• Overall height: 10 1/8" (25.7 cm)
• Pop-up height: 5" (12.7 cm)
Models
• 8005-SS 1" NPT female threaded inlet (plastic riser stem)
• 8005-NP 1" NPT female threaded inlet (stainless steel covered riser stem)
• Optional rubber collar (black)
• Optional non-potable rubber collar (purple)
• 481 models available with BSP threads

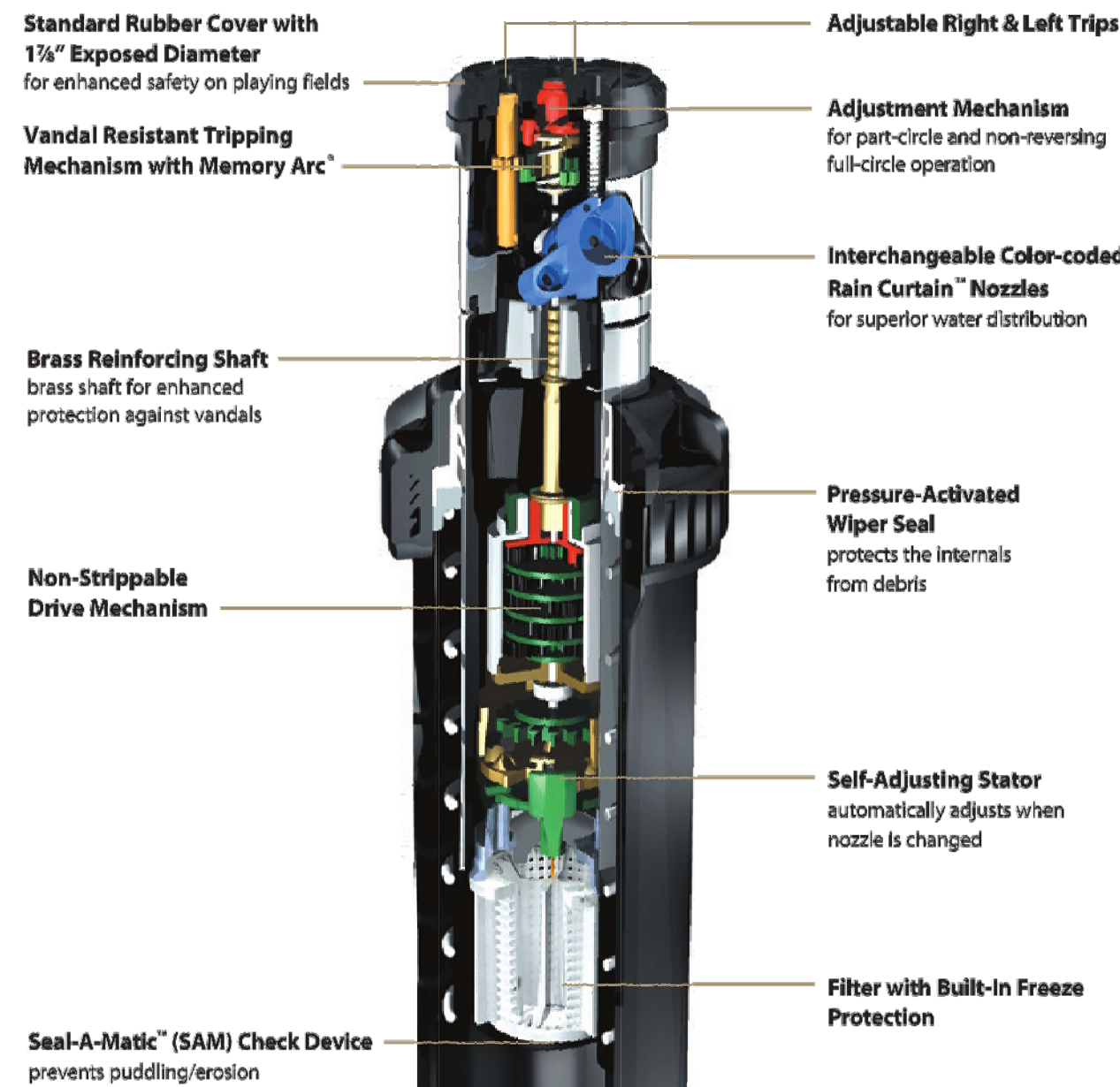


How To Specify



- Operating Range
• Radius: 57 to 81 feet (17.4 to 24.7 m)
• Pressure: 50 to 100 psi (3.5 to 6.9 bar)
• Flow: 1.1 to 36.5 gpm (4.2 to 138.4 m³/h); 0.70 to 2.29 l/s

8005 Series Rotors



www.rainbird.com

Table with 6 columns: Pressure (psi), Nozzle, Radius, Flow, Precip, Precip. Lists performance data for various nozzle sizes and pressures.

† Precipitation rates based on half-circle operation
‡ Square spacing based on 50% diameter of throw
§ Triangular spacing based on 50% diameter of throw
Performance data collected in area with conditions
Performance data does not vary with conform with ASAE Standards ASAE S308.1

Tech Spec



Specifications

The full- or part-circle sprinkler shall be a single stream, water lubricated, gear drive type capable of covering a ____ foot (meter) radius at a base pressure of ____ pounds per square inch (bar) with a discharge rate of ____ gallons per minute (l/s, m³/h).
The sprinkler shall be capable of both full circle and part circle operation in the same unit. The mode of operation shall be selected by inserting a flat blade screwdriver in the top of the rubber cap and turning a selector approximately 45 degrees. The sprinkler shall not reverse direction during continuous operation in the full circle mode. The part-circle sprinkler shall have adjustable arc coverage of 30 to 330 degrees. Arc adjustment can be performed with or without the rotor in operation and shall require only a flat blade screwdriver. The arc adjustment can be performed on both the right and left tip of the sprinkler. The sprinkler shall have a rotating turret independent of the riser stem. The portion of the riser stem that is in contact with the wiper seal shall be non-rotating.
The sprinkler shall have a pressure activated, multi-function, soft elastomeric wiper seal. This wiper seal shall prevent the sprinkler from ricking in the up position, and be capable of sealing the sprinkler riser stem to the sprinkler cap under normal operating pressures.

8005-SS

When so indicated on the design, the rotor shall have a stainless steel covered nozzle turret and riser stem. The riser stem shall be tapered and conform to the standard plastic riser in all other ways.
The sprinkler shall be as manufactured by Rain Bird Corporation, Glendale, California.

Rain Bird Corporation
9991 E. Southport Road
Tucson, AZ 85736
Phone: (520) 741-6100
Fax: (520) 812-3441

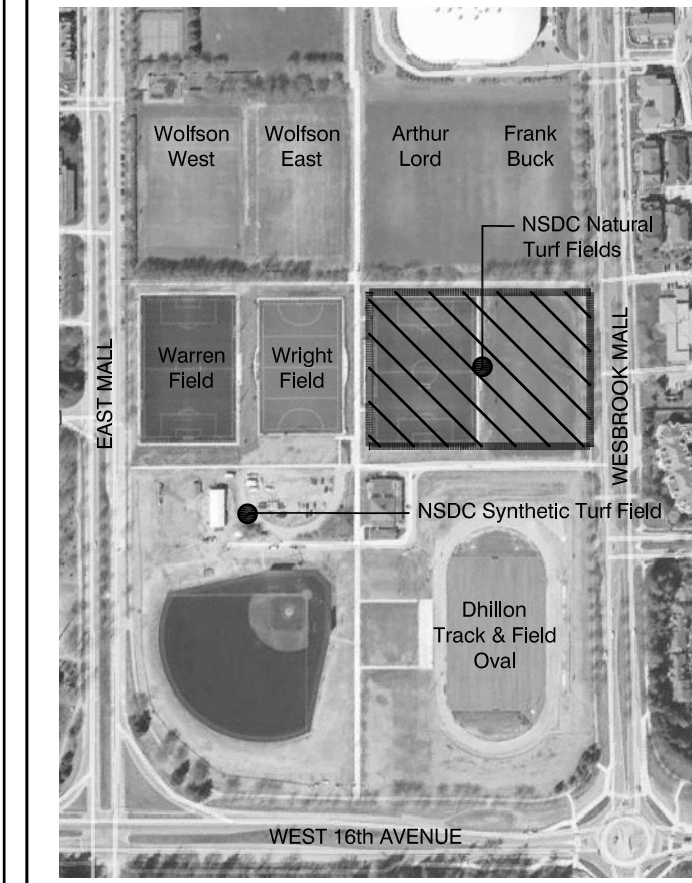
Rain Bird Corporation
970 West Sierra Madre Avenue
Azusa, CA 91702
Phone: (626) 812-2400
Fax: (626) 812-3441

Rain Bird International, Inc.
1000 West Sierra Madre Ave.
Azusa, CA 91702
Phone: (626) 812-9311
Fax: (626) 812-3441

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www.rainbird.com

Key Plan - N.T.S.



Legend

1. 03.26.2016 Issued for SLP/DP JJ
No Date Revisions By

N.T.S.

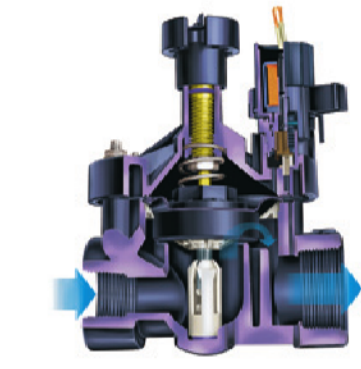


Tech Spec

PEB and PESB Series Valves

Pressure surge? Efficient water? Clogging debris? No problem. PEB and PESB Series valves offer long life and efficient, trouble-free performance—even under harsh conditions. Constructed of heavy-duty glass-filled nylon, these valves resist clogging. And the PESB model features a patented scrubber to actively fight dirt, debris and particles.

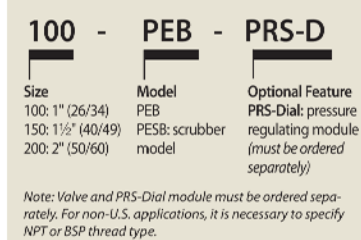
- Flow with PRS-D: 5 to 200 gpm (1.14 to 45.40 m³/h; 19.2 to 757 l/m)
• Temperature: up to 150° F (66° C)
Electrical Specifications
• Power: 24 VAC 50/60 Hz (cycles/sec) solenoid
• Inrush current: 0.41 A (9.84 VA) at 60 Hz
• Holding current: 0.28 A (6.72 VA) at 60 Hz
• Coil resistance: 30-39 Ohms
• Compatible with ESP-LVD decoders
Features
• Body constructed of durable glass-filled nylon for long life and heavy-duty performance at 200 psi (13.80 bar) pressure
• Stainless steel studs molded into the body. Bonnet can be attached and removed more easily without damaging threads
• One-piece solenoid design with castured plunger and spring for easy servicing. Prevents loss of parts during field service
• External bleed protects the solenoid ports from debris when system is flushed
• Internal bleed operates the valve without allowing water into the valve box allows pressure regulator to be adjusted without turning on the valve at the controller feet
• Low flow operating capability (0.25 gpm; 0.05 m³/h; 1.2 l/m) for a wide range of applications. For flows below 1 gpm (1.14 m³/h; 19.2 l/m) or any Xerigation® application, install Rain Bird Y Filter upstream
• Slow closing to prevent water hammer and subsequent system damage
• PESB only: Scrubber scrapes its stainless steel screen clean to break down grit and plant material. Prevents debris build-up and clogging



Dimensions

Table with 5 columns: Flow, Pressure, Length, Width. Lists dimensions for various valve sizes and pressures.

How To Specify



- Operating Range
• Pressure: 20 to 200 psi (1.38 to 13.80 bar)
• Flow: 0.25 to 200 gpm (0.05 to 45.40 m³/h; 1.2 to 757 l/m)

IRRIGATION HEAD

1



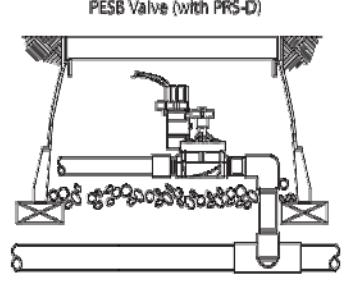
Specifications

The electric remote control valve shall be a normally closed 24 VAC 50/60 Hz (cycles/sec) solenoid actuated globe pattern design. The valve pressure rating shall not be less than 200 psi (13.80 bar). The valve shall have the following characteristics (circle one):
Flow rate: ____ gpm m³/h l/m
Pressure loss not to exceed: ____ psi bar
The valve body shall be constructed of heavy-duty glass-filled UV-resistant nylon and have stainless steel studs and flange nuts; diaphragms shall be of nylon reinforced nitrile rubber.

Optional Feature Specification

PRS-D Pressure Regulating Module
150PEB-PRS-D 150PESB-PRS-D
200PEB-PRS-D 200PESB-PRS-D
When so indicated on the design, the 1 1/2" and 2" electric remote control plastic valves shall have a pressure regulating module (PRS-D) capable of regulating outlet pressure between 15 and 100 psi (1.04 and 6.90 bar (±0.21 bar)).
The PRS-D module shall have an adjusting knob for setting pressure and Schrader valve connection for monitoring pressure. The pressure shall be adjustable from the PRS-D when the valve is internally manually bled or electrically activated.

Plastic Electric Remote Control PEB or PESB Valve (with PRS-D)



Non-Potable Flow Control Handle™

PEB-NP-HAN2 - Fits 1"
PEB-NP-HAN2 - Fits 1 1/2" and 2"
When so indicated on the design, the valve shall have a purple flow control handle to indicate to the user that non-potable water is being used. There shall be no difference between the black and purple handles except for the color.

† Rain Bird offers the PESB-IP (inverted) version valve and connection kit for irrigation applications. Please see Tech Spec D3738B, the Rain Bird catalog, or visit www.rainbird.com for more information.

Rain Bird Corporation
9991 E. Southport Road
Tucson, AZ 85736
Phone: (520) 741-6100
Fax: (520) 812-3441

Rain Bird Corporation
970 West Sierra Madre Avenue
Azusa, CA 91702
Phone: (626) 812-2400
Fax: (626) 812-3441

Rain Bird International, Inc.
1000 West Sierra Madre Ave.
Azusa, CA 91702
Phone: (626) 812-9311
Fax: (626) 812-3441

Rain Bird Technical Services
(800) RAINBIRD | 1-800-734-6247

Specification Hotline
(800) 498-3005 (U.S. and Canada)

The Intelligent Use of Water™
www.rainbird.com

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D3890800

N.T.S.

FOR ALL WATER CONNECTION DETAILS, REFER TO DRAWINGS BY KAMPS ENGINEERING.



