

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS  
RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MASSACHUSETTS  
PREPARED FOR  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

DRAWING NO	SHEET NO	TITLE	DRAWING NO	SHEET NO	TITLE
G001	1 OF 55	COVER SHEET	C510	29 OF 55	DETAIL SHEET 10 OF 17
G002	2 OF 55	GENERAL NOTES SHEET	C511	30 OF 55	DETAIL SHEET 11 OF 17
XXXX	3 OF 55	PARTIAL PROPERTY SURVEY	C512	31 OF 55	DETAIL SHEET 12 OF 17
C001	4 OF 55	EXISTING CONDITIONS PLAN SHEET 1 OF 2	C513	32 OF 55	DETAIL SHEET 13 OF 17
C002	5 OF 55	EXISTING CONDITIONS PLAN SHEET 2 OF 2	C514	33 OF 55	DETAIL SHEET 14 OF 17
C003	6 OF 55	DEMOLITION AND EROSION CONTROL PLAN SHEET 1 OF 2	C515	34 OF 55	DETAIL SHEET 15 OF 17
C004	7 OF 55	DEMOLITION AND EROSION CONTROL PLAN SHEET 2 OF 2	C516	35 OF 55	DETAIL SHEET 16 OF 17
C101	8 OF 55	BASE BID LAYOUT AND MATERIALS PLAN SHEET 1 OF 3	C517	36 OF 55	DETAIL SHEET 17 OF 17
C102	9 OF 55	BASE BID LAYOUT AND MATERIALS PLAN SHEET 2 OF 3	BL-1	37 OF 55	BLEACHER DETAIL
C102A	10 OF 55	BASE BID LAYOUT AND MATERIALS PLAN SHEET 3 OF 3	BL-2	38 OF 55	BASE BID BLEACHER DETAIL SHEET 1 OF 2
C103	11 OF 55	ALTERNATE LAYOUT AND MATERIALS PLAN SHEET 1 OF 1	BL-3	39 OF 55	BASE BID BLEACHER DETAIL SHEET 2 OF 2
C201	12 OF 55	BASE BID GRADING AND DRAINAGE PLAN SHEET 1 OF 3	BL-4	40 OF 55	ALTERNATE BLEACHER DETAIL SHEET 1 OF 2
C202	13 OF 55	BASE BID GRADING AND DRAINAGE PLAN SHEET 2 OF 3	BL-5	41 OF 55	ALTERNATE BLEACHER DETAIL SHEET 2 OF 2
C202A	14 OF 55	BASE BID GRADING AND DRAINAGE PLAN SHEET 3 OF 3	PB-1	42 OF 55	PRESS BOX DETAIL SHEET 1 OF 4
C203	15 OF 55	ALTERNATE GRADING AND DRAINAGE PLAN SHEET 1 OF 1	PB-2	43 OF 55	PRESS BOX DETAIL SHEET 2 OF 4
C301	16 OF 55	UTILITY PLAN SHEET 1 OF 2	PB-3	44 OF 55	PRESS BOX DETAIL SHEET 3 OF 4
C301A	17 OF 55	UTILITY PLAN SHEET 2 OF 2	PB-4	45 OF 55	PRESS BOX DETAIL SHEET 4 OF 4
L101	18 OF 55	LANDSCAPE PLAN SHEET 1 OF 2	EWS	46 OF 55	EXISTING WATERSHED PLAN
L102	19 OF 55	LANDSCAPE PLAN SHEET 2 OF 2	PWS	47 OF 55	PROPOSED WATERSHED PLAN
C501	20 OF 55	DETAIL SHEET 1 OF 17	E000	48 OF 55	ELECTRICAL LEGEND
C502	21 OF 55	DETAIL SHEET 2 OF 17	E001	49 OF 55	POWER AND SYSTEMS SITE PLAN
C503	22 OF 55	DETAIL SHEET 3 OF 17	E002	50 OF 55	POWER AND SYSTEMS SITE PLAN PARKING
C504	23 OF 55	DETAIL SHEET 4 OF 17	E201	51 OF 55	ELECTRICAL SPORTS LIGHTING DETAILS
C505	24 OF 55	DETAIL SHEET 5 OF 17	E202	52 OF 55	ELECTRICAL DETAILS
C506	25 OF 55	DETAIL SHEET 6 OF 17	E300	53 OF 55	ELECTRICAL SCHEDULES
C507	26 OF 55	DETAIL SHEET 7 OF 17	A101	54 OF 55	FLOOR PLAN
C508	27 OF 55	DETAIL SHEET 8 OF 17	A201	55 OF 55	ELEVATIONS & ENLARGED ELEVATION
C509	28 OF 55	DETAIL SHEET 9 OF 17			



SITE MAP  
1" = 100'



LOCATION MAP  
1" = 500'

PLANNING BOARD



Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com  
Boston   Baltimore   Orlando   Hartford   Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

PERMIT SET

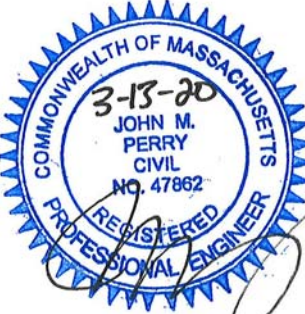
PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527  
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527


NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_G001	
DESIGNED BY		KFR/DFN/JMP/MJL	
DRAWN BY		KFR/DFN	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		N.T.S.	

GRAPHIC SCALE

SHEET TITLE

COVER  
SHEET

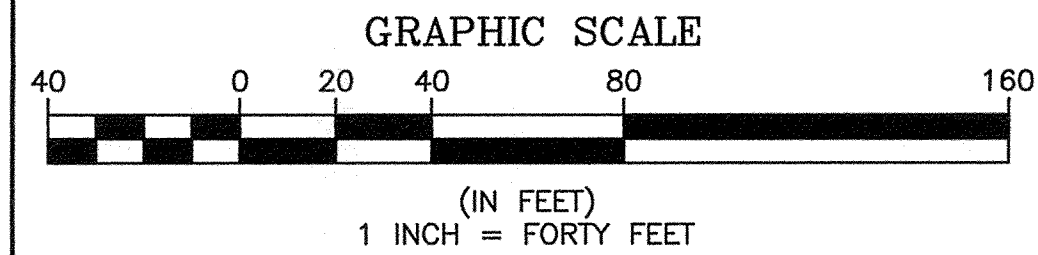
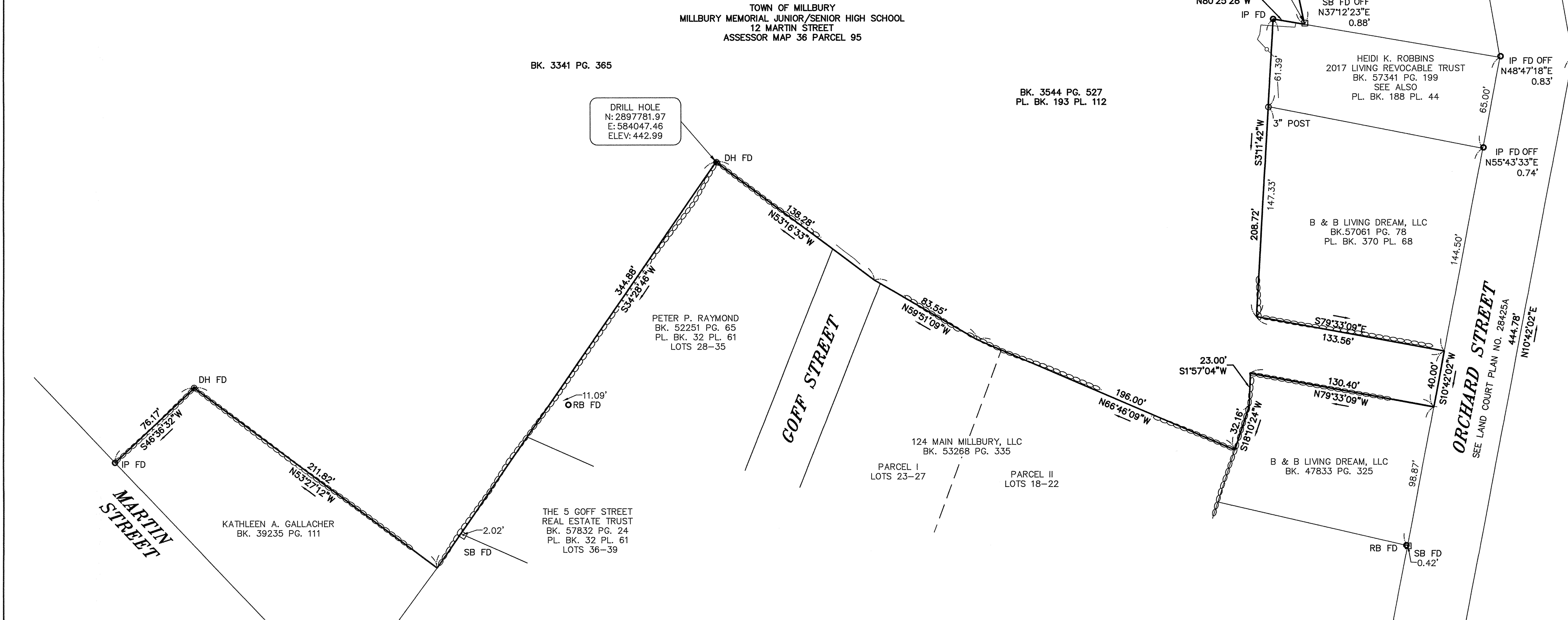
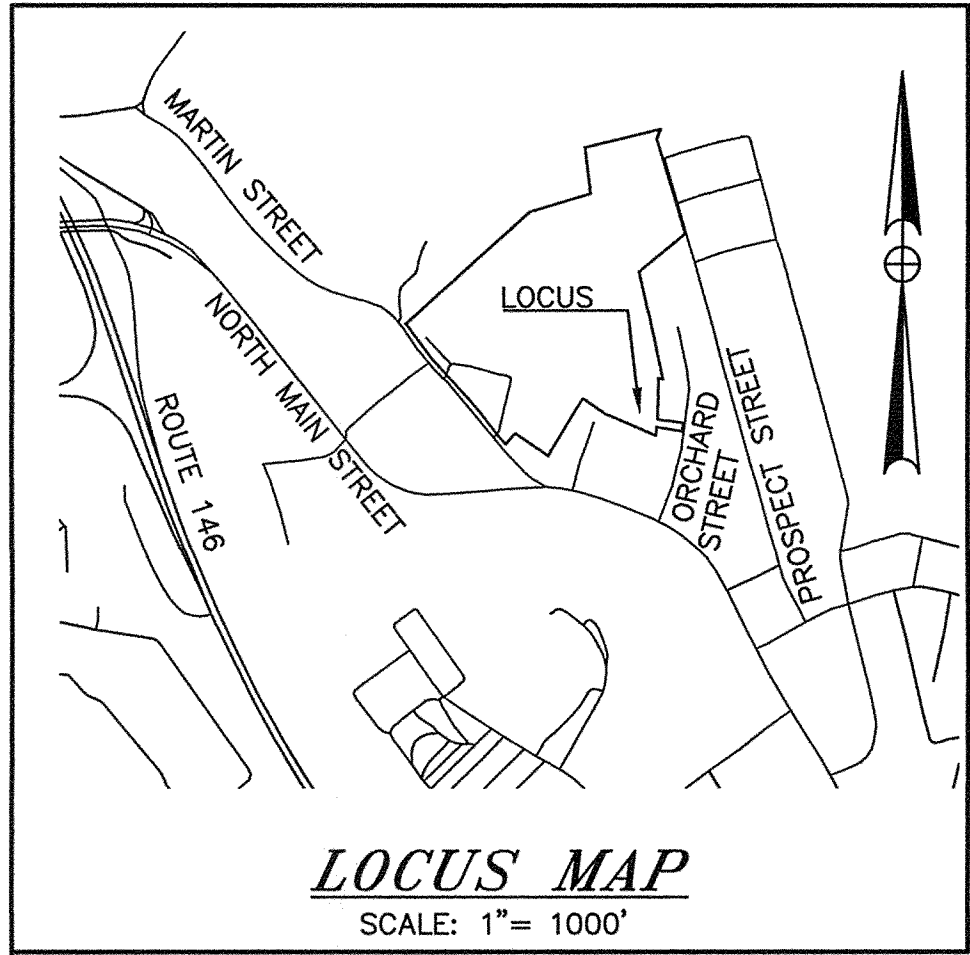


DRAWING NO.  
G001  
1 OF 55









LEGEND

- FD FOUND
- IP IRON PIPE
- RB REINFORCING BAR
- SB STONE BOUND
- DH DRILL HOLE

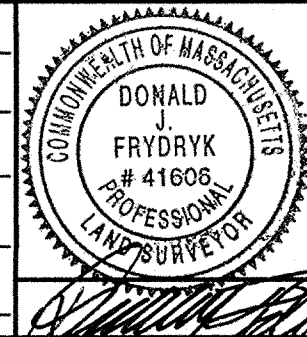
- NOTES:
- OWNER OF RECORD: TOWN OF MILLBURY
  - DEED REFERENCES AS SHOWN.
  - PLAN REFERENCES AS SHOWN.
  - LAND IS ZONED R1 - RESIDENTIAL 1.
  - THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO ANY RESTRICTIONS AND ENCUMBRANCES THAT SUCH A REPORT MAY REVEAL.
  - HORIZONTAL DATUM IS BASED ON MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, VERTICAL DATUM IS NAVD88, BOTH ESTABLISHED BY GPS AS PROVIDED BY GALE ASSOCIATES, INC. ON 03/05/2020.

NO.	DATE	BY	REVISIONS
1	3/06/2020	KJM	TRANSLATE TO MASSACHUSETTS STATE PLANE COORDINATES

**SHERMAN & FRYDRYK, LLC**  
*Land Surveying and Engineering*  
3 Converse Street, Suite 203  
Palmer, MA 01069



FIELD WORK: JGG/KRP  
COMPS: KJM  
DRAFTING: KJM  
CHECKED: TRF  
APPROVED: DJF



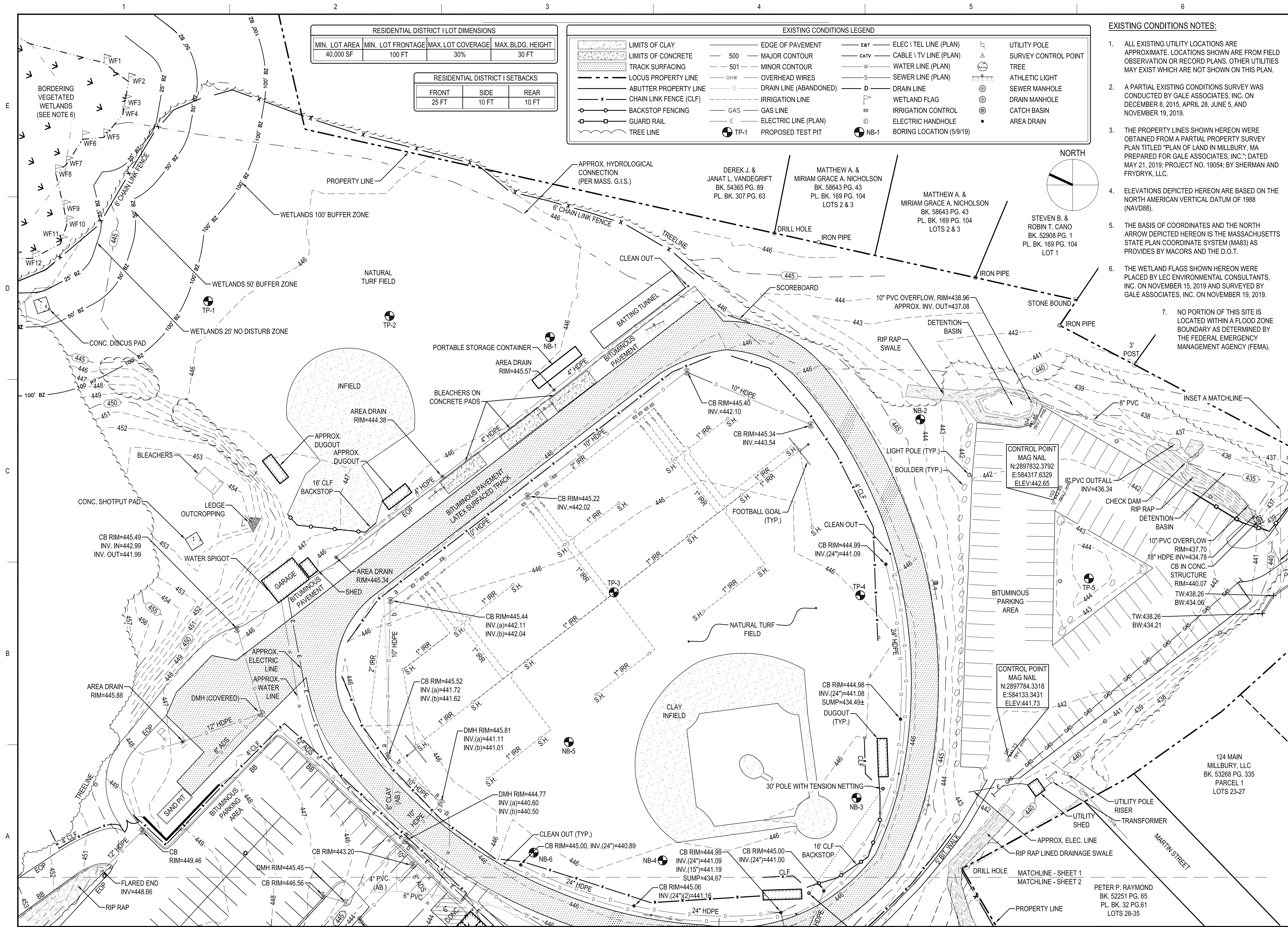
SCALE:  
HORZ: 1"=40'  
VERT: N/A  
DATE: 05/21/2019

**PARTIAL PROPERTY SURVEY**  
  
**MARTIN STREET ~ ORCHARD STREET**

**PLAN OF LAND IN  
MILLBURY, MA  
PREPARED FOR  
GALE ASSOCIATES, INC.**

**PROJECT NUMBER**  
19054  
**SHEET NUMBER**  
1 OF 1





RESIDENTIAL DISTRICT I LOT DIMENSIONS			
MIN. LOT AREA	MIN. LOT FRONTAGE	MAX. LOT COVERAGE	MAX. BLDG. HEIGHT
40,000 SF	100 FT	30%	30 FT

RESIDENTIAL DISTRICT I SETBACKS		
FRONT	SIDE	REAR
25 FT	10 FT	10 FT

EXISTING CONDITIONS LEGEND			
LIMITS OF CLAY	EDGE OF PAVEMENT	E&T	ELEC \ TEL LINE (PLAN)
LIMITS OF CONCRETE	MAJOR CONTOUR	C&TV	CABLE \ TV LINE (PLAN)
TRACK SURFACING	500	W	WATER LINE (PLAN)
LOCUS PROPERTY LINE	501	S	SEWER LINE (PLAN)
ABUTTER PROPERTY LINE	OHW	D	DRAIN LINE
CHAIN LINK FENCE (CLF)	DRAIN LINE (ABANDONED)	WETLAND FLAG	
BACKSTOP FENCING	IRRIGATION LINE	IRRIGATION CONTROL	
GUARD RAIL	GAS	E	ELECTRIC LINE (PLAN)
TREE LINE	GAS LINE	TP-1	PROPOSED TEST PIT
	ELECTRIC LINE (PLAN)	NB-1	BORING LOCATION (5/9/19)

- EXISTING CONDITIONS NOTES:**
- ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE. LOCATIONS SHOWN ARE FROM FIELD OBSERVATION OR RECORD PLANS. OTHER UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THIS PLAN.
  - A PARTIAL EXISTING CONDITIONS SURVEY WAS CONDUCTED BY GALE ASSOCIATES, INC. ON DECEMBER 8, 2015, APRIL 28, JUNE 5, AND NOVEMBER 19, 2019.
  - THE PROPERTY LINES SHOWN HEREON WERE OBTAINED FROM A PARTIAL PROPERTY SURVEY PLAN TITLED "PLAN OF LAND IN MILLBURY, MA PREPARED FOR GALE ASSOCIATES, INC.," DATED MAY 21, 2019; PROJECT NO. 19054; BY SHERMAN AND FRYDRYK, LLC.
  - ELEVATIONS DEPICTED HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  - THE BASIS OF COORDINATES AND THE NORTH ARROW DEPICTED HEREON IS THE MASSACHUSETTS STATE PLAN COORDINATE SYSTEM (MAB3) AS PROVIDES BY MACORS AND THE D.O.T.
  - THE WETLAND FLAGS SHOWN HEREON WERE PLACED BY LEC ENVIRONMENTAL CONSULTANTS, INC. ON NOVEMBER 15, 2019 AND SURVEYED BY GALE ASSOCIATES, INC. ON NOVEMBER 19, 2019.
  - NO PORTION OF THIS SITE IS LOCATED WITHIN A FLOOD ZONE BOUNDARY AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).

**GALE**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.galeinc.com  
Boston Baltimore Orlando Hartford Bedford

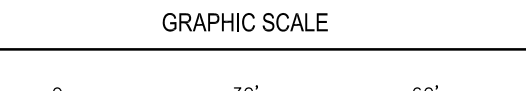
This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

**PERMIT SET**

**PROJECT**  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

**OWNER**  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C001		
DESIGNED BY	KFR		
DRAWN BY	KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		



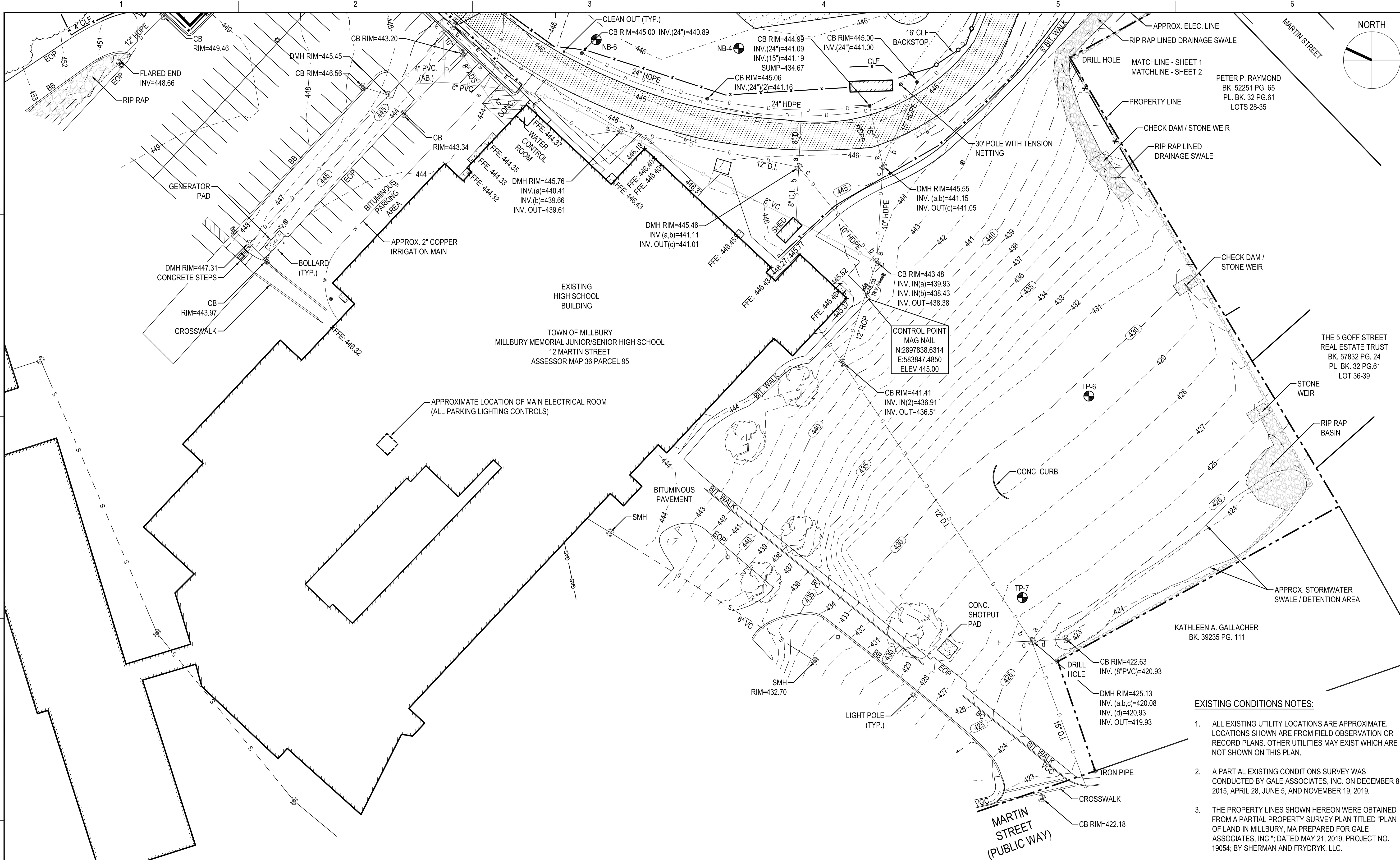
**EXISTING CONDITIONS PLAN  
SHEET 1 OF 2**