Table with 4 columns: No, Date, Revisions, By. Row 1: 03.26.2016, Issued for SLP/DP, JJ

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Designed By North Arrow



Project Name:

NSDC
Natural & Synthetic Turf Fields

Municipality: University of British Columbia

Sheet Title:

IRRIGATION DETAILS

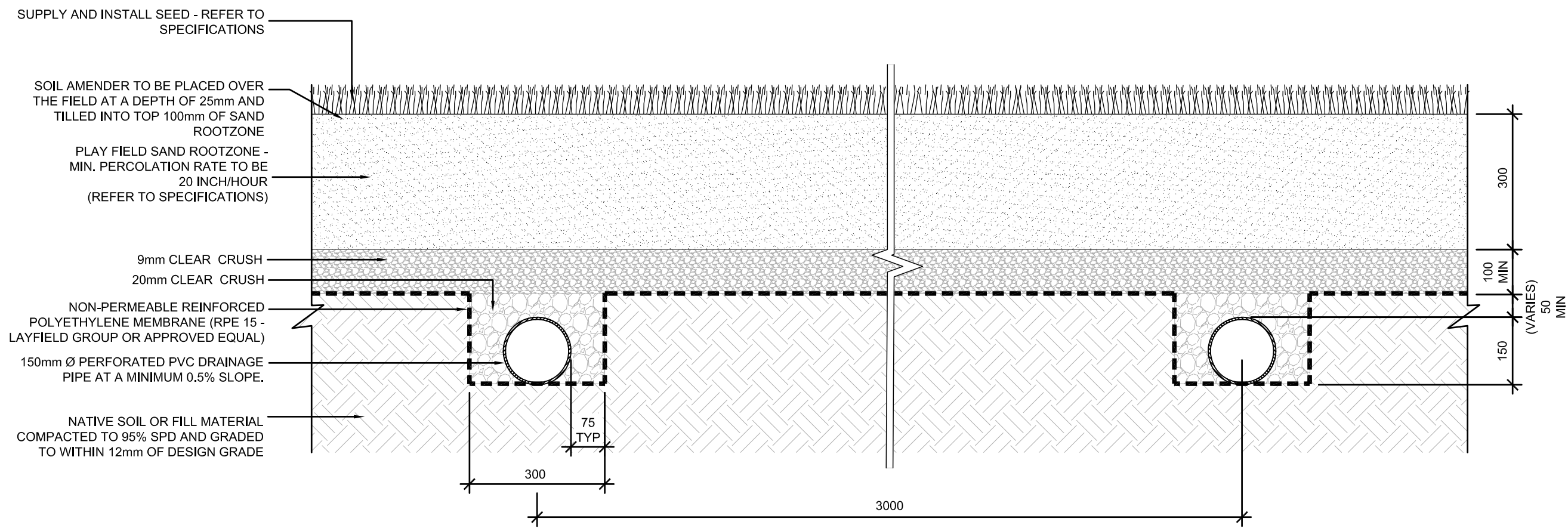
Designed: JJ Drawn: OL Scaled: AS SHOWN Drawing No.:

Date of Drawing: JANUARY 2015 Job No.: UPT 001

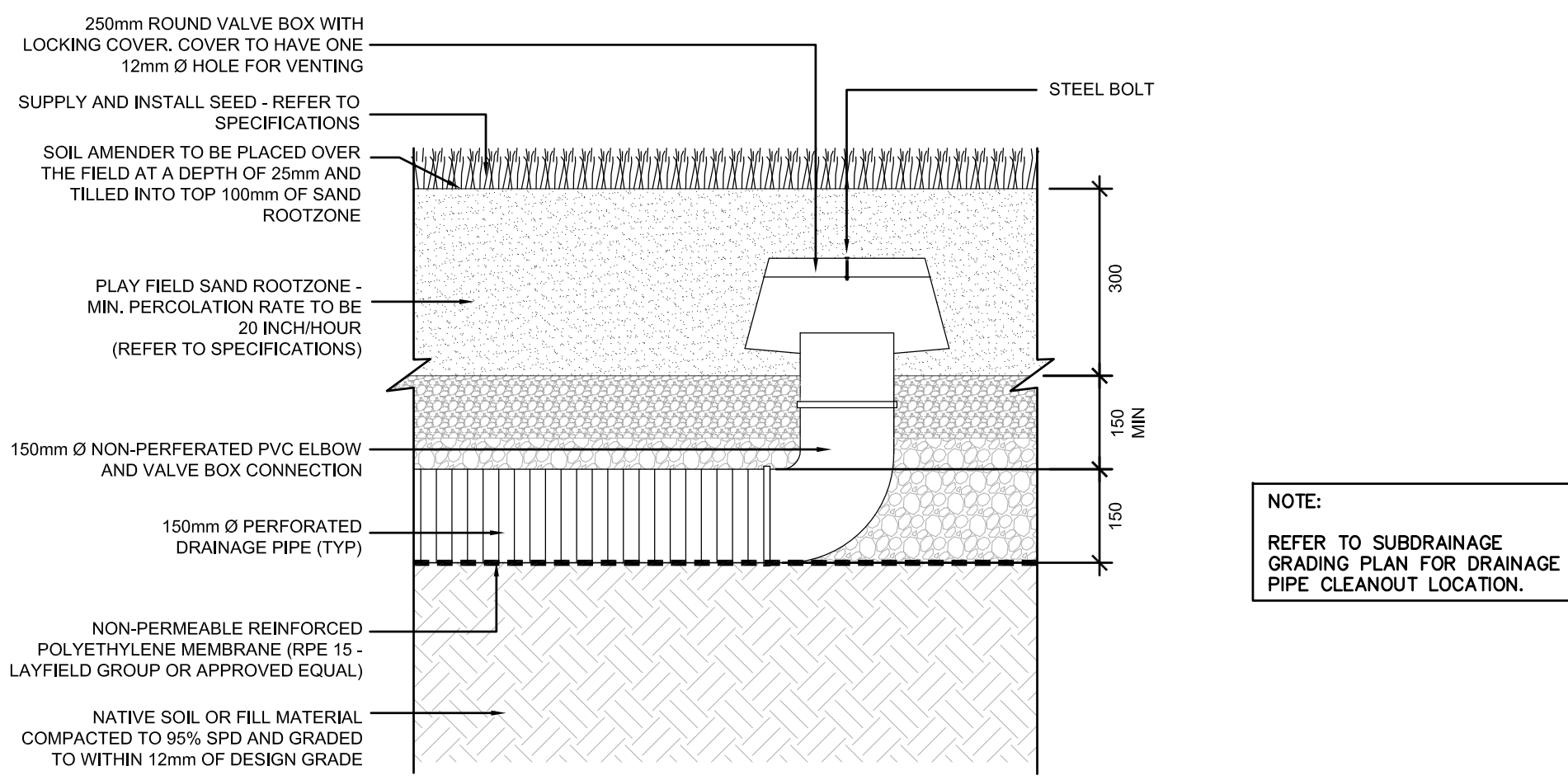
PLA-106.2

IRRIGATION VALVE

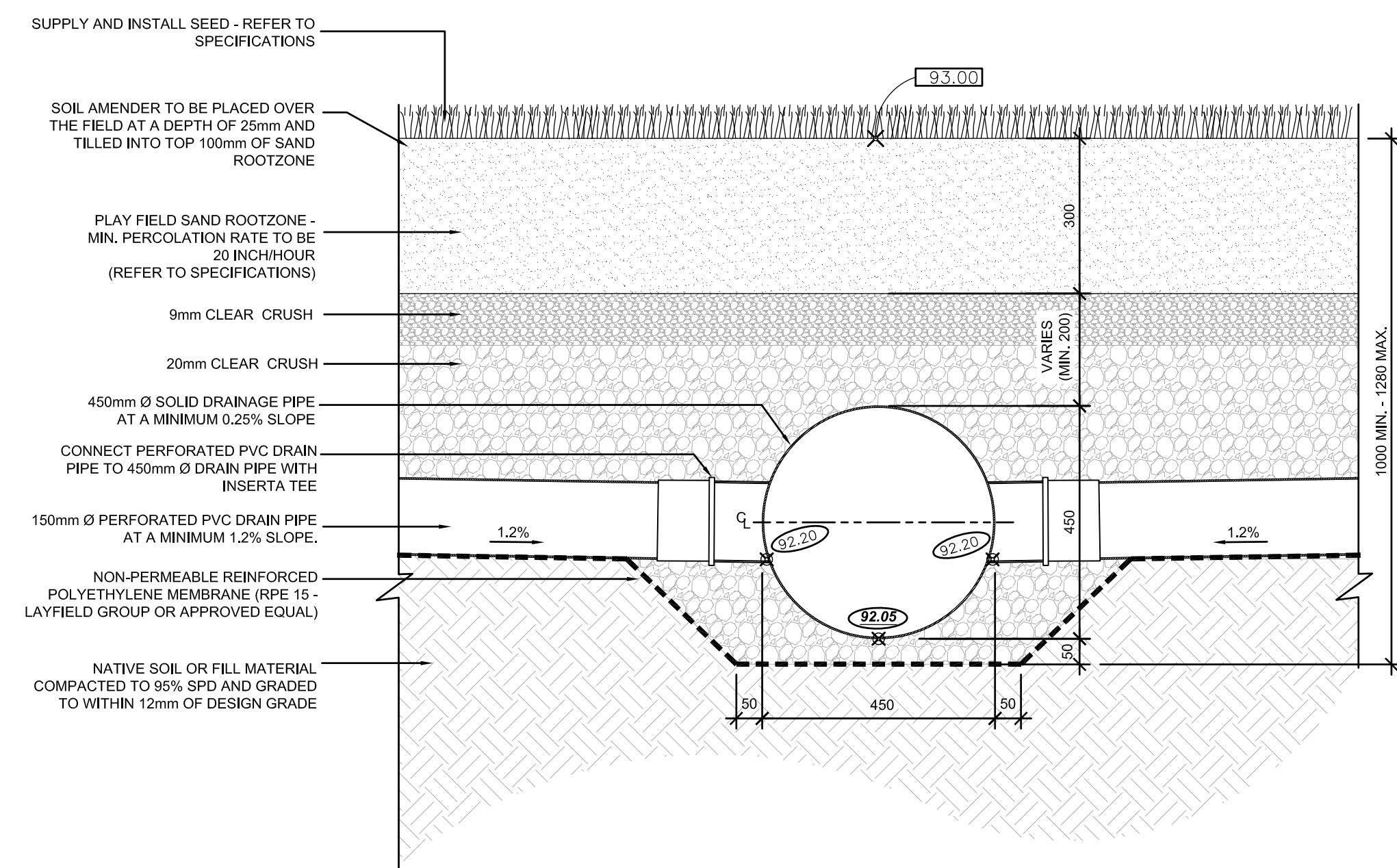
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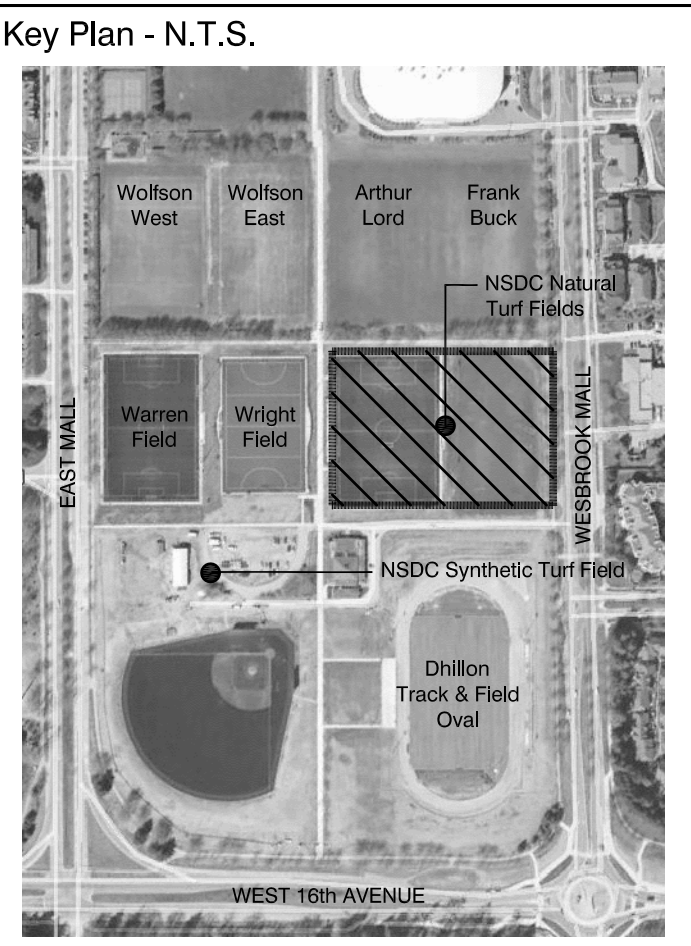
1 NATURAL TURF TYPICAL CROSS SECTION 1:10



2 NATURAL TURF DRAINAGE PIPE CLEANOUT 1:10



3 NATURAL TURF TYPICAL CROSS SECTION AT 450 Ø COLLECTOR PIPE (HIGH POINT) 1:10



Key Plan - N.T.S.