**DRAWING NO.**  
C001

**SEAL**  
COMMONWEALTH OF MASSACHUSETTS  
3-15-20  
JOHN M. FERRY  
REGISTERED PROFESSIONAL ENGINEER  
No. 47989



F:\16383\plots\07-Permit Drawings\03-Resubmission\16383\_C001.dwg, 3/12/2020 12:37:27 PM, dfr, Adobe PDF



RESIDENTIAL DISTRICT I SETBACKS			
FRONT	SIDE	REAR	
25 FT	10 FT	10 FT	

RESIDENTIAL DISTRICT I LOT DIMENSIONS			
MIN. LOT AREA	MIN. LOT FRONTAGE	MAX. LOT COVERAGE	MAX. BLDG. HEIGHT
40,000 SF	100 FT	30%	30 FT

EXISTING CONDITIONS LEGEND					
	LIMITS OF CLAY		EDGE OF PAVEMENT		ELEC \ TEL LINE (PLAN)
	LIMITS OF CONCRETE		500		CABLE \ TV LINE (PLAN)
	TRACK SURFACING		501		WATER LINE (PLAN)
	LOCUS PROPERTY LINE		OVERHEAD WIRES		SEWER LINE (PLAN)
	ABUTTER PROPERTY LINE		DRAIN LINE (ABANDONED)		DRAIN LINE
	CHAIN LINK FENCE (CLF)		IRRIGATION LINE		WETLAND FLAG
	BACKSTOP FENCING		GAS LINE		IRRIGATION CONTROL
	GUARD RAIL		ELECTRIC LINE (PLAN)		ELECTRIC HANDHOLE
	TREE LINE		PROPOSED TEST PIT		BORING LOCATION (5/9/19)
			UTILITY POLE		SURVEY CONTROL POINT
			TREE		ATHLETIC LIGHT
			SEWER MANHOLE		DRAIN MANHOLE
			CATCH BASIN		AREA DRAIN

EXISTING CONDITIONS NOTES:

- ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE. LOCATIONS SHOWN ARE FROM FIELD OBSERVATION OR RECORD PLANS. OTHER UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THIS PLAN.
- A PARTIAL EXISTING CONDITIONS SURVEY WAS CONDUCTED BY GALE ASSOCIATES, INC. ON DECEMBER 8, 2015, APRIL 28, JUNE 5, AND NOVEMBER 19, 2019.
- THE PROPERTY LINES SHOWN HEREON WERE OBTAINED FROM A PARTIAL PROPERTY SURVEY PLAN TITLED "PLAN OF LAND IN MILLBURY, MA PREPARED FOR GALE ASSOCIATES, INC.," DATED MAY 21, 2019; PROJECT NO. 19054; BY SHERMAN AND FRYDRYK, LLC.
- ELEVATIONS DEPICTED HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- THE BASIS OF COORDINATES AND THE NORTH ARROW DEPICTED HEREON IS THE MASSACHUSETTS STATE PLAN COORDINATE SYSTEM (MA83) AS PROVIDES BY MACORS AND THE D.O.T.
- THE WETLAND FLAGS SHOWN HEREON WERE PLACED BY LEC ENVIRONMENTAL CONSULTANTS, INC. ON NOVEMBER 15, 2019 AND SURVEYED BY GALE ASSOCIATES, INC. ON NOVEMBER 19, 2019.
- NO PORTION OF THIS SITE IS LOCATED WITHIN A FLOOD ZONE BOUNDARY AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).

Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

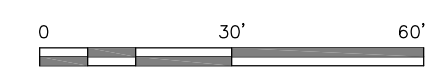
PERMIT SET

PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C001		
DESIGNED BY	KFR		
DRAWN BY	KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		

GRAPHIC SCALE



SHEET TITLE

EXISTING  
CONDITIONS PLAN  
SHEET 2 OF 2

DRAWING NO.  
C002

5 OF 55

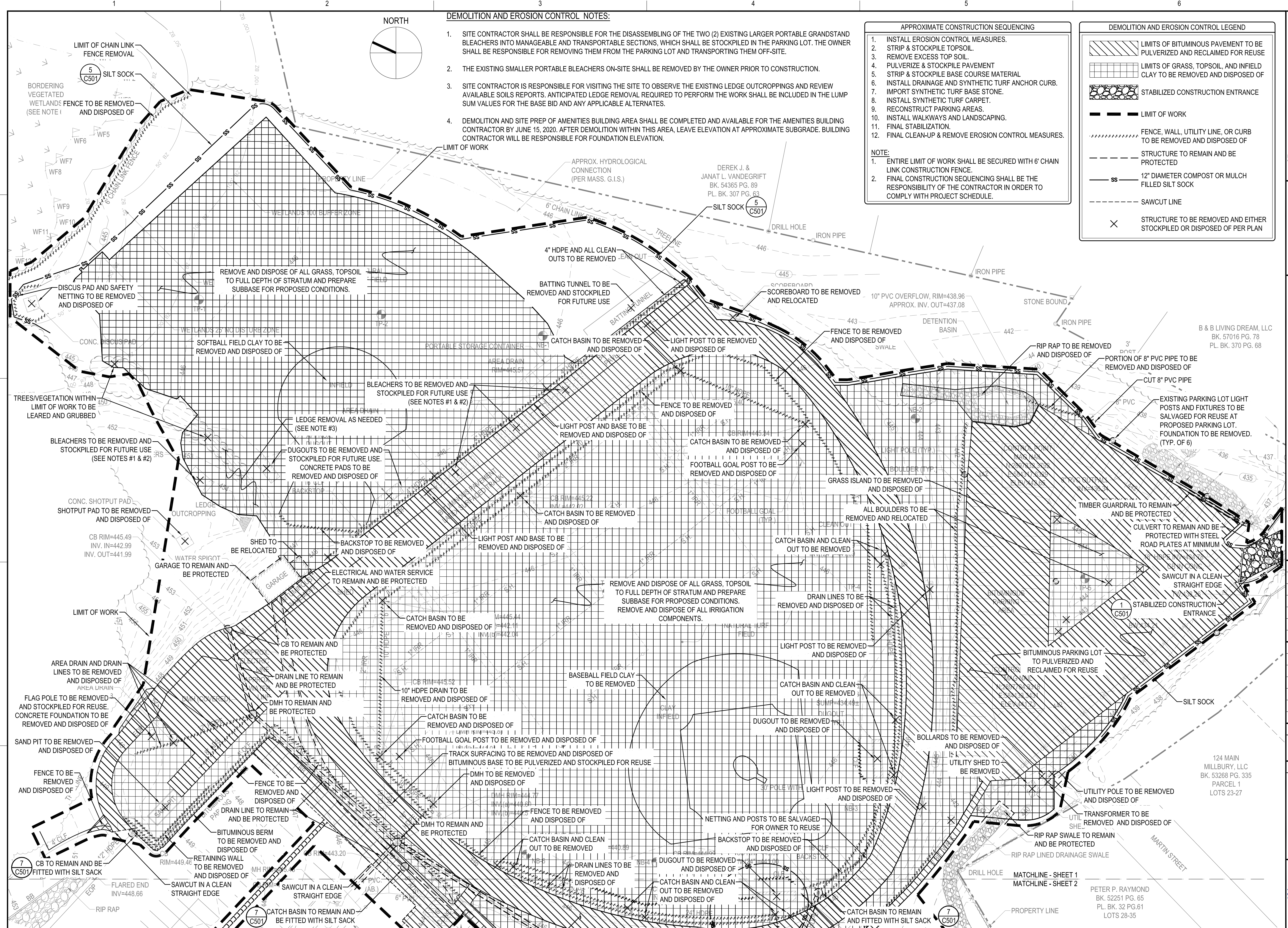


DEMOLITION AND EROSION CONTROL NOTES:

1. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISASSEMBLING OF THE TWO (2) EXISTING LARGER PORTABLE GRANDSTAND BLEACHERS INTO MANAGEABLE AND TRANSPORTABLE SECTIONS, WHICH SHALL BE STOCKPILED IN THE PARKING LOT. THE OWNER SHALL BE RESPONSIBLE FOR REMOVING THEM FROM THE PARKING LOT AND TRANSPORTING THEM OFF-SITE.
2. THE EXISTING SMALLER PORTABLE BLEACHERS ON-SITE SHALL BE REMOVED BY THE OWNER PRIOR TO CONSTRUCTION.
3. SITE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE TO OBSERVE THE EXISTING LEDGE OUTCROPPINGS AND REVIEW AVAILABLE SOILS REPORTS. ANTICIPATED LEDGE REMOVAL REQUIRED TO PERFORM THE WORK SHALL BE INCLUDED IN THE LUMP SUM VALUES FOR THE BASE BID AND ANY APPLICABLE ALTERNATES.
4. DEMOLITION AND SITE PREP OF AMENITIES BUILDING AREA SHALL BE COMPLETED AND AVAILABLE FOR THE AMENITIES BUILDING CONTRACTOR BY JUNE 15, 2020. AFTER DEMOLITION WITHIN THIS AREA, LEAVE ELEVATION AT APPROXIMATE SUBGRADE. BUILDING CONTRACTOR WILL BE RESPONSIBLE FOR FOUNDATION ELEVATION.

- APPROXIMATE CONSTRUCTION SEQUENCING
1. INSTALL EROSION CONTROL MEASURES.
  2. STRIP & STOCKPILE TOPSOIL.
  3. REMOVE EXCESS TOP SOIL.
  4. PULVERIZE & STOCKPILE PAVEMENT
  5. STRIP & STOCKPILE BASE COURSE MATERIAL
  6. INSTALL DRAINAGE AND SYNTHETIC TURF ANCHOR CURB.
  7. IMPORT SYNTHETIC TURF BASE STONE.
  8. INSTALL SYNTHETIC TURF CARPET.
  9. RECONSTRUCT PARKING AREAS.
  10. INSTALL WALKWAYS AND LANDSCAPING.
  11. FINAL STABILIZATION.
  12. FINAL CLEAN-UP & REMOVE EROSION CONTROL MEASURES.
- NOTE:
1. ENTIRE LIMIT OF WORK SHALL BE SECURED WITH 6" CHAIN LINK CONSTRUCTION FENCE.
  2. FINAL CONSTRUCTION SEQUENCING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN ORDER TO COMPLY WITH PROJECT SCHEDULE.