Legend



No	Date	Revisions	By
1.	03.26.2015	Issued for SLP/DP	JJ

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 landscape architecture urban design design planning construction | post design interior design
 255 Waterland Ave., Unit 1A Toronto, Ontario, Canada M5H 1S8
 T: (416) 461-7767 F: (416) 461-1851 www.mbtw.com

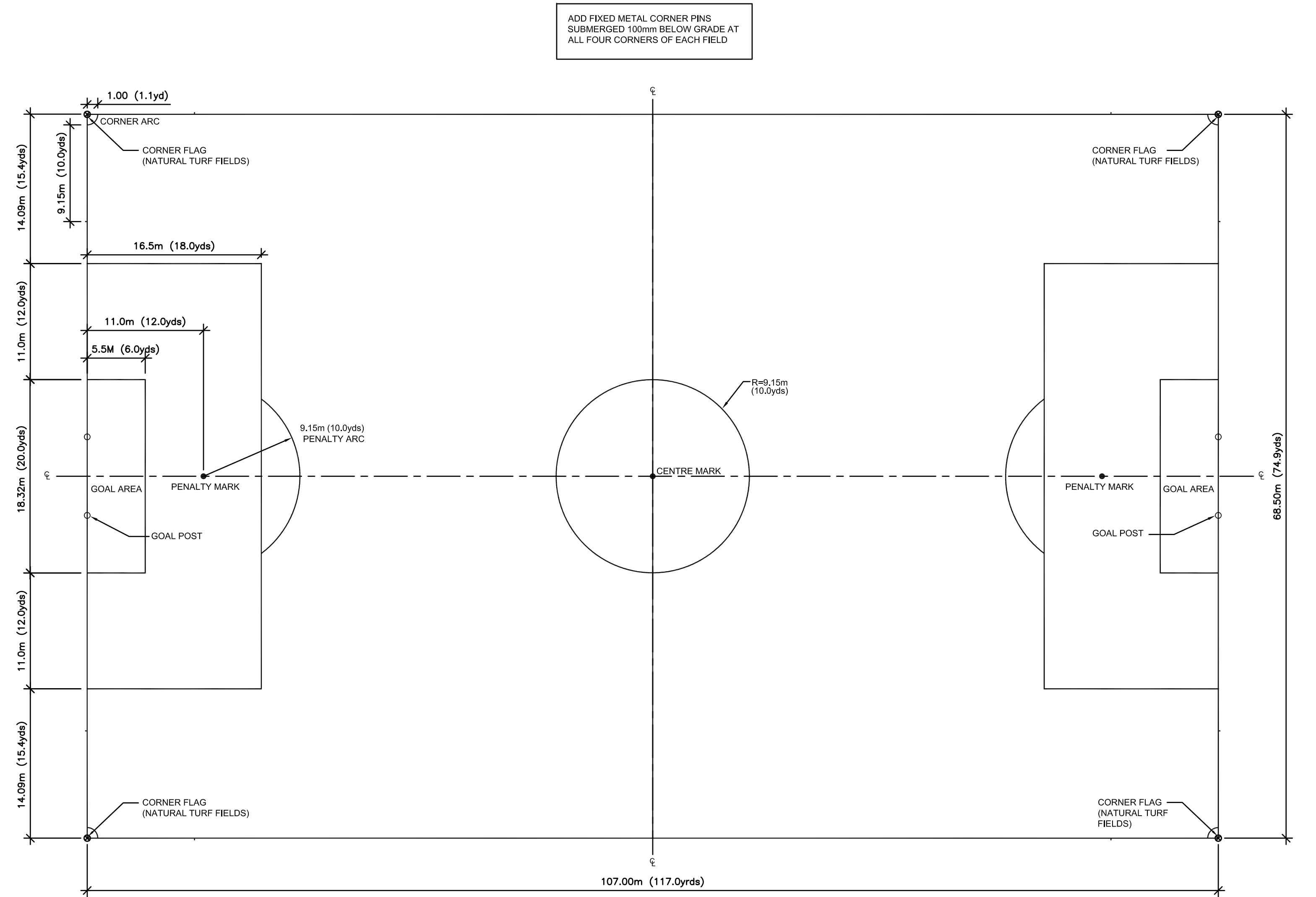
RICHARD FINDLAY
 LANDSCAPE ARCHITECT INC

Project Name:
NSDC
 Natural & Synthetic Turf Fields
 Municipality: University of British Columbia

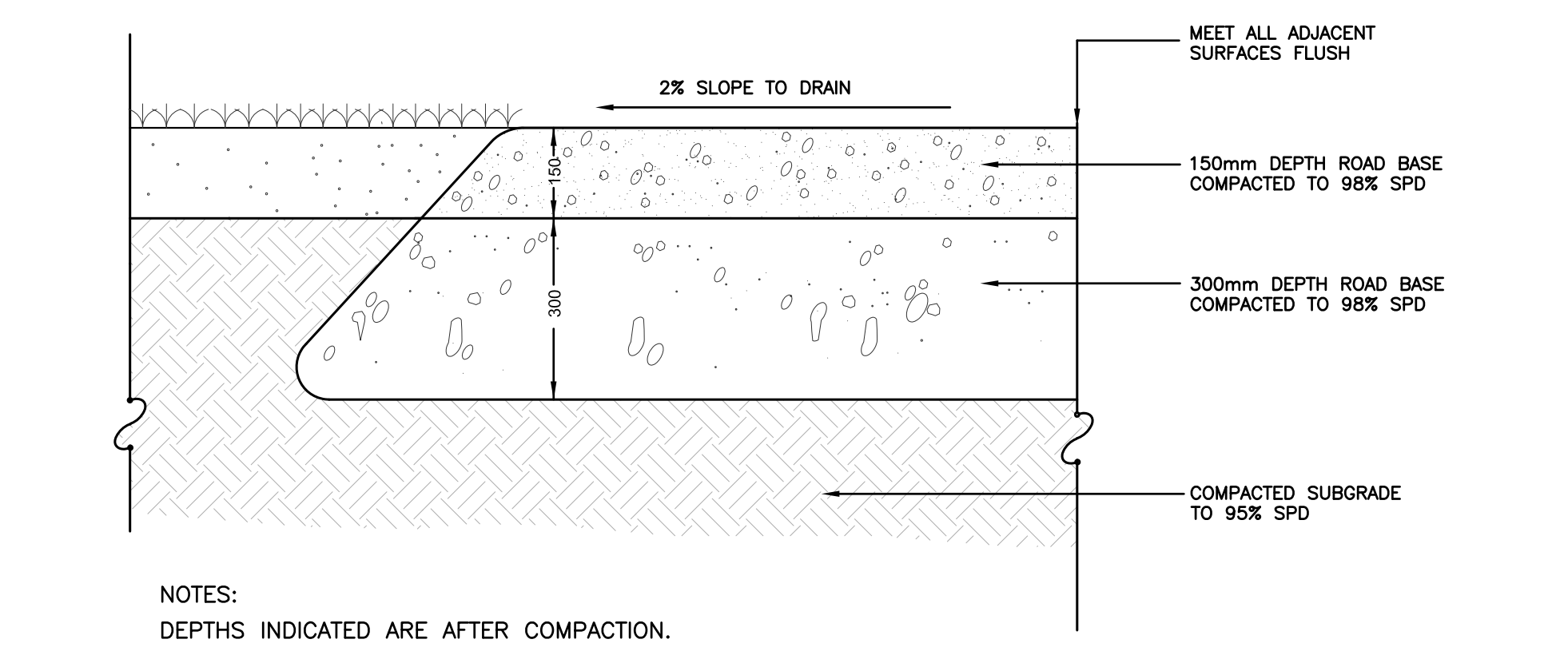
Sheet Title:
FIELD OF PLAY DETAILS

Designed: JJ	Drawn: OL	Scale: AS SHOWN	Drawing No.:
Date of Drawing: DECEMBER 2014	Job No.:	UPT 001	DET-107

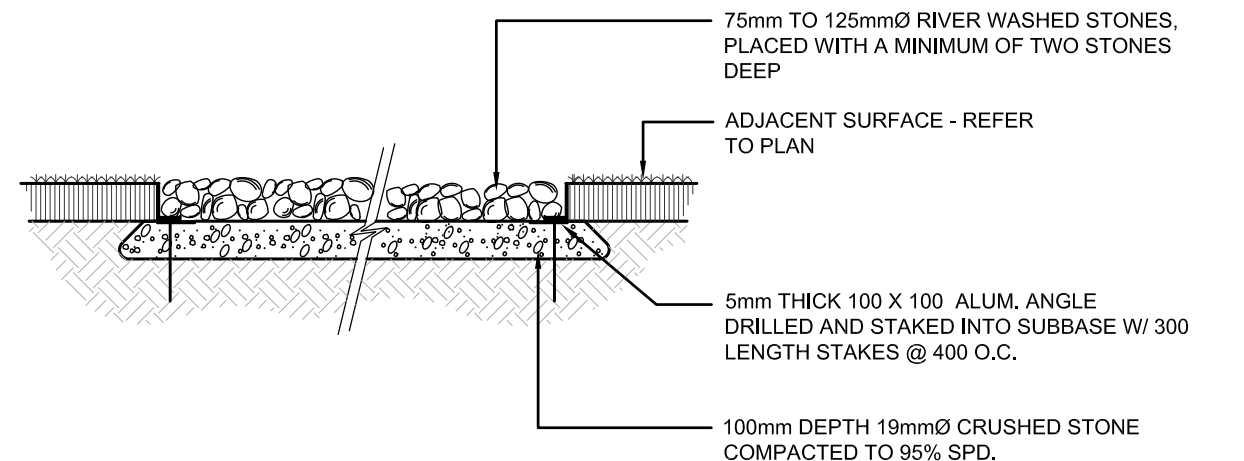
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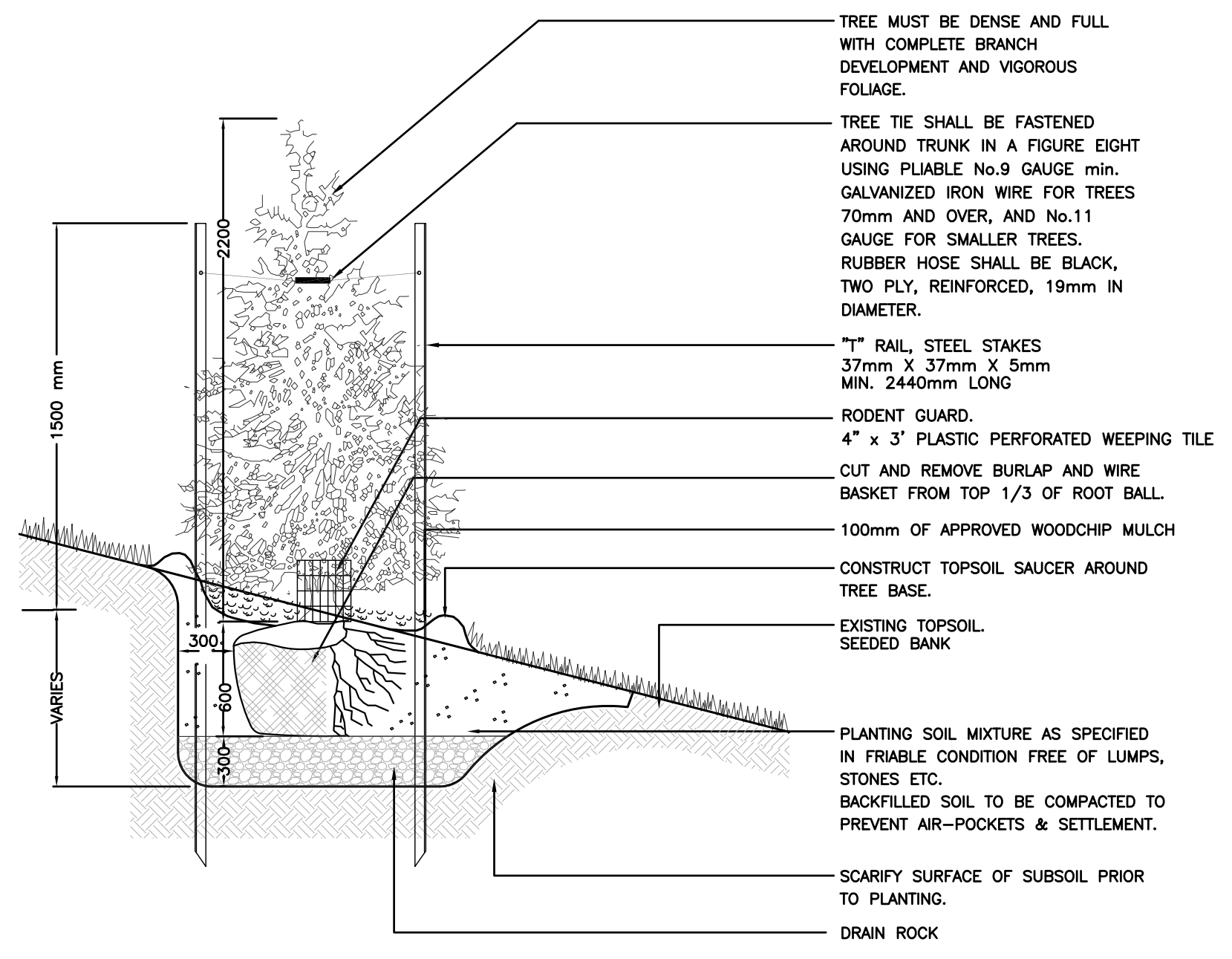
1 TYPICAL SOCCER FIELD LAYOUT 1:300



2 VEHICULAR GRANULAR PAVING N.T.S.

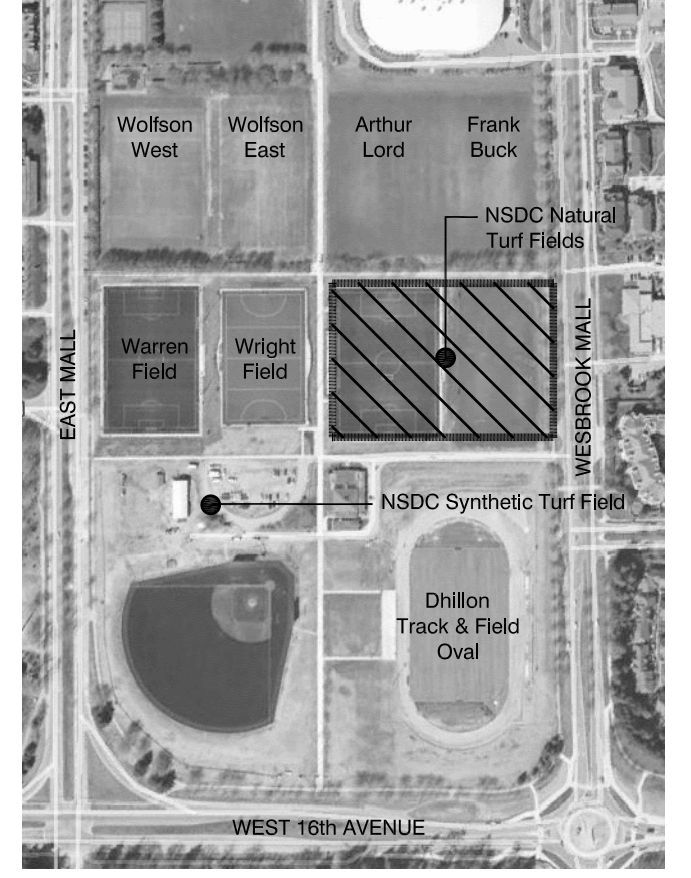


3 WASHED RIVERSTONE MULCH TYPICAL DETAIL N.T.S.



4 CEDAR PLANTING TYPICAL DETAIL N.T.S.

Key Plan - N.T.S.