- DEMOLITION AND EROSION CONTROL LEGEND
- LIMITS OF BITUMINOUS PAVEMENT TO BE PULVERIZED AND RECLAIMED FOR REUSE
  - LIMITS OF GRASS, TOPSOIL, AND INFELD CLAY TO BE REMOVED AND DISPOSED OF
  - STABILIZED CONSTRUCTION ENTRANCE
  - LIMIT OF WORK
  - FENCE, WALL, UTILITY LINE, OR CURB TO BE REMOVED AND DISPOSED OF
  - STRUCTURE TO REMAIN AND BE PROTECTED
  - 12" DIAMETER COMPOST OR MULCH FILLED SILT SOCK
  - SAWCUT LINE
  - STRUCTURE TO BE REMOVED AND EITHER STOCKPILED OR DISPOSED OF PER PLAN



Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.galnco.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

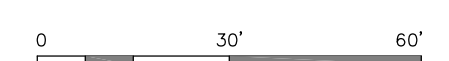
PERMIT SET

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C003		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		

GRAPHIC SCALE



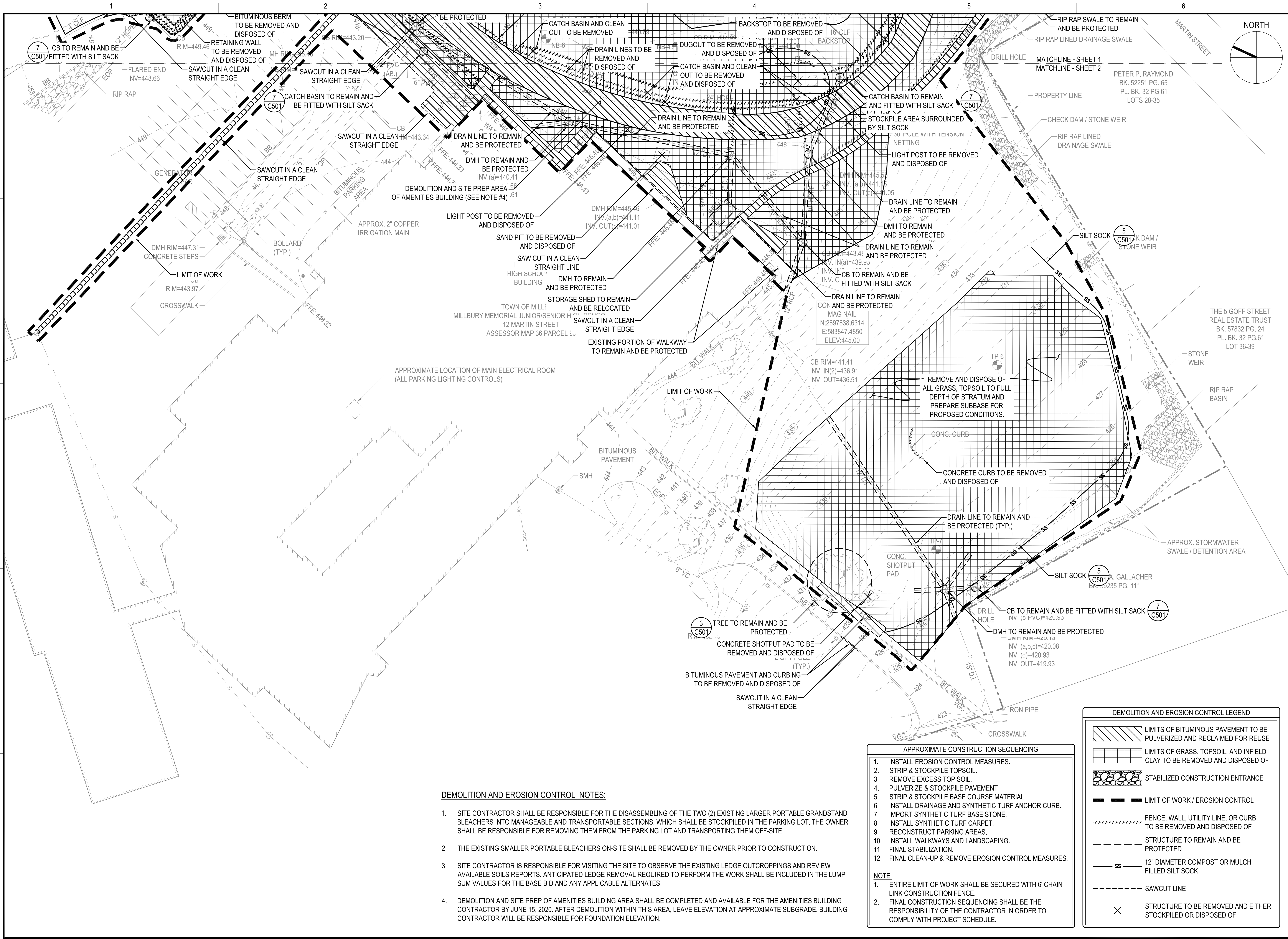
SHEET TITLE

DEMOLITION AND  
EROSION CONTROL PLAN  
SHEET 1 OF 2



DRAWING NO.  
C003  
OF 55





**DEMOLITION AND EROSION CONTROL NOTES:**

- SITE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISASSEMBLING OF THE TWO (2) EXISTING LARGER PORTABLE GRANDSTAND BLEACHERS INTO MANAGEABLE AND TRANSPORTABLE SECTIONS, WHICH SHALL BE STOCKPILED IN THE PARKING LOT. THE OWNER SHALL BE RESPONSIBLE FOR REMOVING THEM FROM THE PARKING LOT AND TRANSPORTING THEM OFF-SITE.
- THE EXISTING SMALLER PORTABLE BLEACHERS ON-SITE SHALL BE REMOVED BY THE OWNER PRIOR TO CONSTRUCTION.
- SITE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE TO OBSERVE THE EXISTING LEDGE OUTCROPPINGS AND REVIEW AVAILABLE SOILS REPORTS. ANTICIPATED LEDGE REMOVAL REQUIRED TO PERFORM THE WORK SHALL BE INCLUDED IN THE LUMP SUM VALUES FOR THE BASE BID AND ANY APPLICABLE ALTERNATES.
- DEMOLITION AND SITE PREP OF AMENITIES BUILDING AREA SHALL BE COMPLETED AND AVAILABLE FOR THE AMENITIES BUILDING CONTRACTOR BY JUNE 15, 2020. AFTER DEMOLITION WITHIN THIS AREA, LEAVE ELEVATION AT APPROXIMATE SUBGRADE. BUILDING CONTRACTOR WILL BE RESPONSIBLE FOR FOUNDATION ELEVATION.

- APPROXIMATE CONSTRUCTION SEQUENCING**
- INSTALL EROSION CONTROL MEASURES.
  - STRIP & STOCKPILE TOPSOIL.
  - REMOVE EXCESS TOP SOIL.
  - PULVERIZE & STOCKPILE PAVEMENT
  - STRIP & STOCKPILE BASE COURSE MATERIAL
  - INSTALL DRAINAGE AND SYNTHETIC TURF ANCHOR CURB.
  - IMPORT SYNTHETIC TURF BASE STONE.
  - INSTALL SYNTHETIC TURF CARPET.
  - RECONSTRUCT PARKING AREAS.
  - INSTALL WALKWAYS AND LANDSCAPING.
  - FINAL STABILIZATION.
  - FINAL CLEAN-UP & REMOVE EROSION CONTROL MEASURES.
- NOTE:**
- ENTIRE LIMIT OF WORK SHALL BE SECURED WITH 6' CHAIN LINK CONSTRUCTION FENCE.
  - FINAL CONSTRUCTION SEQUENCING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN ORDER TO COMPLY WITH PROJECT SCHEDULE.

DEMOLITION AND EROSION CONTROL LEGEND	
	LIMITS OF BITUMINOUS PAVEMENT TO BE PULVERIZED AND RECLAIMED FOR REUSE
	LIMITS OF GRASS, TOPSOIL, AND INFIELD CLAY TO BE REMOVED AND DISPOSED OF
	STABILIZED CONSTRUCTION ENTRANCE
	LIMIT OF WORK / EROSION CONTROL
	FENCE, WALL, UTILITY LINE, OR CURB TO BE REMOVED AND DISPOSED OF
	STRUCTURE TO REMAIN AND BE PROTECTED
	12" DIAMETER COMPOST OR MULCH FILLED SILT SOCK
	SAWCUT LINE
	STRUCTURE TO BE REMOVED AND EITHER STOCKPILED OR DISPOSED OF

**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

**PERMIT SET**

**PROJECT**  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

**OWNER**  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C003		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		

GRAPHIC SCALE

SHEET TITLE

**DEMOLITION AND EROSION CONTROL PLAN  
SHEET 2 OF 2**

DRAWING NO.  
**C004**

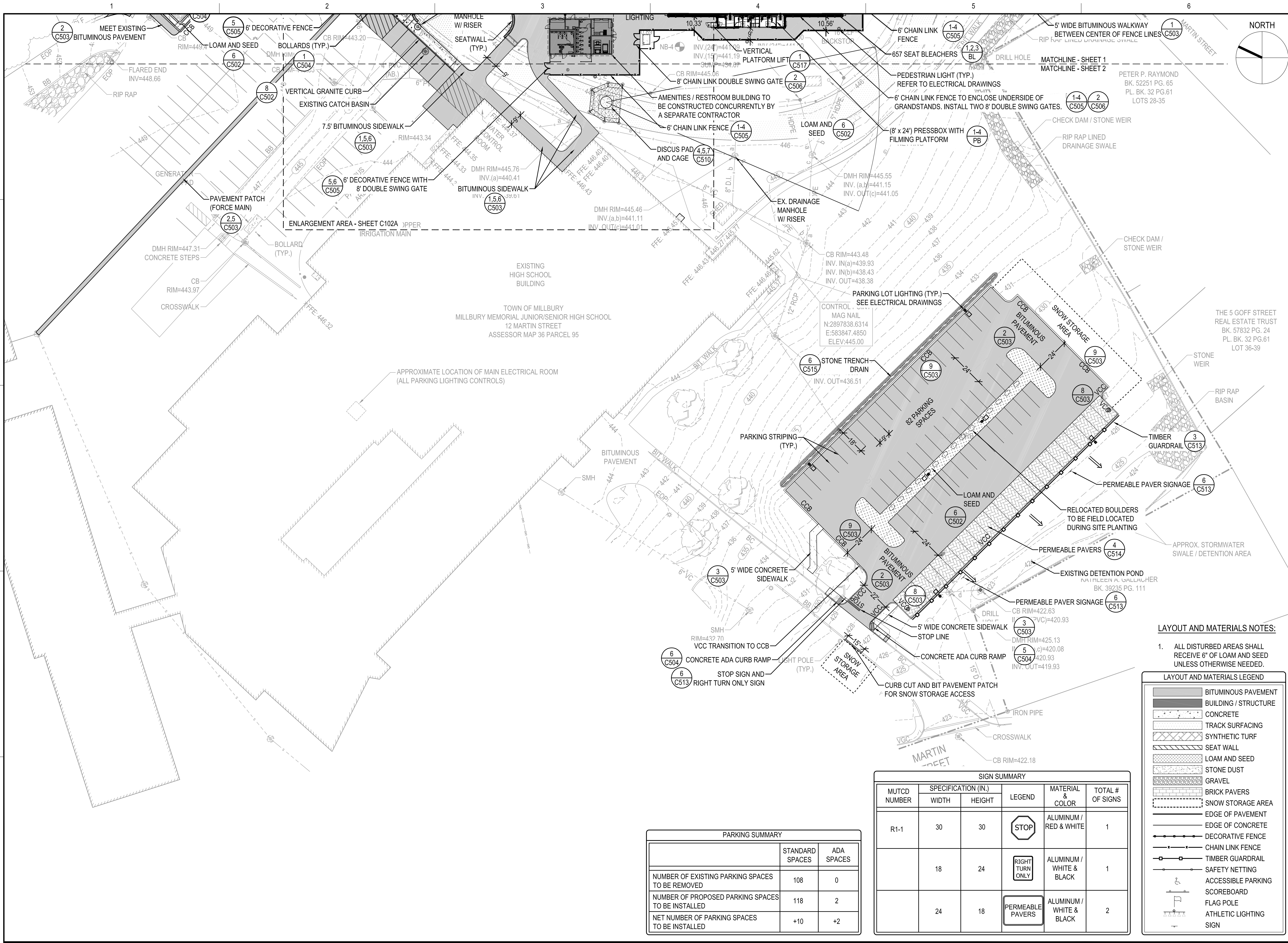
OF 55







F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C101.dwg, 3/12/2020 12:43:29 PM, dfr, Adobe PDF



PARKING SUMMARY		
	STANDARD SPACES	ADA SPACES
NUMBER OF EXISTING PARKING SPACES TO BE REMOVED	108	0
NUMBER OF PROPOSED PARKING SPACES TO BE INSTALLED	118	2
NET NUMBER OF PARKING SPACES TO BE INSTALLED	+10	+2

SIGN SUMMARY					
MUTCD NUMBER	SPECIFICATION (IN.)		LEGEND	MATERIAL COLOR	TOTAL # OF SIGNS
WIDTH	HEIGHT				
R1-1	30	30		ALUMINUM / RED & WHITE	1
	18	24		ALUMINUM / WHITE & BLACK	1
	24	18		ALUMINUM / WHITE & BLACK	2

LAYOUT AND MATERIALS NOTES:

- ALL DISTURBED AREAS SHALL RECEIVE 6" OF LOAM AND SEED UNLESS OTHERWISE NEEDED.

LAYOUT AND MATERIALS LEGEND

- BITUMINOUS PAVEMENT
- BUILDING / STRUCTURE
- CONCRETE
- TRACK SURFACING
- SYNTHETIC TURF
- SEAT WALL
- LOAM AND SEED
- STONE DUST
- GRAVEL
- BRICK PAVERS
- SNOW STORAGE AREA
- EDGE OF PAVEMENT
- EDGE OF CONCRETE
- DECORATIVE FENCE
- CHAIN LINK FENCE
- TIMBER GUARDRAIL
- SAFETY NETTING
- ACCESSIBLE PARKING
- SCOREBOARD
- FLAG POLE
- ATHLETIC LIGHTING
- SIGN

**GALE**

Gale Associates, Inc.  
Engineers and Planners

163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

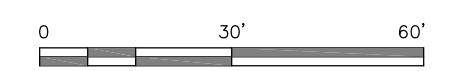
PERMIT SET

PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C101		
DESIGNED BY	DFN		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		

GRAPHIC SCALE



SHEET TITLE

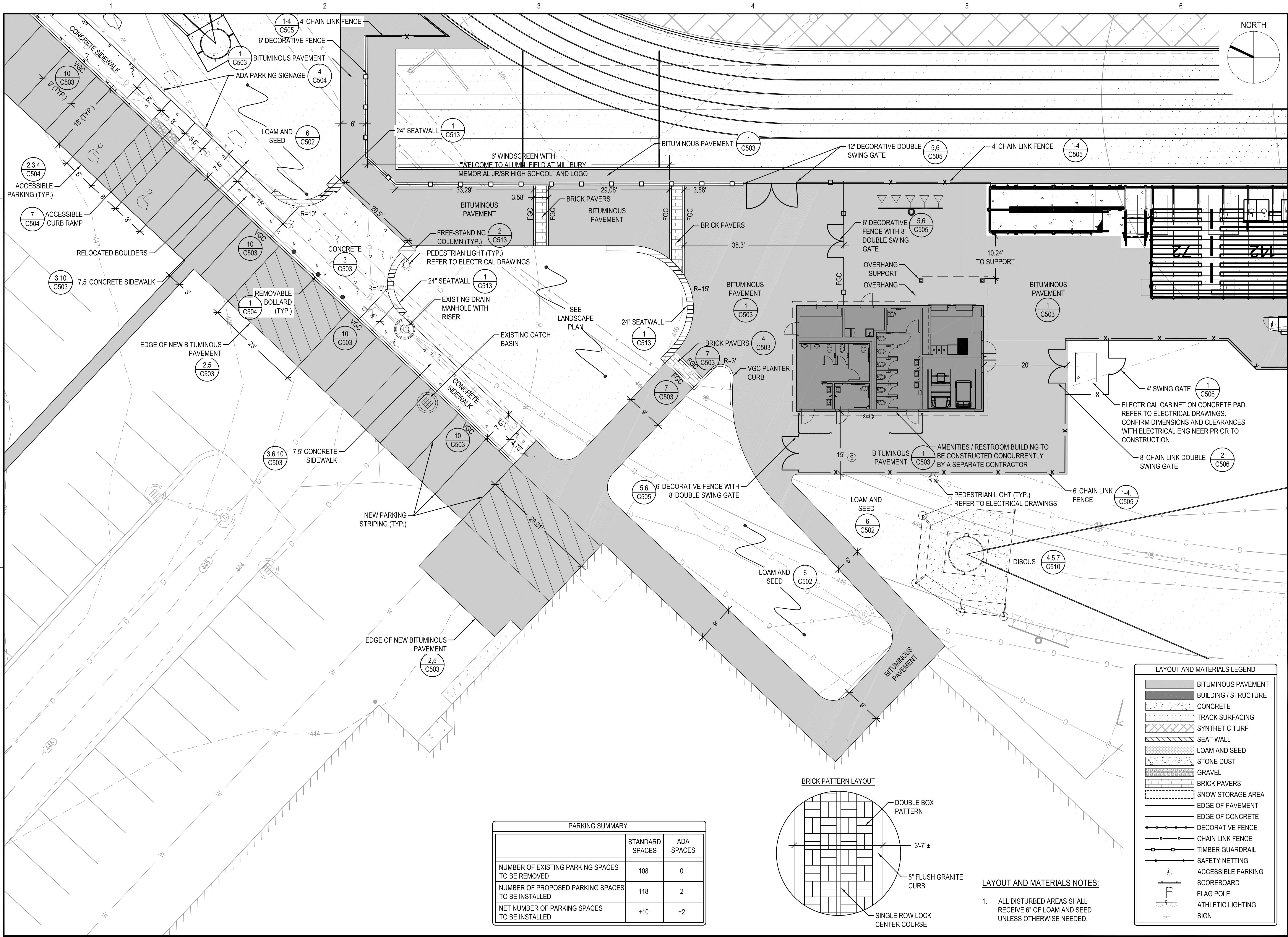
BASE BID  
LAYOUT AND  
MATERIALS PLAN  
SHEET 2 OF 3

DRAWING NO.  
**C102**

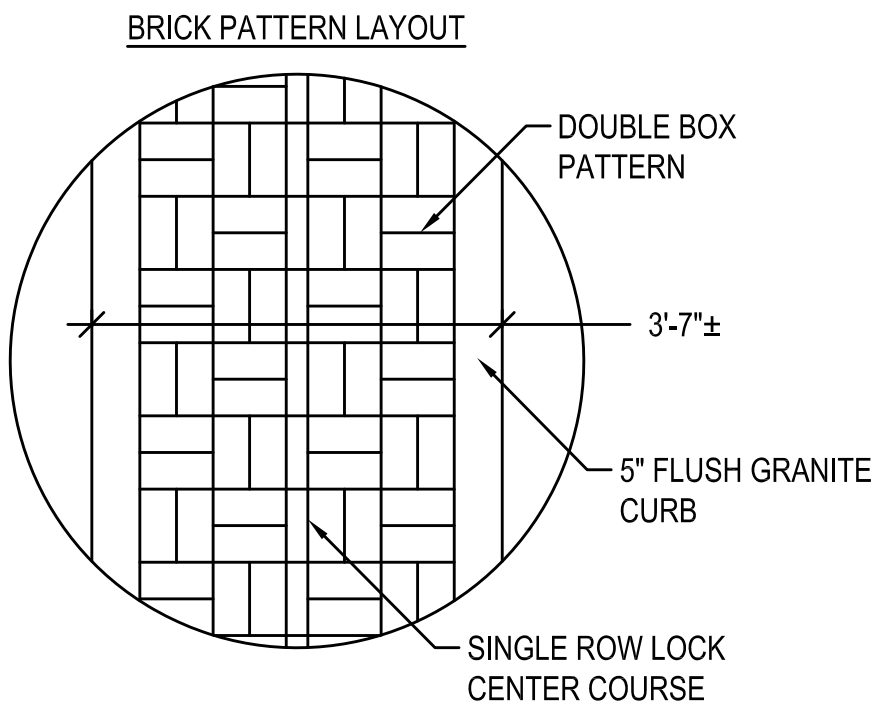
OF 55



F:\16383\plots\07-Permit Drawings\03-Resubmission\16383\_C101.dwg, 3/12/2020 12:44:11 PM, dfr, Adobe PDF



PARKING SUMMARY		
	STANDARD SPACES	ADA SPACES
NUMBER OF EXISTING PARKING SPACES TO BE REMOVED	108	0
NUMBER OF PROPOSED PARKING SPACES TO BE INSTALLED	118	2
NET NUMBER OF PARKING SPACES TO BE INSTALLED	+10	+2



LAYOUT AND MATERIALS NOTES:

- ALL DISTURBED AREAS SHALL RECEIVE 6" OF LOAM AND SEED UNLESS OTHERWISE NEEDED.

LAYOUT AND MATERIALS LEGEND	
	BITUMINOUS PAVEMENT
	BUILDING / STRUCTURE
	CONCRETE
	TRACK SURFACING
	SYNTHETIC TURF
	SEAT WALL
	LOAM AND SEED
	STONE DUST
	GRAVEL
	BRICK PAVERS
	SNOW STORAGE AREA
	EDGE OF PAVEMENT
	EDGE OF CONCRETE
	DECORATIVE FENCE
	CHAIN LINK FENCE
	TIMBER GUARDRAIL
	SAFETY NETTING
	ACCESSIBLE PARKING
	SCOREBOARD
	FLAG POLE
	ATHLETIC LIGHTING
	SIGN

Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

PERMIT SET

PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C101		
DESIGNED BY	DPN		
DRAWN BY	DPN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=10'		

GRAPHIC SCALE

0 10' 20'