Legend



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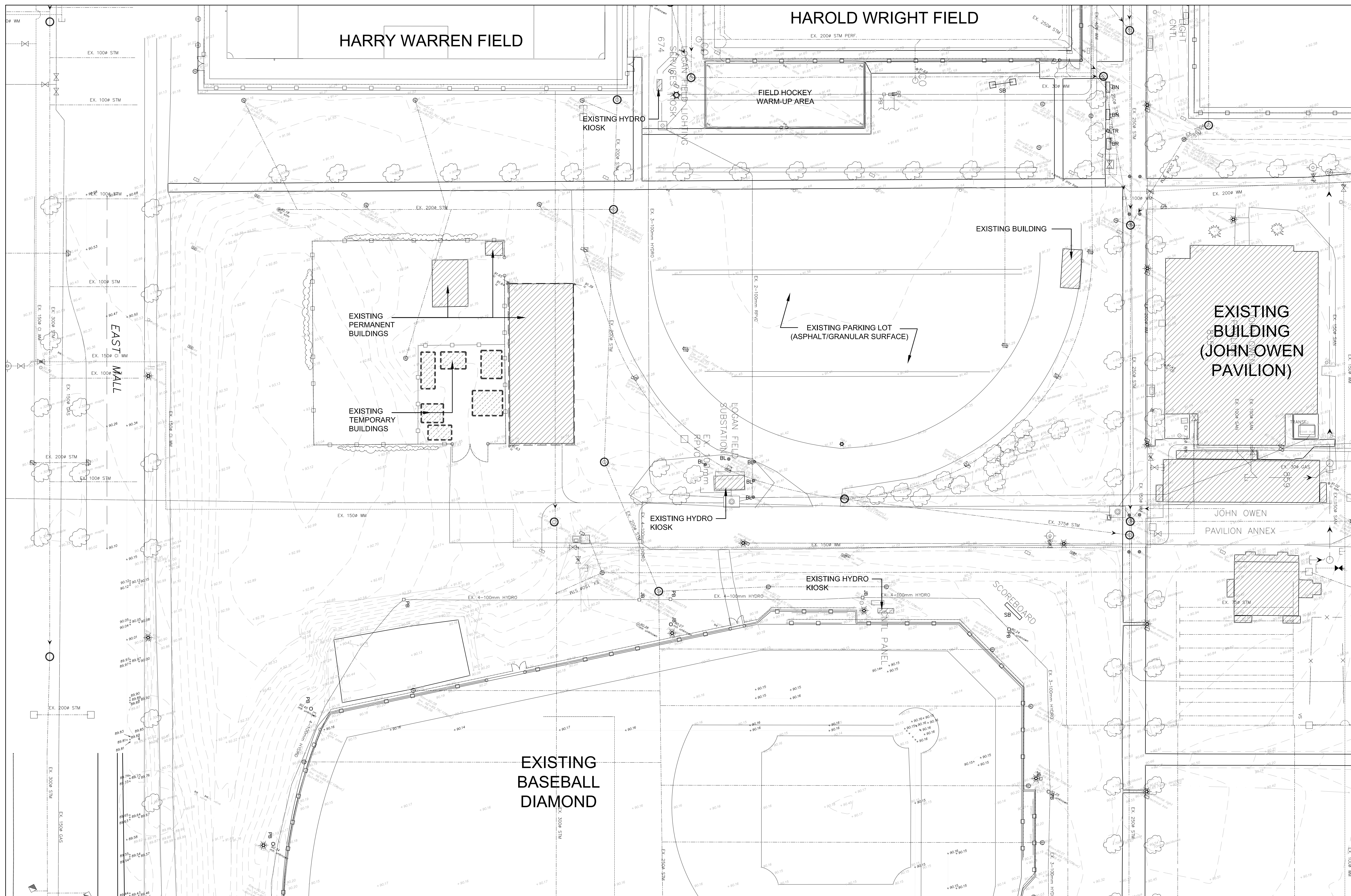
Project Name:

NSDC
 Natural & Synthetic Turf Fields

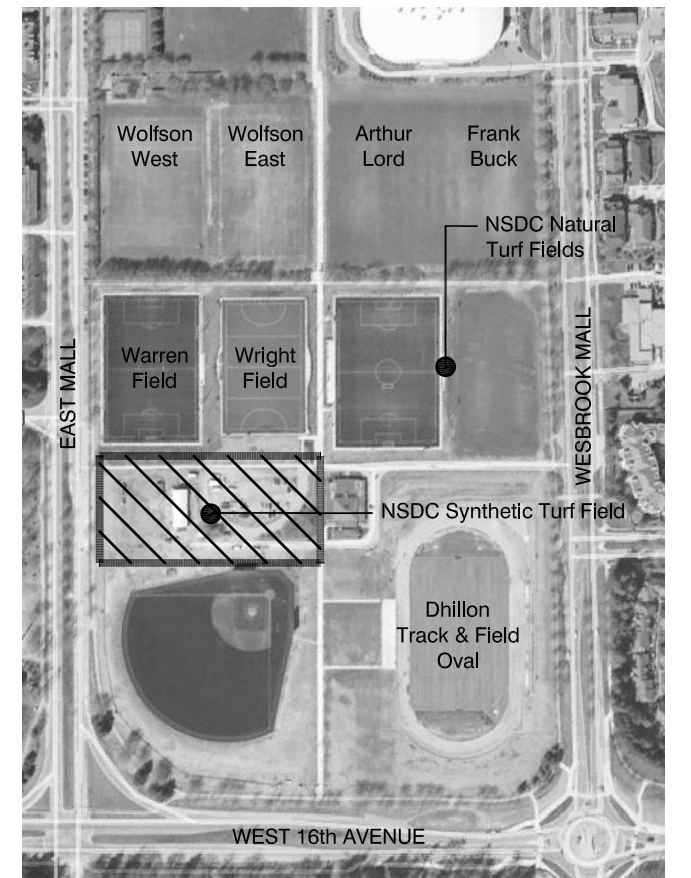
Municipality: University of British Columbia

Sheet Title:
LANDSCAPE DETAILS

Designed:	Drawn:	Scale:	Drawing No.:
JJ	OL	AS SHOWN	DET-108
Date of Drawing:	Job No.:		
DECEMBER 2014	UPT 001		



Key Plan - N.T.S.



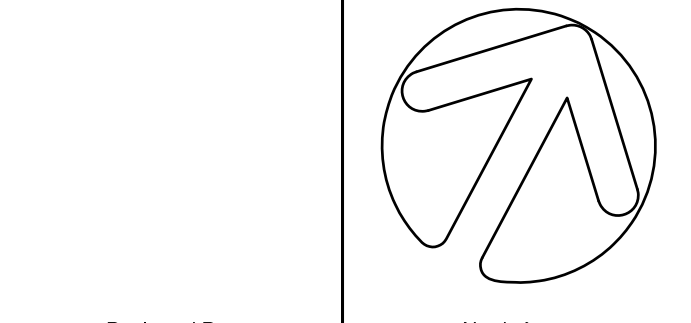
Legend

- EXISTING CONTOUR (0.25M INTERVALS)
- EXISTING SPOT ELEVATION
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- EXISTING VEGETATION
- EXISTING PERMANENT BUILDING/STRUCTURE
- EXISTING TEMPORARY BUILDING/STRUCTURE
- EXISTING LIGHT POLE
- EXISTING STEEL BOLLARD
- EXISTING BENCH
- EXISTING TRASH RECEPTACLE
- EXISTING BIKE RACK
- EXISTING SCOREBOARD



1.	03.26.2015	Issued for SLP/DP	JJ
No	Date	Revisions	By

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Designed By the mbtw group
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RICHARD FINDLAY
 LANDSCAPE ARCHITECT INC

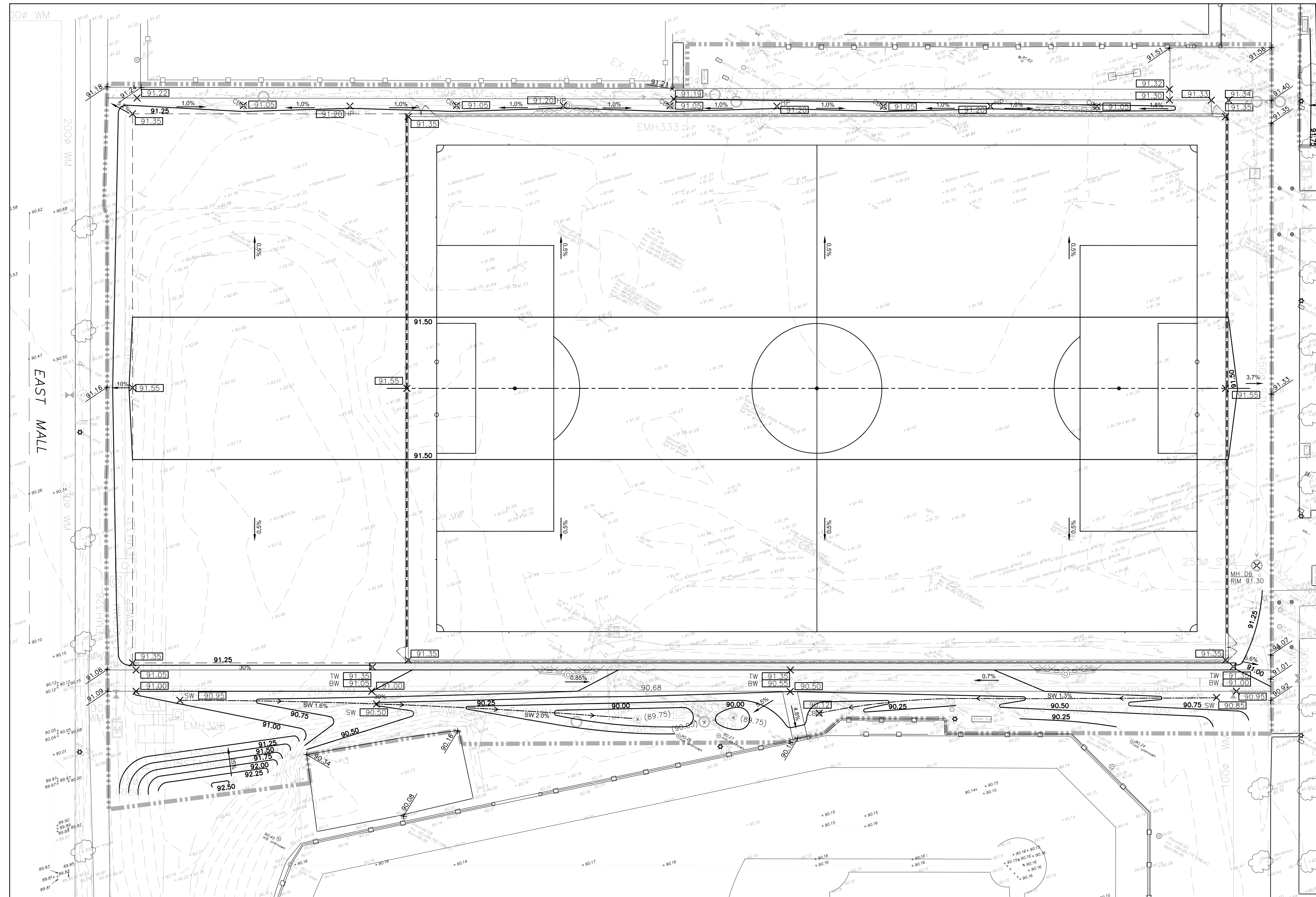
Project Name:
NSDC
 Natural & Synthetic Turf Fields
 Municipality: University of British Columbia

Sheet Title:
EXISTING CONDITIONS PLAN

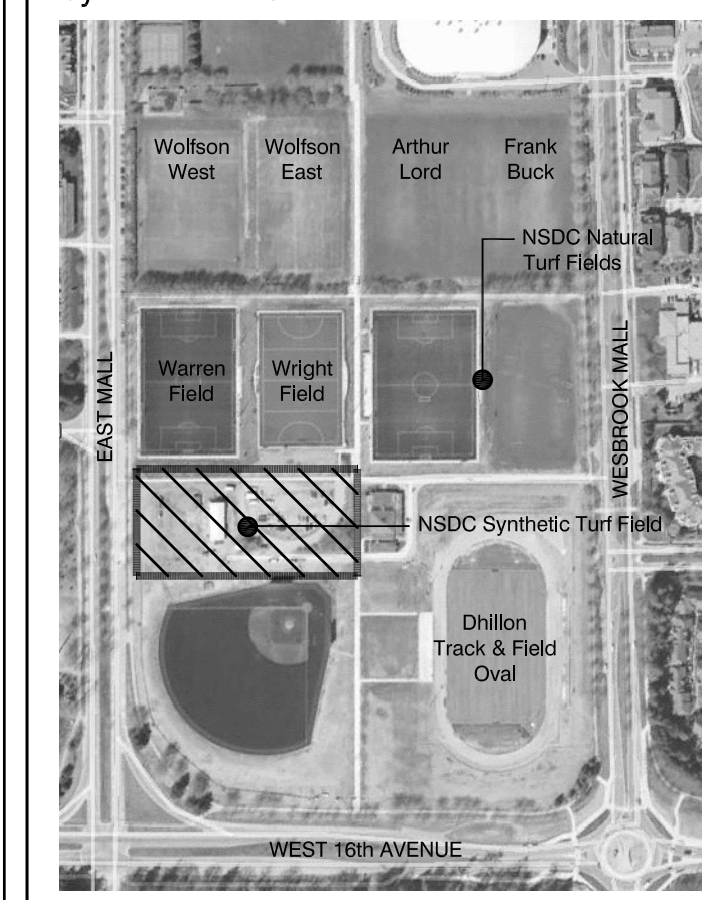
Designed:	Drawn:	Scale:	Drawing No.:
JJ	OL	1:300	PLA-201
Date of Drawing:	Job No.:		
DECEMBER 2014	UPT 001		

GRADING NOTES:

1. REFER TO GEOTECHNICAL REPORT (PROJECT NUMBER 12085; GEOTECHNICAL INVESTIGATION REPORT, PROPOSED SYNTHETIC TURF FIELDS - DATED NOVEMBER 25, 2014), AS PREPARED BY GEOPACIFIC CONSULTANTS LTD. FOR DETAILED INFORMATION ASSOCIATED WITH FIELD INVESTIGATIONS AND SUBSURFACE CONDITIONS. CONTRACTOR TO FOLLOW ALL RECOMMENDATIONS ASSOCIATED WITH SITE STRIPPING, COMPACTION OF EXISTING FILL MATERIALS, AND SITE FILLING.
2. REFER TO ENGINEERING DRAWINGS AND SPECIFICATIONS (PROJECT 8108), AS PREPARED BY KAMPS ENGINEERING LIMITED, FOR DETAILED INFORMATION ASSOCIATED WITH SERVICE / UTILITIES REMOVALS AND PROPOSED CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OFF-SITE REMOVAL AND DISPOSAL OF ALL EXCESS MATERIALS UNLESS OTHERWISE IDENTIFIED ON THE DRAWINGS, BY THE CONSULTANT OR BY UBC REPRESENTATIVES.
4. THE CONTRACTOR SHALL RETAIN AND STOCKPILE SUFFICIENT CLEAN TOPSOIL IN QUANTITIES SUITABLE FOR GENERAL SITE RESTORATION WORKS REQUIRED (AS SPECIFIED) UNDER THIS CONTRACT.
5. ALL DISTURBED AREAS TO BE RESTORED WITH TURF GRASS (AS SPECIFIED) UNLESS OTHERWISE NOTED.



Key Plan - N.T.S.