SHEET TITLE

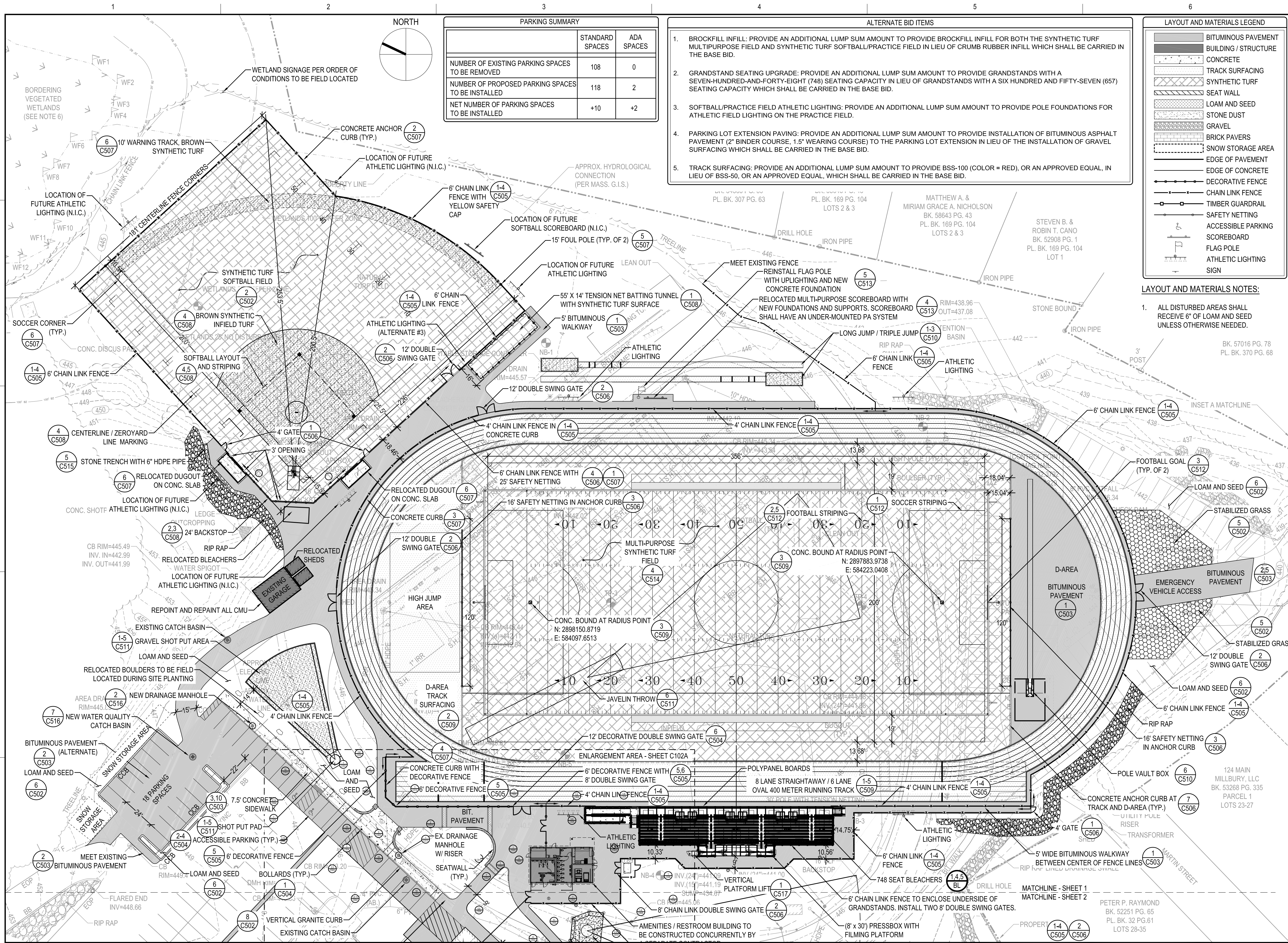
BASE BID  
LAYOUT AND  
MATERIALS PLAN  
SHEET 3 OF 3

DRAWING NO.  
C102A

OF 55



F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C101.dwg, 3/12/2020 12:44:47 PM, dfr, Adobe PDF



**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.galinc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

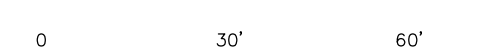
**PERMIT SET**

**MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527**

**MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527**

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C101		
DESIGNED BY	DFN		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		

GRAPHIC SCALE



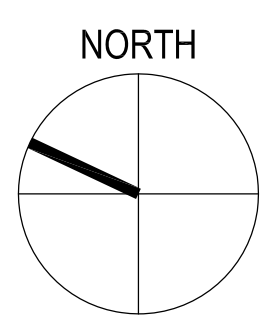
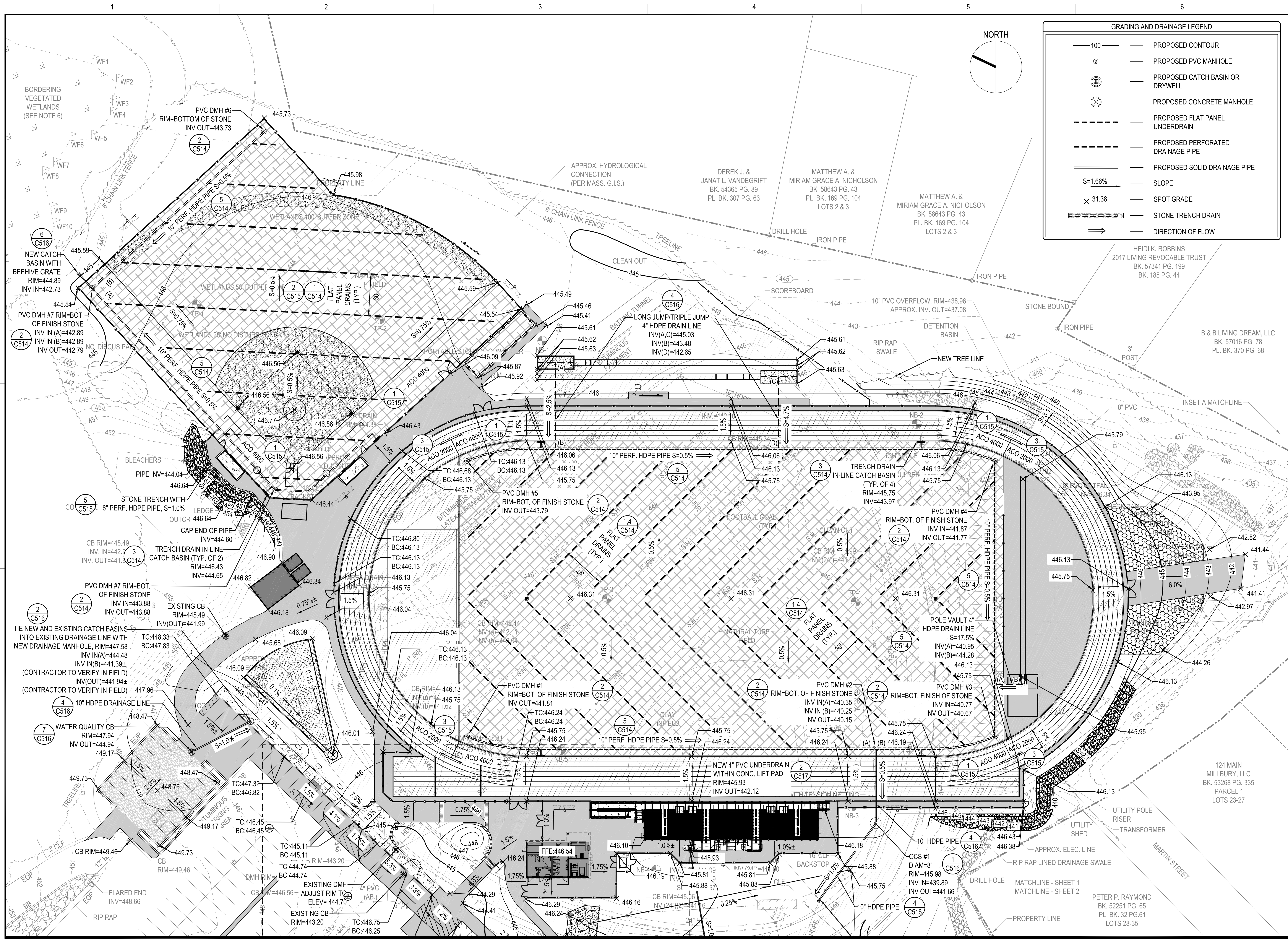
SHEET TITLE

**ALTERNATE  
LAYOUT AND  
MATERIALS PLAN  
SHEET 1 OF 1**



DRAWING NO.  
**C103**  
OF 55





GRADING AND DRAINAGE LEGEND	
	PROPOSED CONTOUR
	PROPOSED PVC MANHOLE
	PROPOSED CATCH BASIN OR DRYWELL
	PROPOSED CONCRETE MANHOLE
	PROPOSED FLAT PANEL UNDERDRAIN
	PROPOSED PERFORATED DRAINAGE PIPE
	PROPOSED SOLID DRAINAGE PIPE
	SLOPE
	SPOT GRADE
	STONE TRENCH DRAIN
	DIRECTION OF FLOW

**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

PERMIT SET

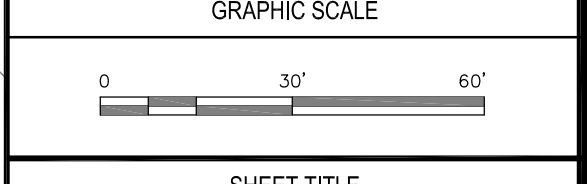
PROJECT

**MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS**  
12 MARTIN STREET  
MILLBURY, MA 01527

OWNER

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C201		
DESIGNED BY	DFN		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		



SHEET TITLE

**BASE BID  
GRADING AND  
DRAINAGE PLAN  
SHEET 1 OF 3**

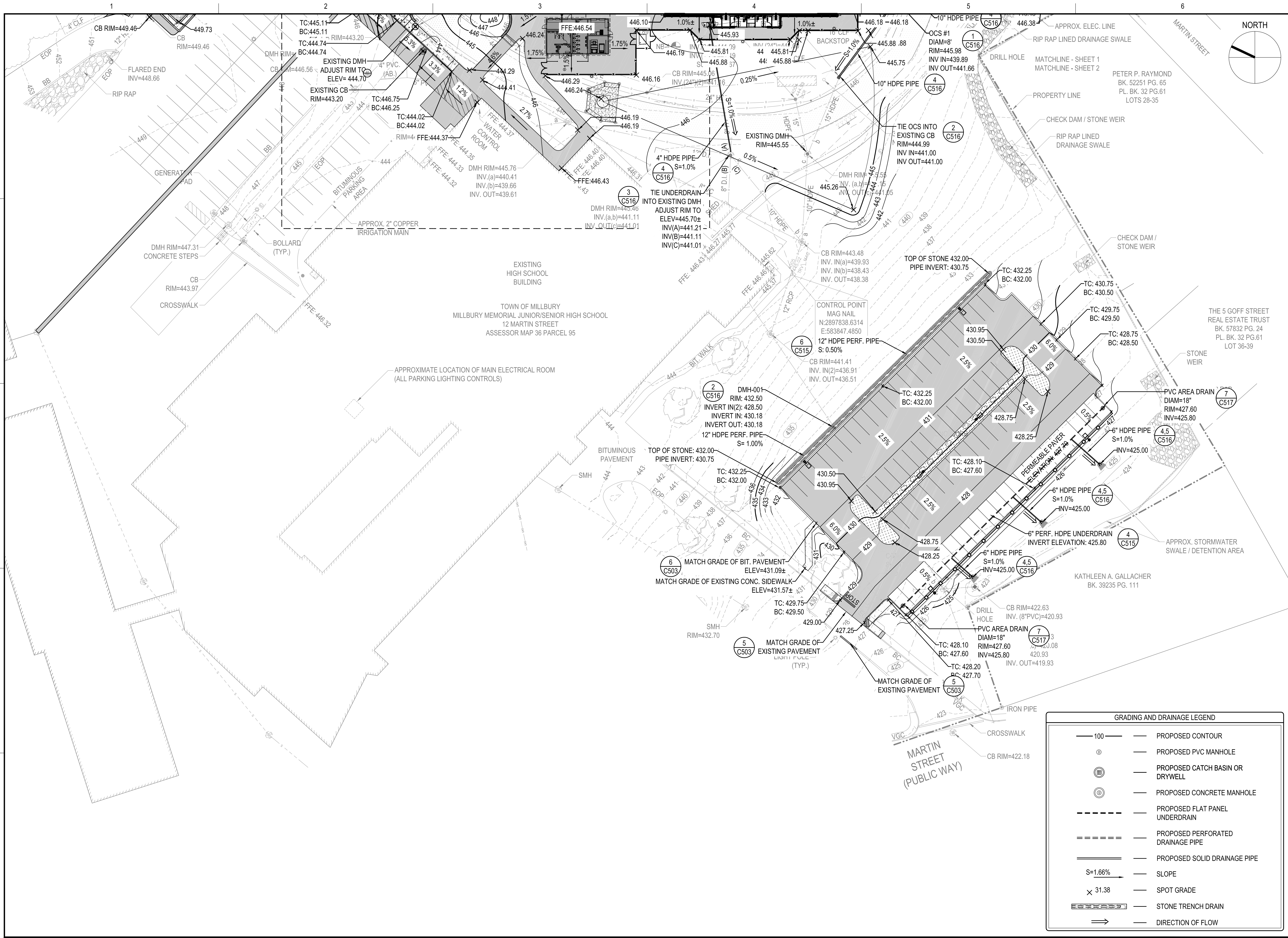
DRAWING NO.