Legend

- LIMIT OF WORK (INSTALL 1.8M HT. STEEL CONSTRUCTION FENCE - MODULOC OR APPROVED EQUAL)
- ☼ EXISTING TREE TO REMAIN
- - - EXISTING CONTOUR (0.25M INTERVALS)
- EXISTING SPOT ELEVATION
- 91.15 x EXISTING GRADE MATCHED
- 91.50 PROPOSED CONTOUR (MBTW/RFLA)
- x (89.75) PROPOSED GRADE (MBTW/RFLA)
- 2.0% PROPOSED SLOPE (FINISHED GRADE)
- SW 1.3% PROPOSED SWALE
- CB (89.75) PROPOSED CATCH BASIN (MBTW/RFLA)
- ⊗ (89.75) PROPOSED CATCH BASIN (KAMPS ENGINEERING)
- ⊙ (91.00) PROPOSED MANHOLE (KAMPS ENGINEERING)
- HP / LP PROPOSED HIGH POINT / LOW POINT
- TW / BW PROPOSED TOP OF WALL / BOTTOM OF WALL



1.	03.26.2015	Issued for SLP/DP	JJ
No	Date	Revisions	By

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Designed By North Arrow

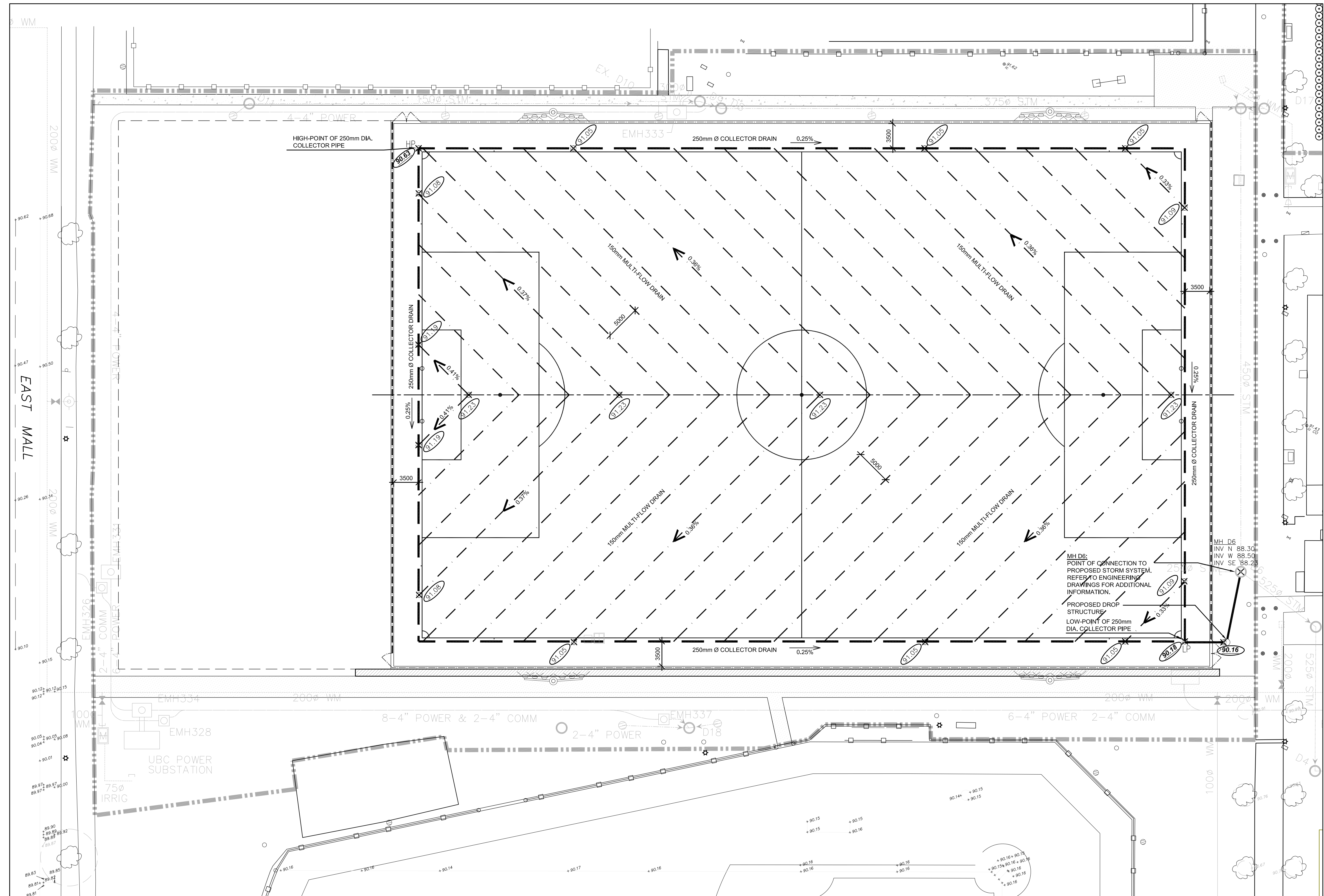
the mbtw group
 Landscape Architecture | Urban Design | Design Planning | Construction | Post-Occupancy | Urban Design
 255 Waterland Ave., Unit 1A Toronto, Ontario, Canada M5M 1S8
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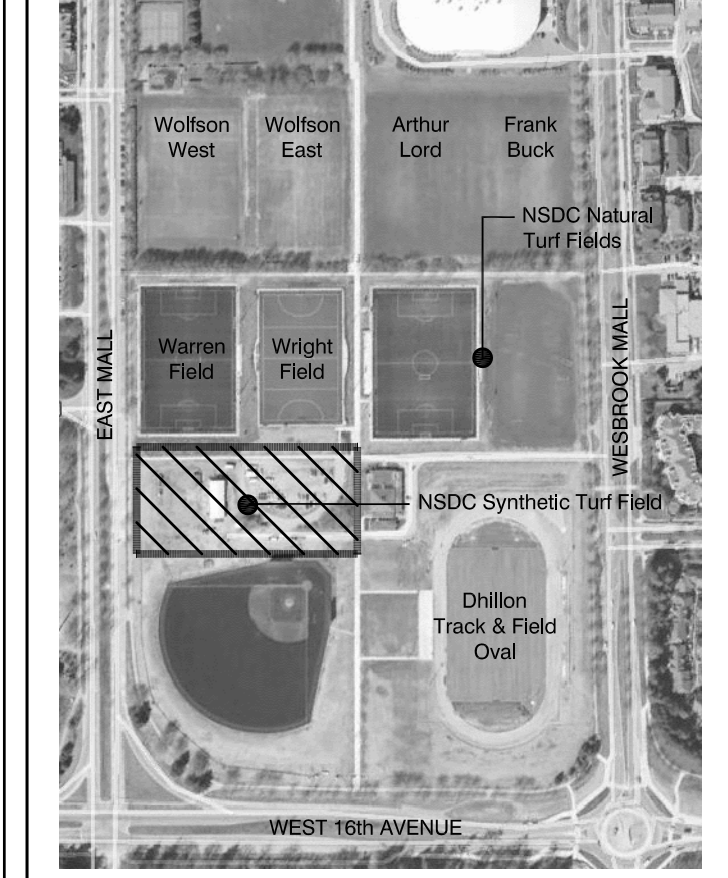
Project Name:
NSDC
 Natural & Synthetic Turf Fields
 Municipality: University of British Columbia
 Sheet Title:
GRADING PLAN

Designed: JJ	Drawn: OL	Scale: 1:300	Drawing No.:
Date of Drawing: DECEMBER 2014	Job No.:	UPT 001	PLA-204

K:\Drawing\2015\15-11\UPT001 - UBC - NSDC - Natural & Synthetic Turf Fields - SLP/DP\001 - PLA-204.dwg Plot Date: 26-Nov-2015 8:59am



Key Plan - N.T.S.



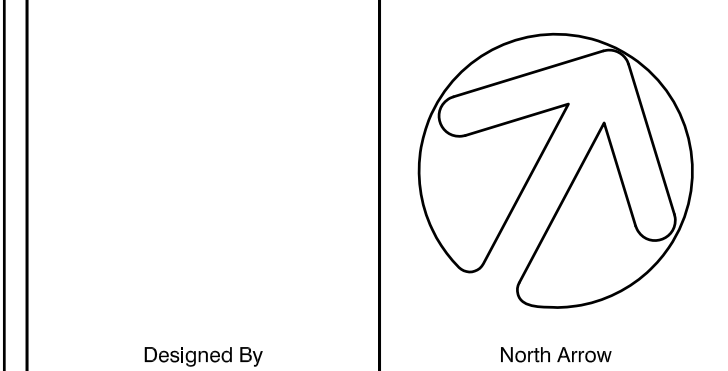
Legend

- PROPOSED SUBDRAINAGE GRADE (MBTW/RFLA) AT COLLECTOR PIPE
- PROPOSED SUBDRAINAGE GRADE (MBTW/RFLA) AT FLAT DRAIN
- 250mm Ø COLLECTOR DRAIN
- 150mm FIELD FLAT DRAIN
- PROPOSED SLOPE (SUBDRAINAGE) AT COLLECTOR PIPE
- PROPOSED SLOPE (SUBDRAINAGE) AT FLAT DRAIN
- PROPOSED HIGH POINT / LOW POINT
- PROPOSED CLEAN OUT



No	Date	Revisions	By
1.	03.26.2015	Issued for SLP/DP	JJ

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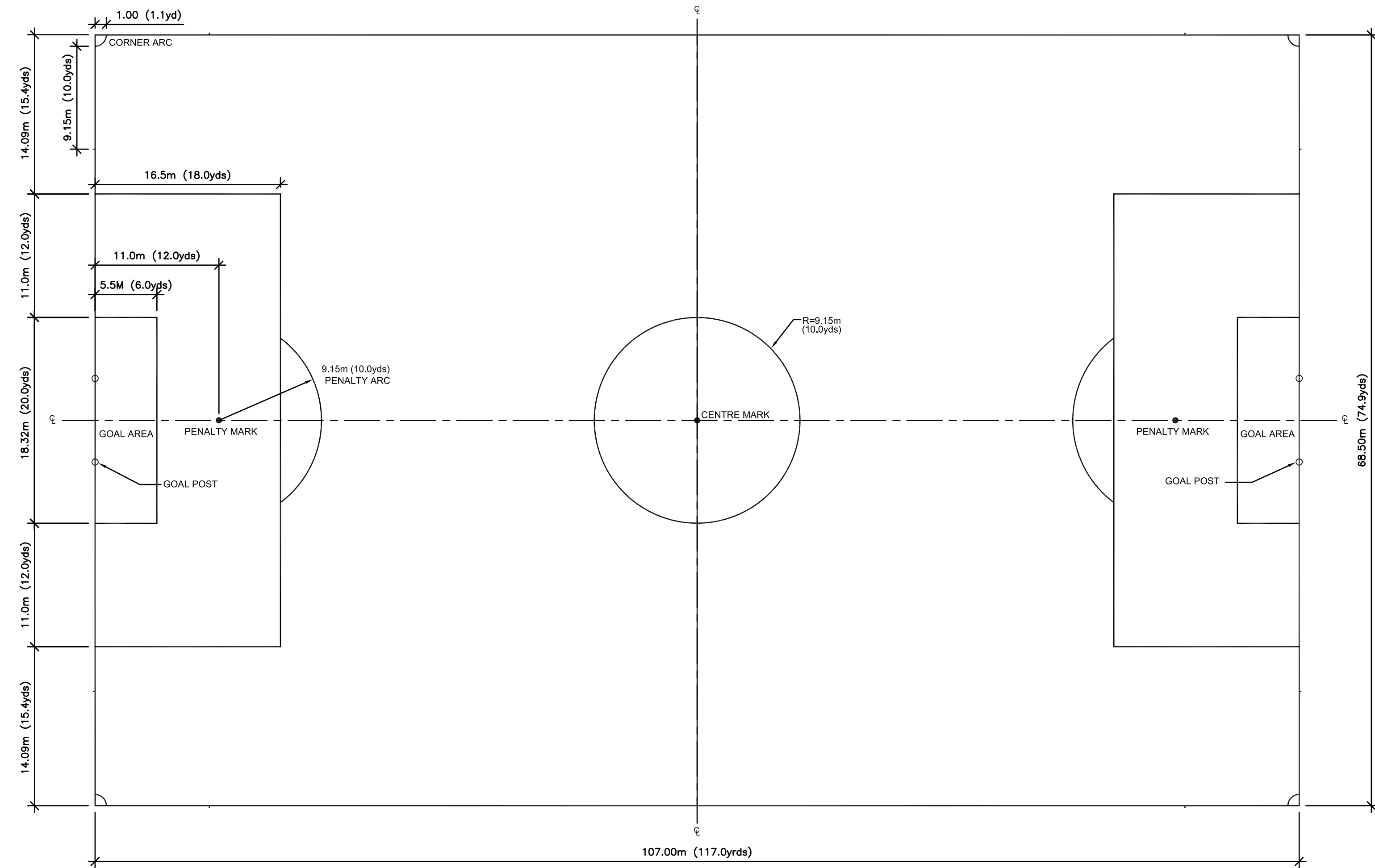
Designed By the mbtw group
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 LANDSCAPE ARCHITECT INC.