**C201**

OF 55



F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C201.dwg, 3/12/2020 12:32:54 PM, dfr, Adobe PDF





**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates,  
Inc. Copyright©2020

**PERMIT SET**

PROJECT

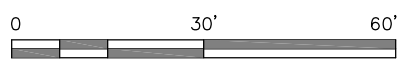
**MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527**

OWNER

**MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527**

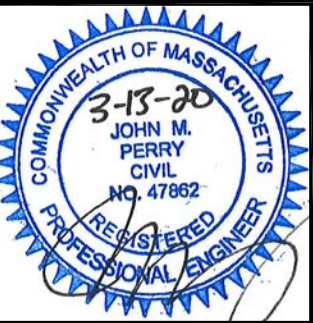
NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C201		
DESIGNED BY	DFN		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		

GRAPHIC SCALE



SHEET TITLE

**BASE BID  
GRADING AND  
DRAINAGE PLAN  
SHEET 2 OF 3**



DRAWING NO.

**C202**

OF 55



This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

PERMIT SET

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_C201	
DESIGNED BY		DFN	
DRAWN BY		DFN/KFR	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		1"=10'	

GRAPHIC SCALE



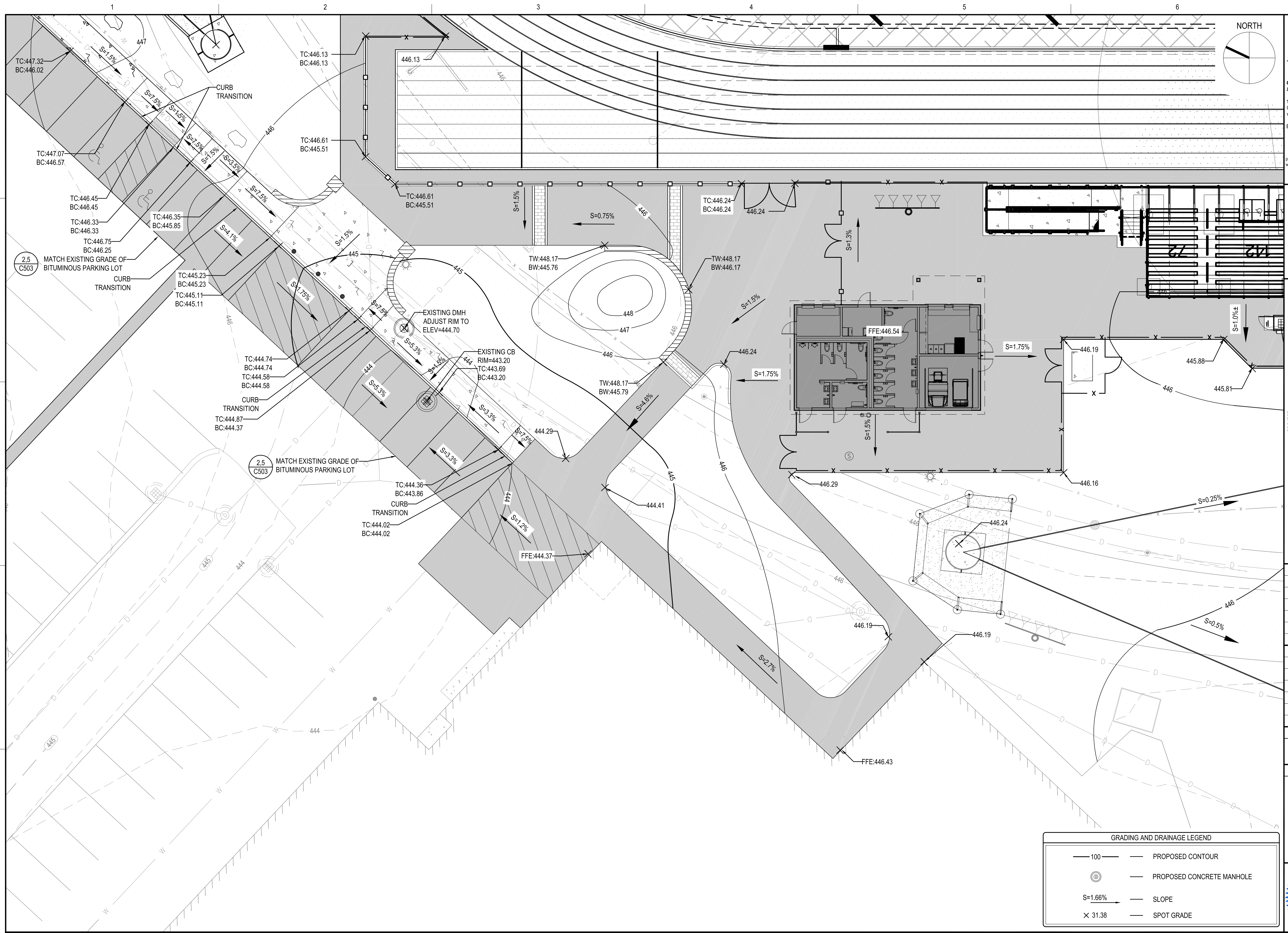
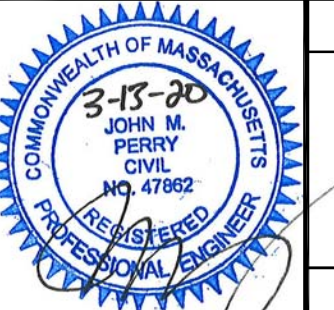
ET TITLE

BASE BID  
GRADING AND  
DRAINAGE PLAN  
SHEET 3 OF 3

DRAWING NO.

C202A

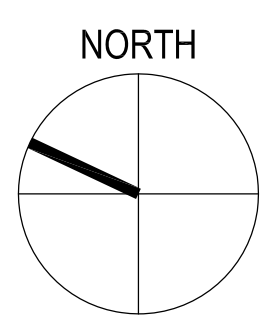
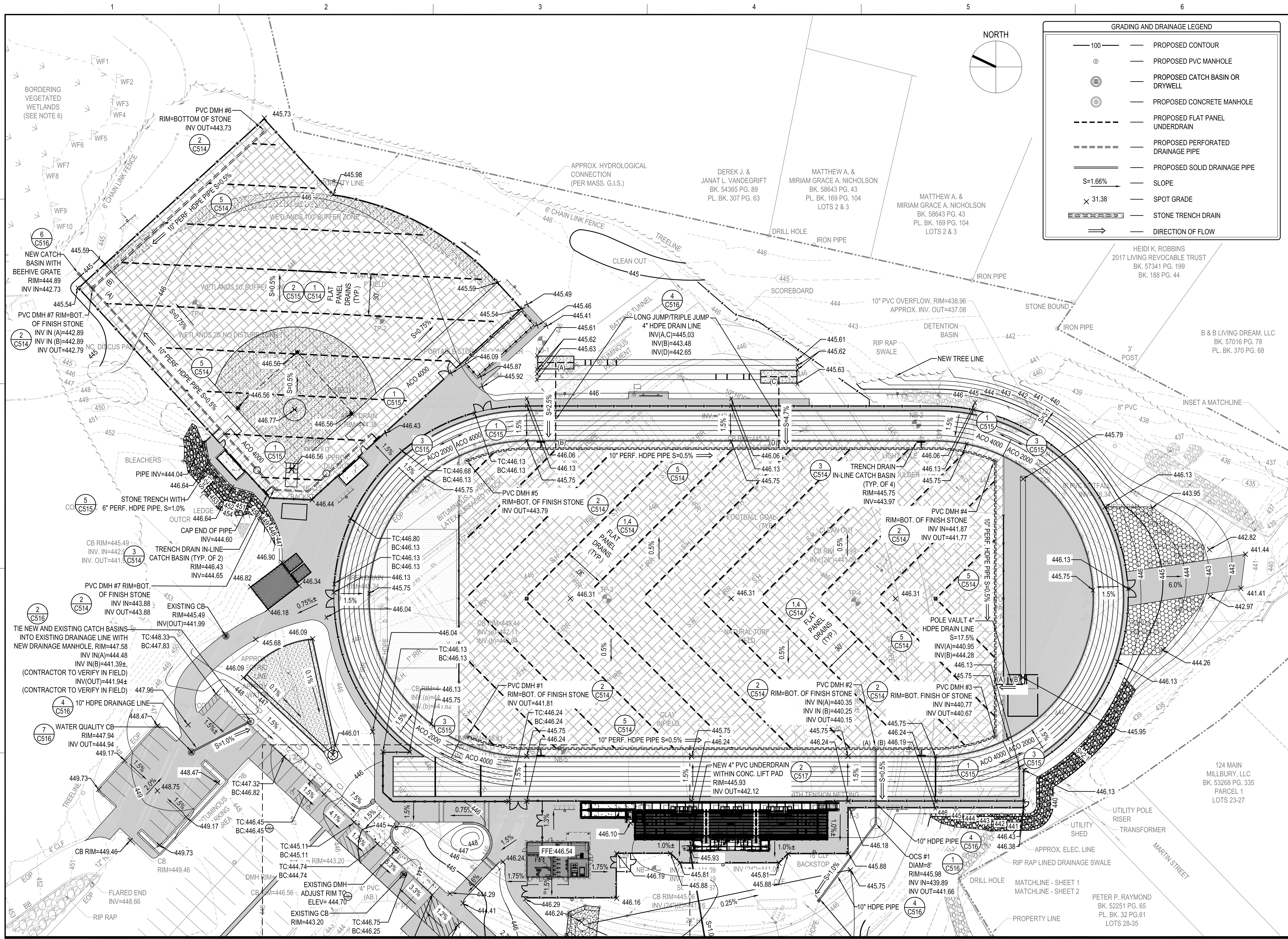
55



## GRADING AND DRAINAGE LEGEND

— 100 — PROPOSED CONTOUR  
 (M) PROPOSED CONCRETE MANHOLE  
 S=1.66% SLOPE  
 X 31.38 SPOT GRADE





GRADING AND DRAINAGE LEGEND	
	PROPOSED CONTOUR
	PROPOSED PVC MANHOLE
	PROPOSED CATCH BASIN OR DRYWELL
	PROPOSED CONCRETE MANHOLE
	PROPOSED FLAT PANEL UNDERDRAIN
	PROPOSED PERFORATED DRAINAGE PIPE
	PROPOSED SOLID DRAINAGE PIPE
	SLOPE
	SPOT GRADE
	STONE TRENCH DRAIN
	DIRECTION OF FLOW

**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.galeinc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

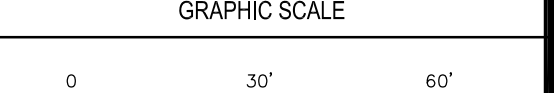
PERMIT SET

**MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS**  
12 MARTIN STREET  
MILLBURY, MA 01527

PROJECT

OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C201		
DESIGNED BY	DFN		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		



SHEET TITLE

**ALTERNATE  
GRADING AND  
DRAINAGE PLAN  
SHEET 1 OF 1**

DRAWING NO.