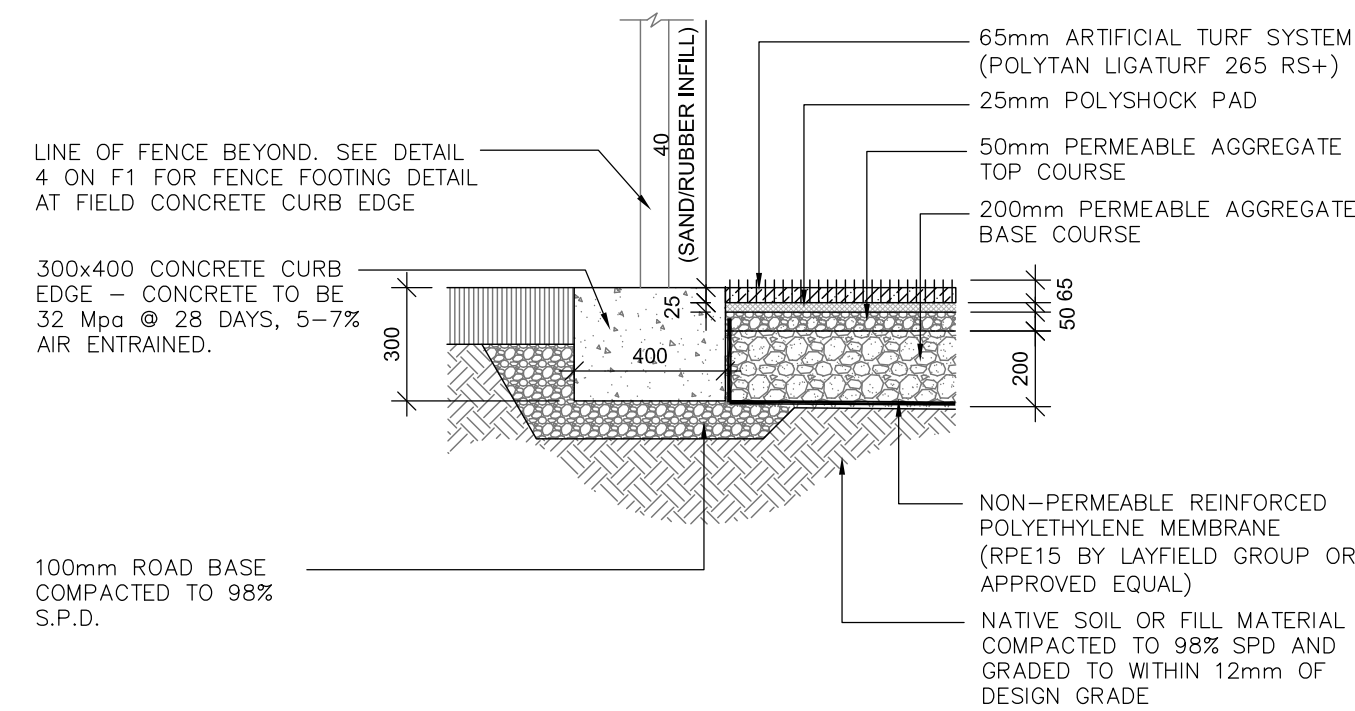
Project Name:
NSDC
 Natural & Synthetic Turf Fields
 Municipality: University of British Columbia
 Sheet Title:
SUB-DRAINAGE GRADING PLAN

Designed: JJ	Drawn: OL	Scale: 1:300	Drawing No.:
Date of Drawing: DECEMBER 2014	Job No.:	UPT 001	PLA-205

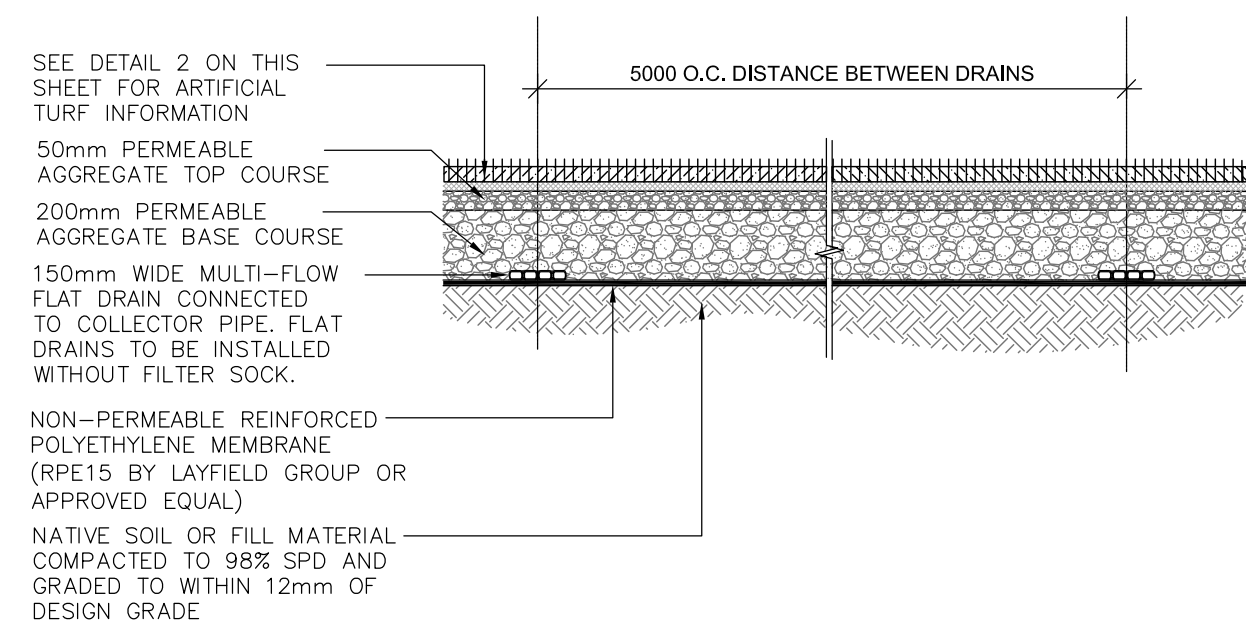
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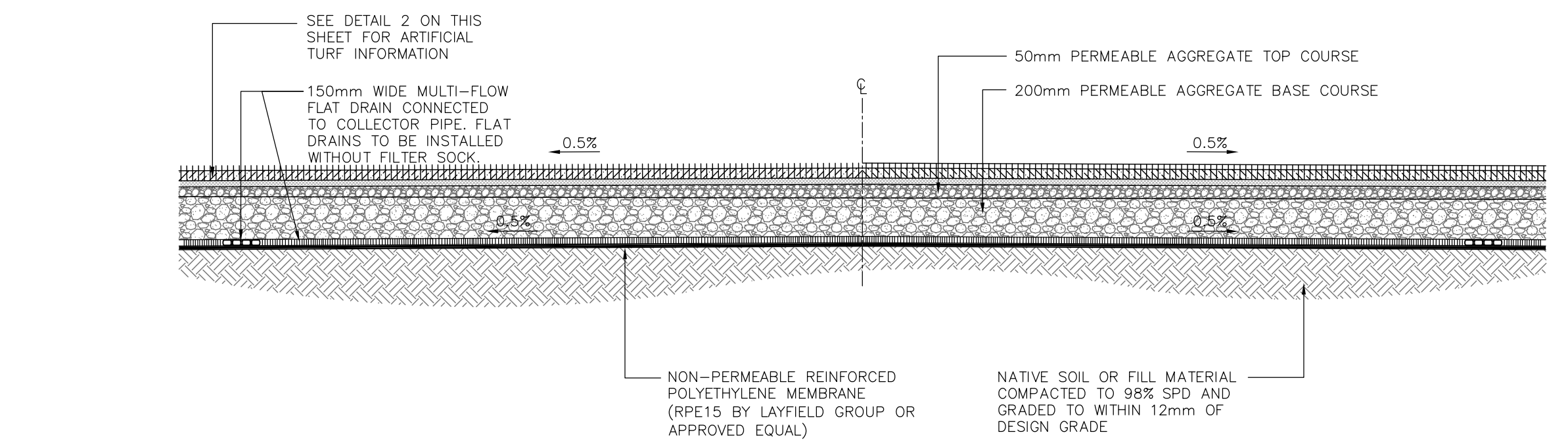
1 TYPICAL SOCCER FIELD LAYOUT 1:300



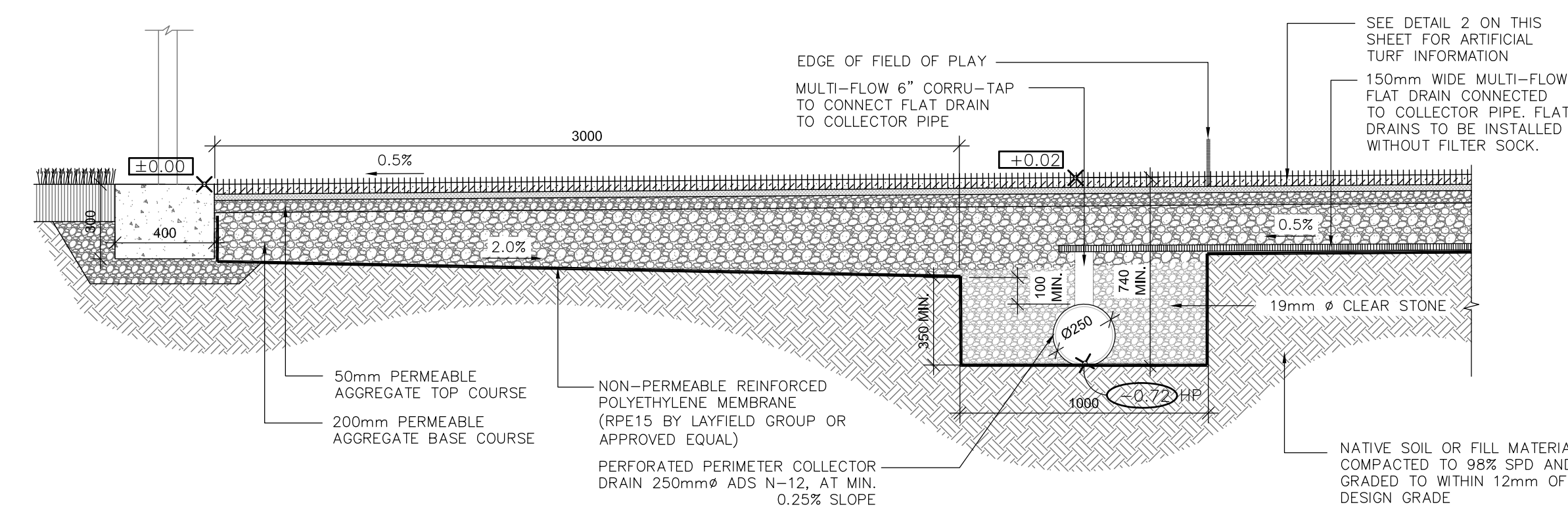
2 SYNTHETIC TURF FIELD TYPICAL CROSS SECTION AT PERIMETER CURB 1:20



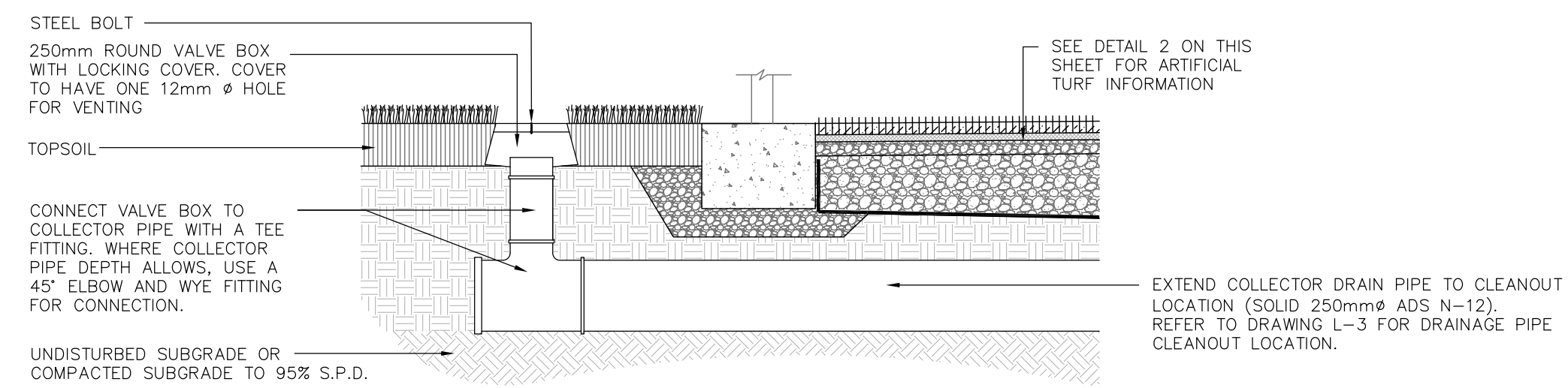
3 SYNTHETIC TURF FIELD TYPICAL CROSS SECTION AT FLAT DRAINS 1:20



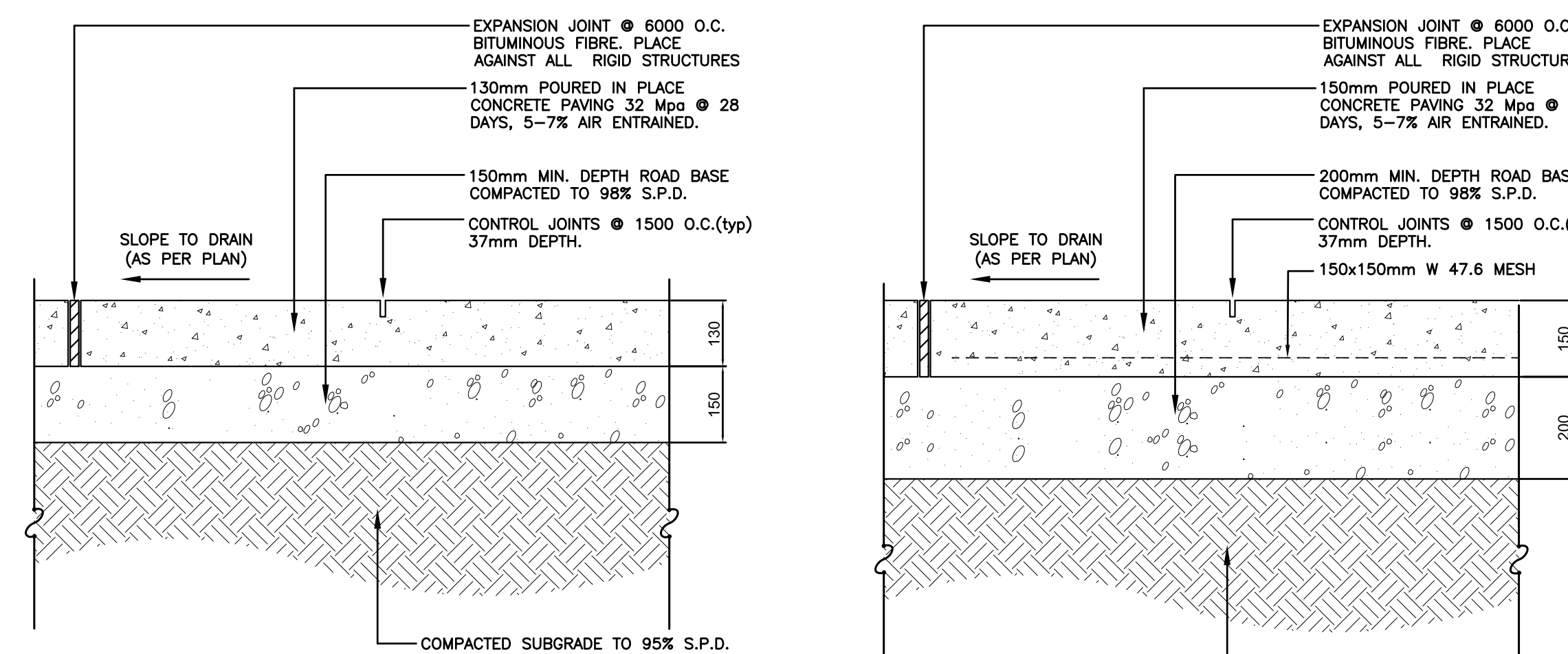
4 SYNTHETIC TURF FIELD TRANSVERSE CROSS SECTION 1:20



5 SYNTHETIC TURF FIELD TYPICAL CROSS SECTION AT PERIMETER/COLLECTOR PIPE 1:20

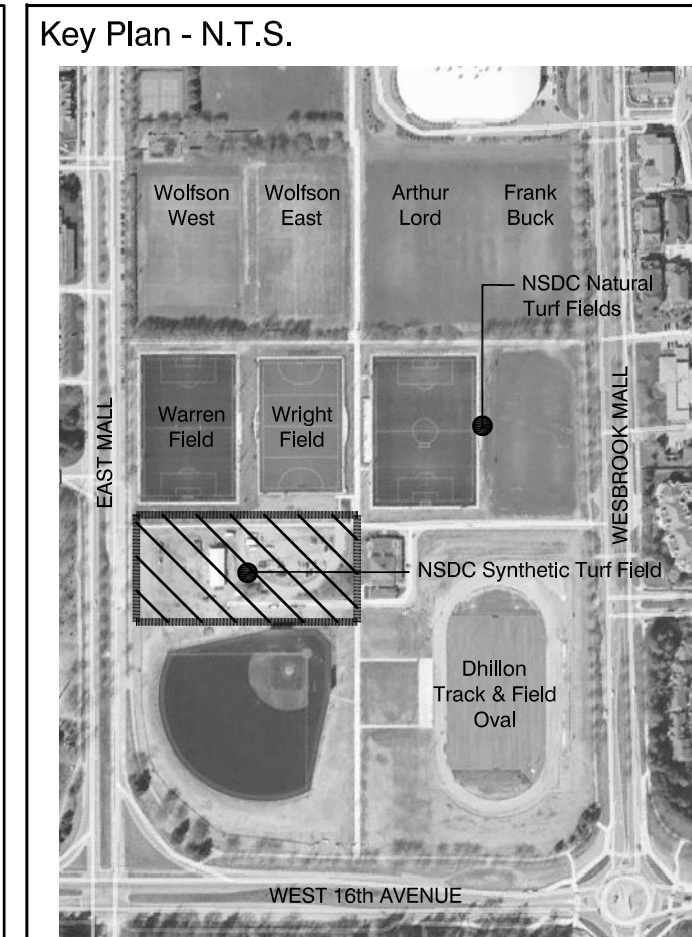


6 SYNTHETIC TURF FIELD DRAINAGE PIPE CLEANOUT (TYPICAL DETAIL) 1:20



GENERAL NOTES:
 1. SAW CUT CONTROL JOINTS TO A DEPTH OF 37mm IMMEDIATELY UPON CONCRETE SETTING.
 2. TROWELED CONTROL JOINTS, OR EXPANSION JOINTS, OR EDGES PROVIDE BRUSHED FINISH PERPENDICULAR TO PEDESTRIAN FLOW
 3. PROTECT ALL CONCRETE FROM DAMAGE AND VANDALISM UNTIL SET.
 4. ANY AREAS DAMAGED BY FOOTPRINTS, TIRES, OR WRITING IN CONCRETE SHALL BE BROKEN OUT AND REPLACED AT THE CONTRACTORS EXPENSE.

7 CONCRETE PAVING 1:20



Legend



No	Date	Revisions	By
1.	03.26.2015	Issued for SLP/DP	JJ

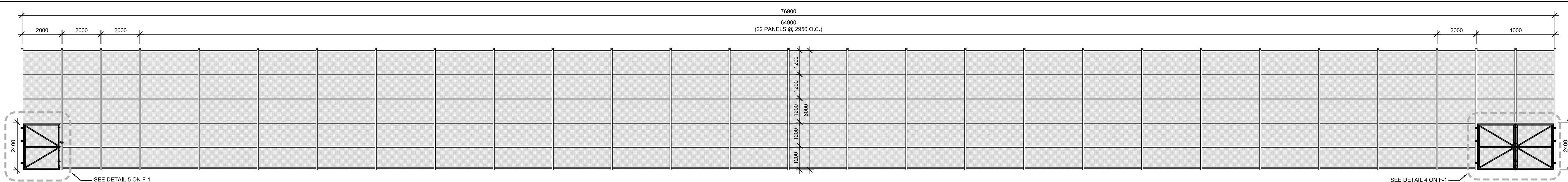
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Designed By: **the mbtw group**
 North Arrow

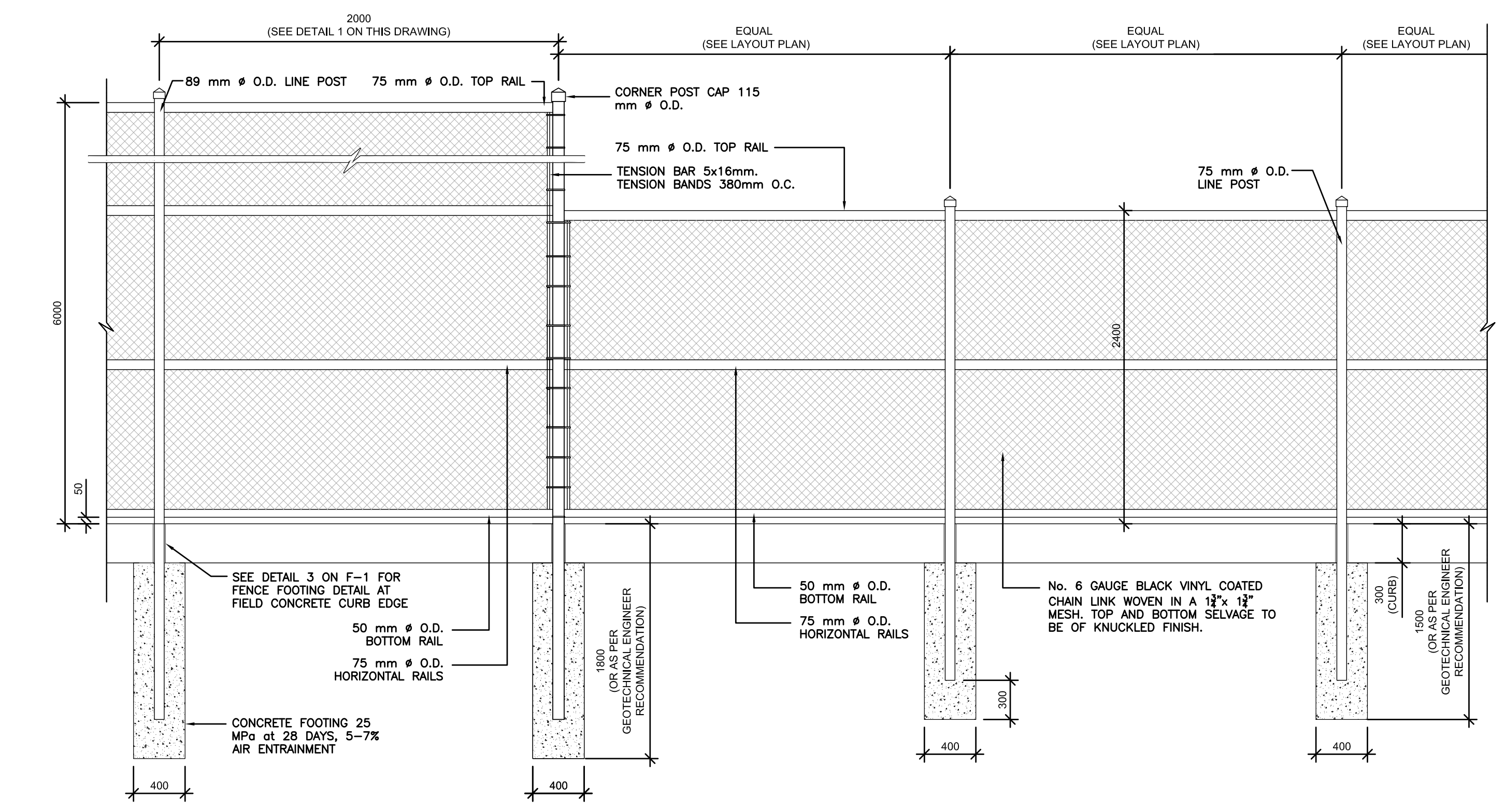
the mbtw group
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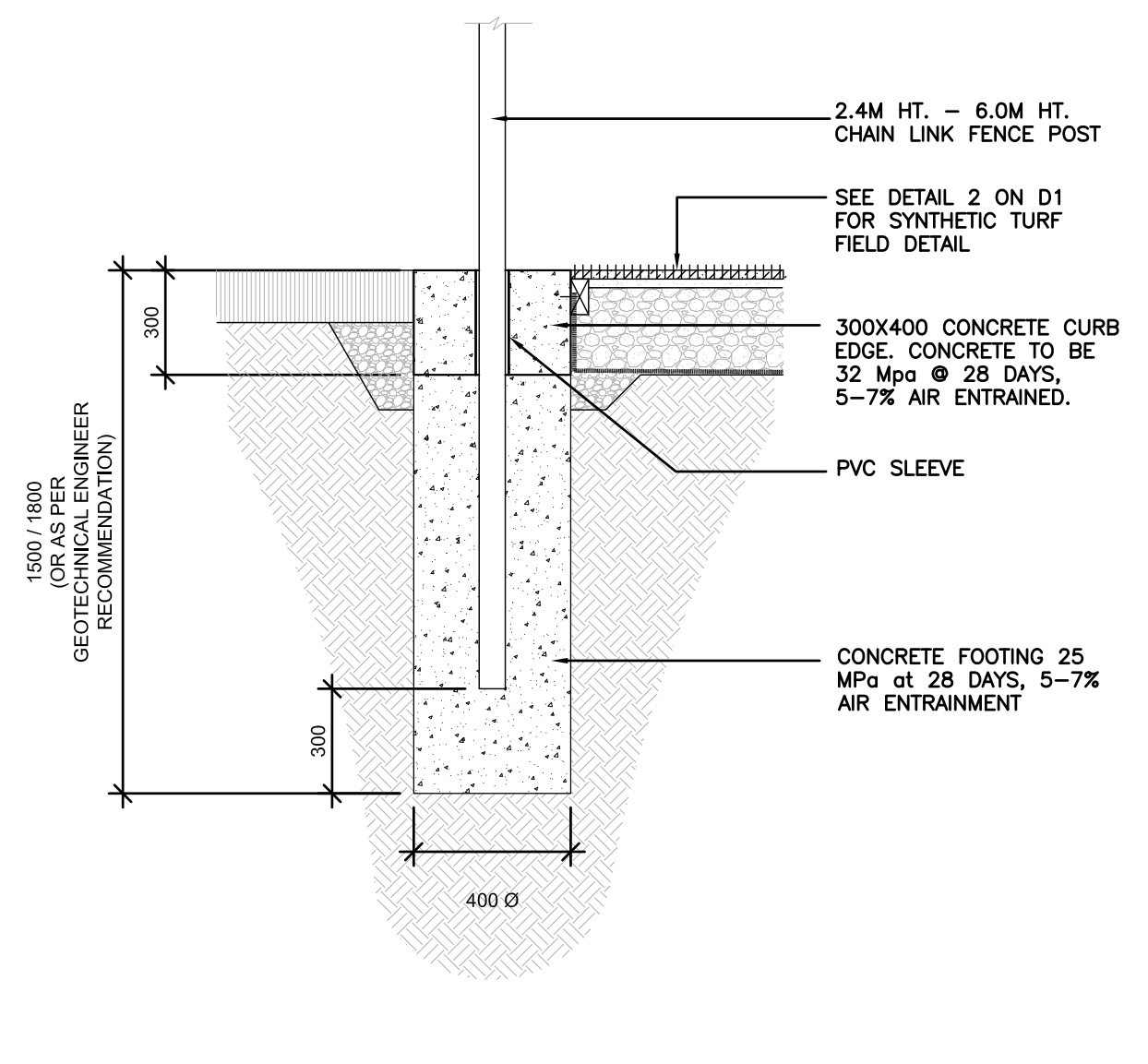
Project Name: NSDC Natural & Synthetic Turf Fields			
Municipality: University of British Columbia			
Sheet Title: FIELD OF PLAY DETAILS			
Designed: JJ	Drawn: OL	Scale: AS SHOWN	Drawing No.:
Date of Drawing: DECEMBER 2014	Job No.:	UPT 001	DET-207



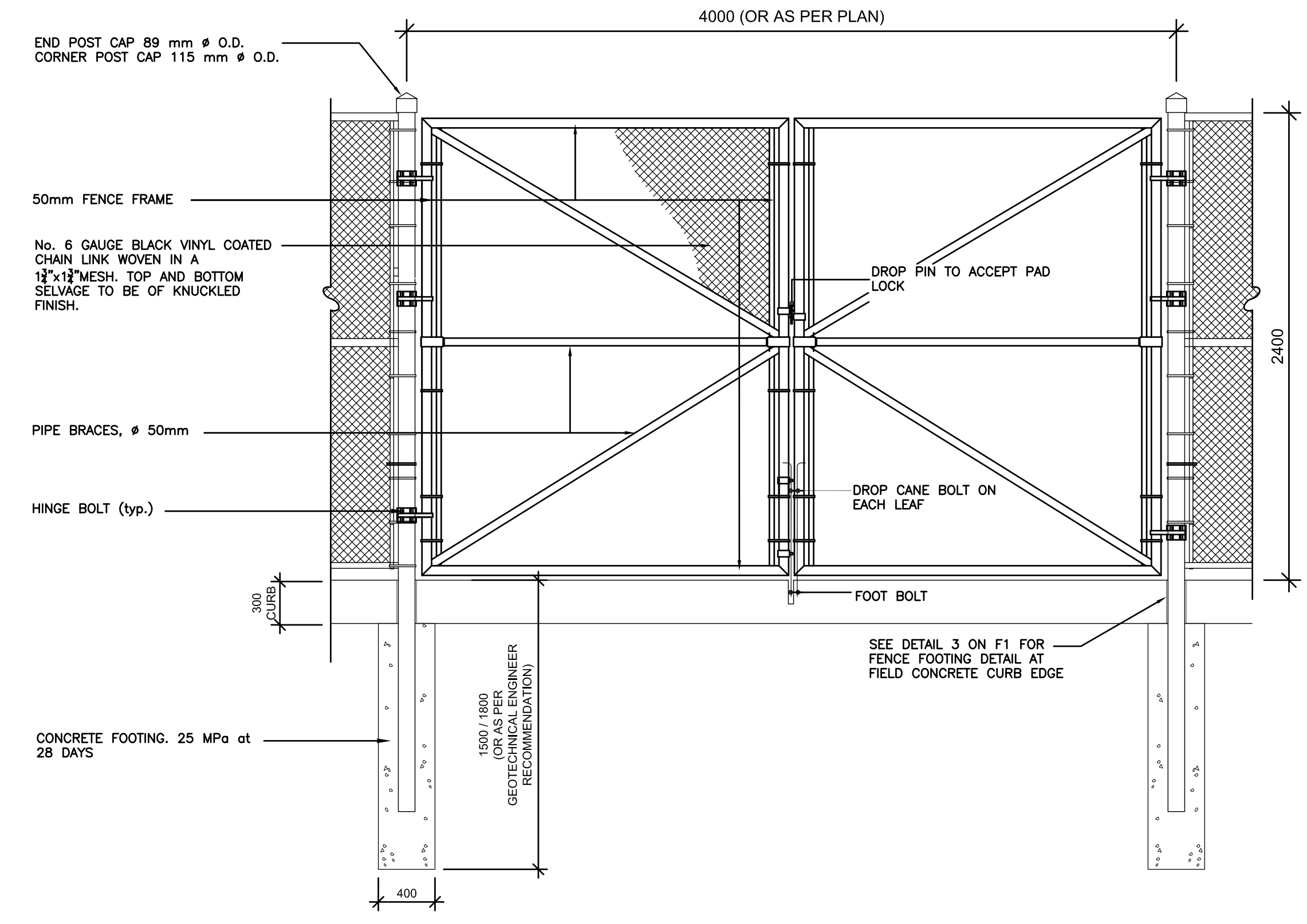
1 TYPICAL 6.0M HT. BLACK VINYL CHAIN LINK FENCE ELEVATION AT FIELD ENDS 1:100



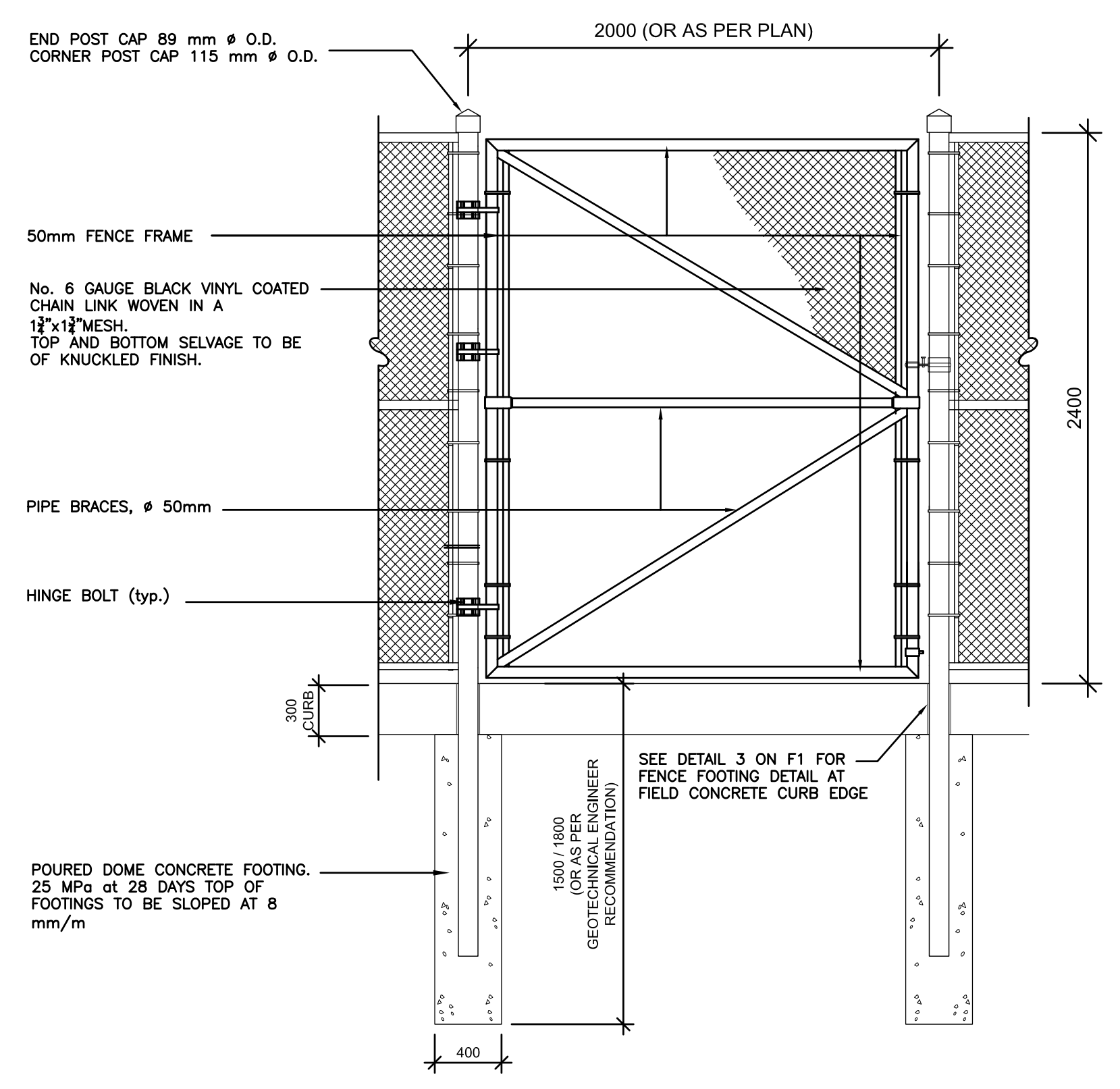
2 TYPICAL 2.4M / 6.0M BLACK VINYL CHAIN LINK FENCE N.T.S.



3 FENCE FOOTING TYPICAL DETAIL 1:20



4 TYPICAL 2.4M HT. BLACK VINYL CHAIN LINK DOUBLE GATE N.T.S.



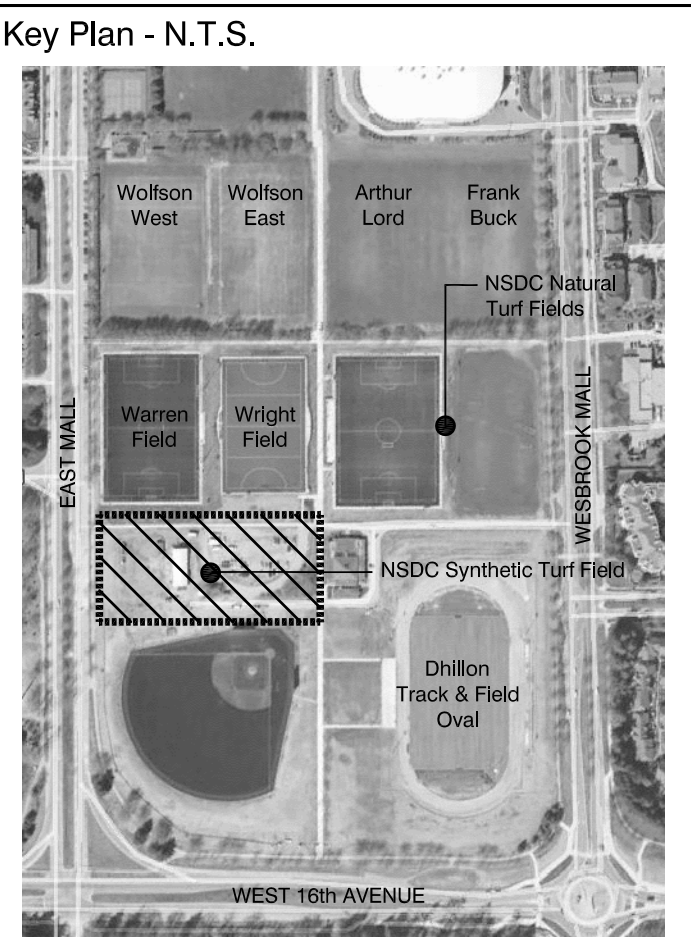
5 TYPICAL 2.4M HT. BLACK VINYL CHAIN LINK SINGLE GATE N.T.S.

GENERAL NOTES:

- SHOP DRAWINGS TO BE PROVIDED FOR ALL FENCES AND GATES.
- ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED
- ONLY SCHEDULE 40 GALVANIZED PIPES WILL BE ACCEPTED
- LINE POSTS SHALL BE SET AT ±3050mm MAX CENTRES UNLESS SPECIFIED OTHERWISE.
- ALL FENCE COMPONENTS TO BE BLACK VINYL COATED
- TIE WIRES TO BE 9 GAUGE GALVANIZED 100mm o.c.

WELDING NOTES:

- ALL FENCES SHALL BE ALL WELDED CONSTRUCTION. WELD ALL ENDS CONTINUOUSLY TO ADJOINING MEMBERS. GRIND ALL WELDS SMOOTH.
- COPE ALL POSTS TO ACCEPT TOP RAIL.
- COPE ALL MID BRACES AND BOTTOM RAILS TO FIT POSTS.



Legend

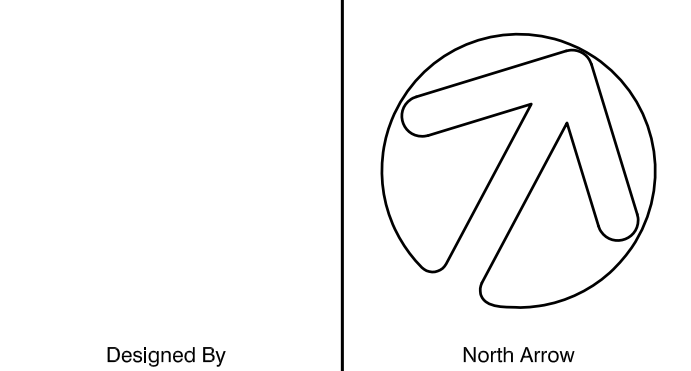
NOTES:

CONTRACTOR TO PROVIDE STRUCTURAL CERTIFICATION FOR FENCE, GATES AND FOOTERS.



No	Date	Revisions	By
1.	03.26.2015	Issued for SLP/DP	JJ

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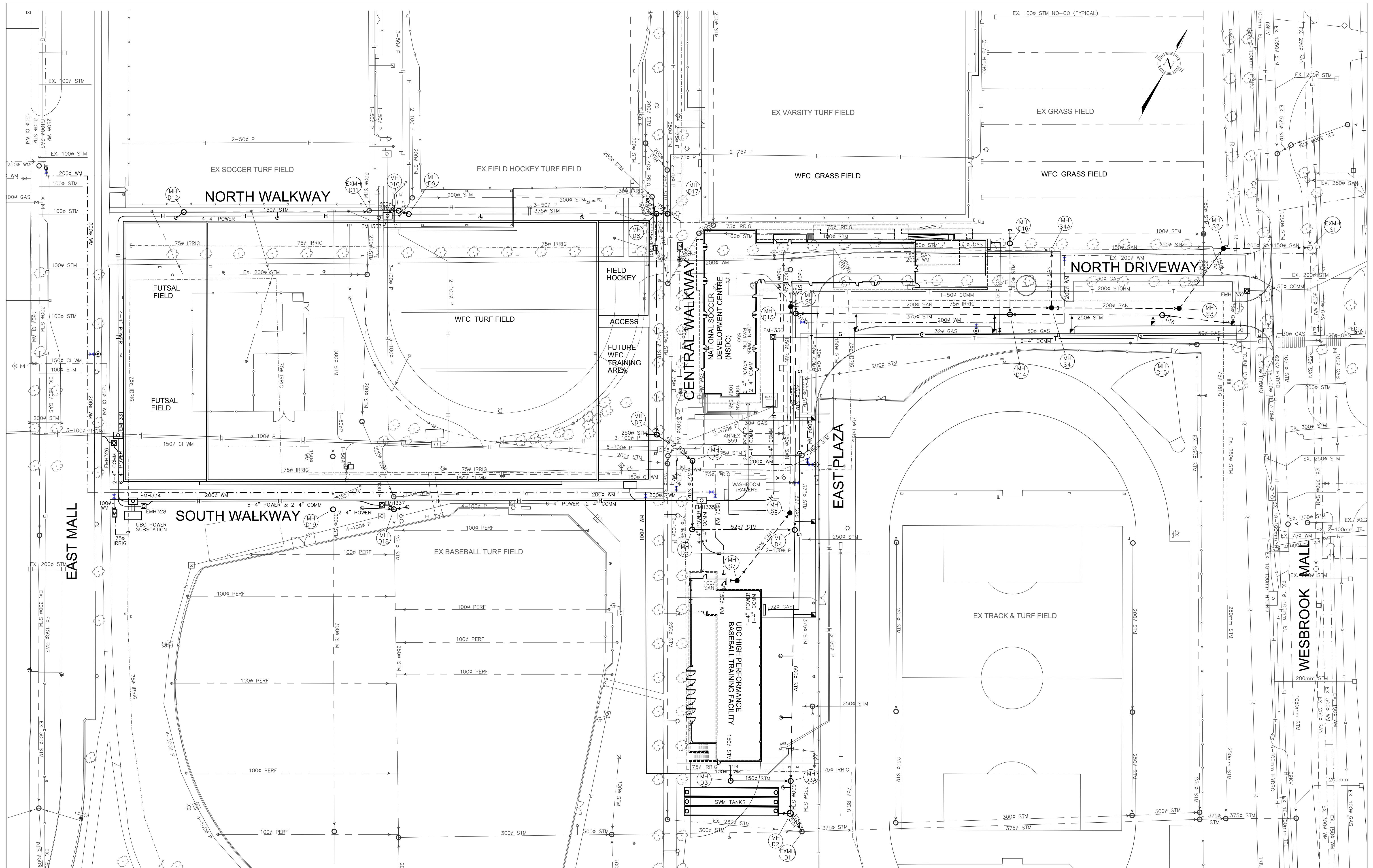


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RICHARD FINDLAY
 LANDSCAPE ARCHITECT INC.

Project Name: **NSDC Natural & Synthetic Turf Fields**
 Municipality: University of British Columbia
 Sheet Title: **FENCING DETAILS**


Designed: JJ	Drawn: OL	Scale: AS SHOWN	Drawing No.:
Date of Drawing: DECEMBER 2014	Job No.: UPT 001	DET-208	



No.	DESCRIPTION	MO/DAY/YR
6		
5		
4	SLP & DP SUBMISSION	03/26/2015
3	REVISED AS PER UBC REVIEW COMMENTS FOR BASEBALL	02/27/2015
2	IN SUPPORT OF BP FOR BASEBALL FACILITY	12/05/2014
1	IN SUPPORT OF DP FOR NSDC	11/05/2014

KAMPS ENGINEERING LIMITED

604-682-2020 kamps@rogers.com



UBC PROPERTIES TRUST

CLIENT **UBC PROPERTIES TRUST**

DRAWING TITLE **PROPOSED SITE SERVICING PLAN
ATHLETICS PRECINCT**

PROJECT TITLE **ATHLETICS PRECINCT**

DRAWN J.N. SCALE HORZ: 1:500 m

DESIGN M.K. DATE SEPT 2014

CHECKED

SEAL

PROJECT No.	8108
DRAWING No.	200
REV.	4