**C203**

OF 55



This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

# PERMIT SET

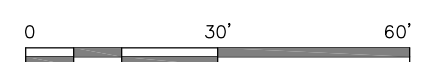
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_C301	
DESIGNED BY		DFN	
DRAWN BY		DFN/KFR	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		1"=30'	

GRAPHIC SCALE



HEET TITLE

UTILITY  
PLAN  
SHEET 1 OF 2



DRAWING NO.

C301

16 OF 55







SITE CONTRACTOR IS TO PROVIDE POWER TO:

- PRESS BOX AND LIFT
- PA SYSTEM
- MULTIPURPOSE SCOREBOARD
- UNDER GRANDSTAND LIGHTING
- PARKING LOT LIGHTING
- PEDESTRIAN WALKWAY LIGHTING
- MPR FIELD ATHLETIC LIGHTING
- EXISTING LIGHT POLES ALONG DRIVEWAY  
TO ORCHARD STREET ENTRANCE

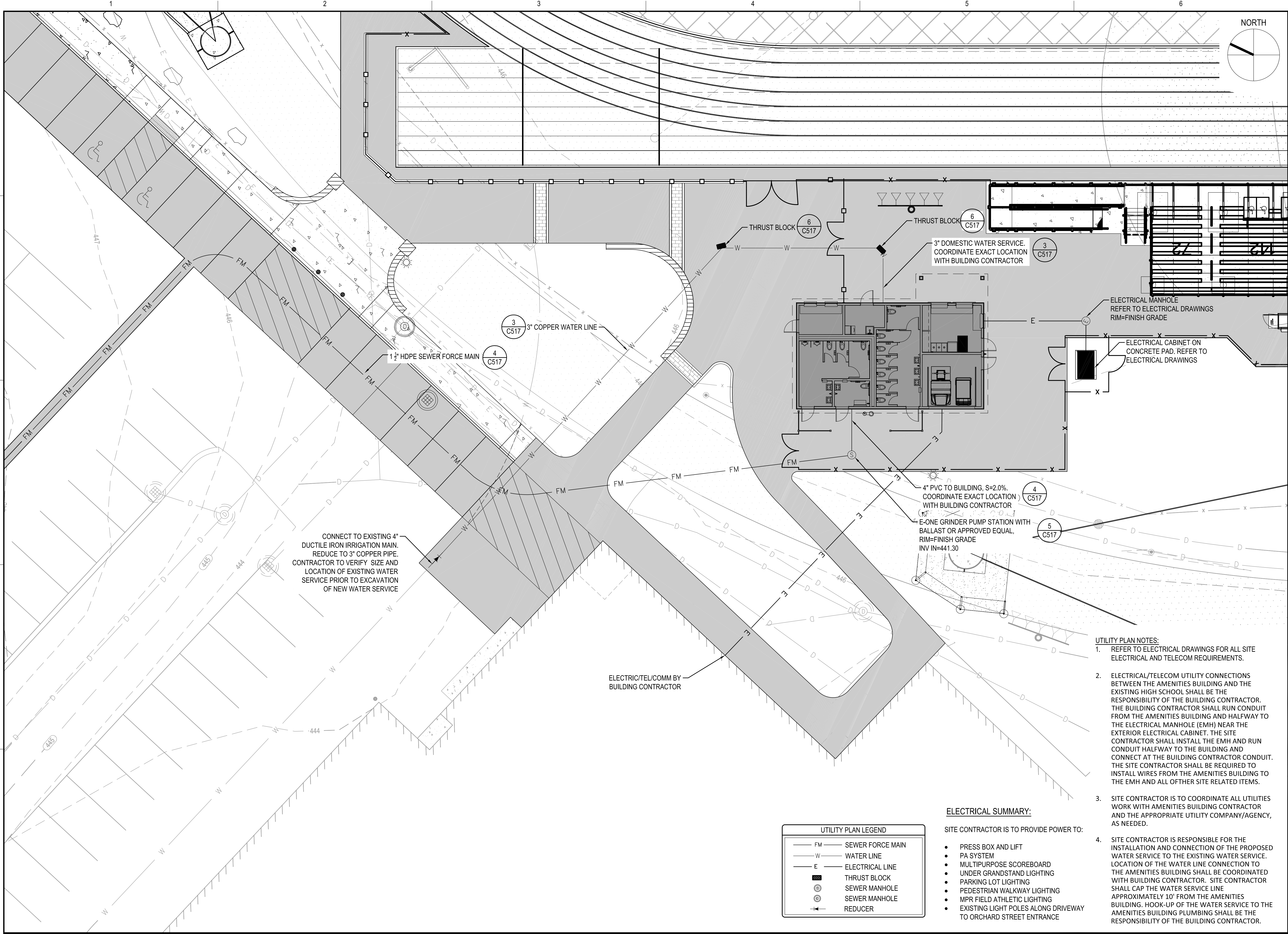
## UTILITY PLAN NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR ALL SITE ELECTRICAL AND TELECOM REQUIREMENTS.
2. ELECTRICAL/TELECOM UTILITY CONNECTIONS BETWEEN THE AMENITIES BUILDING AND THE EXISTING HIGH SCHOOL SHALL BE THE RESPONSIBILITY OF THE BUILDING CONTRACTOR. THE BUILDING CONTRACTOR SHALL RUN CONDUIT FROM THE AMENITIES BUILDING AND HALFWAY TO THE ELECTRICAL MANHOLE (EMH) NEAR THE EXTERIOR ELECTRICAL CABINET. THE SITE CONTRACTOR SHALL INSTALL THE EMH AND RUN CONDUIT HALFWAY TO THE BUILDING AND CONNECT A THE BUILDING CONTRACTOR CONDUIT. THE SITE CONTRACTOR SHALL BE REQUIRED TO INSTALL WIRES FROM THE AMENITIES BUILDING TO THE EMH AND ALL OTHER SITE RELATED ITEMS.
3. SITE CONTRACTOR IS TO COORDINATE ALL UTILITIES WORK WITH AMENITIES BUILDING CONTRACTOR AND THE APPROPRIATE UTILITY COMPANY/AGENCY, AS NEEDED.

### UTILITY PLAN LEGEND

- FM — SEWER FORCE MAIN  
 — W — WATER LINE  
 — E — ELECTRICAL LINE  
 THRUST BLOCK  
 SEWER MANHOLE  
 SEWER MANHOLE  
 REDUCER





**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

**PERMIT SET**

**PROJECT**  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

**OWNER**  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C301		
DESIGNED BY	DPN		
DRAWN BY	DPN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=10'		

GRAPHIC SCALE

0 10' 20'

SHEET TITLE

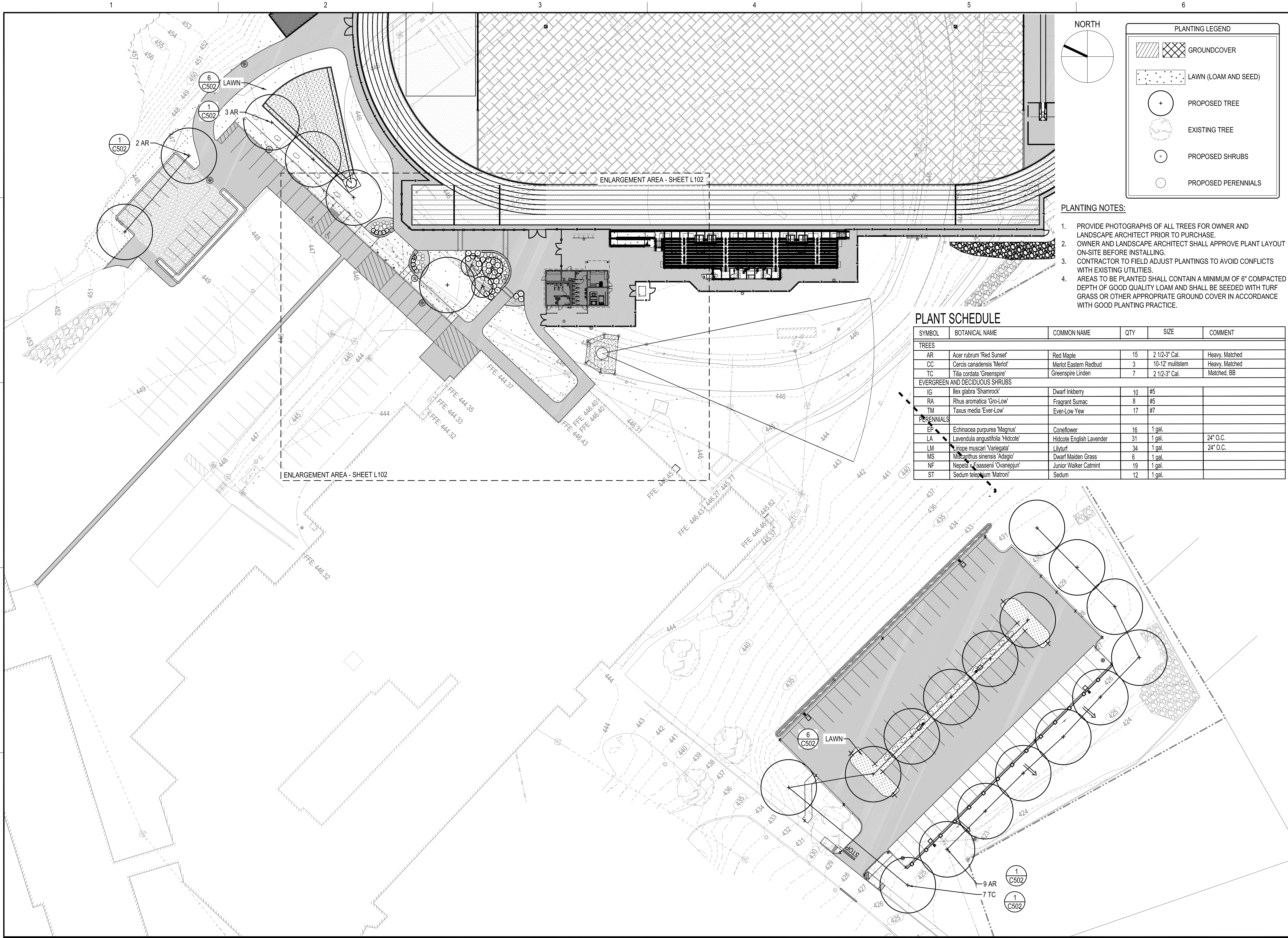
**UTILITY PLAN**  
SHEET 2 OF 2


DRAWING NO.  
**C301A**

17 OF 55



F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_L101.dwg, 3/12/2020 1:19:13 PM, dlm, Adobe PDF





**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.galinc.com

Boston   Baltimore   Orlando   Hartford   Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

PERMIT SET

PROJECT

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

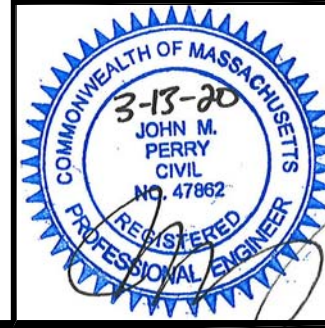
OWNER

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_L101		
DESIGNED BY	MAD		
DRAWN BY	MAD		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1"=30'		

GRAPHIC SCALE  
0 30' 60'

SHEET TITLE  
LANDSCAPE  
PLAN  
SHEET 1 OF 2



DRAWING NO.  
**L101**  
OF 55



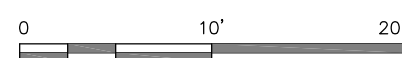
This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

## PERMIT SET

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

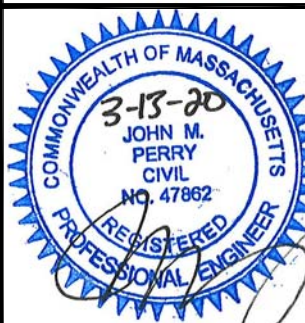
NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_L101	
DESIGNED BY		MAD	
DRAWN BY		MAD	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		1"=10'	

GRAPHIC SCALE



SHEET TITLE

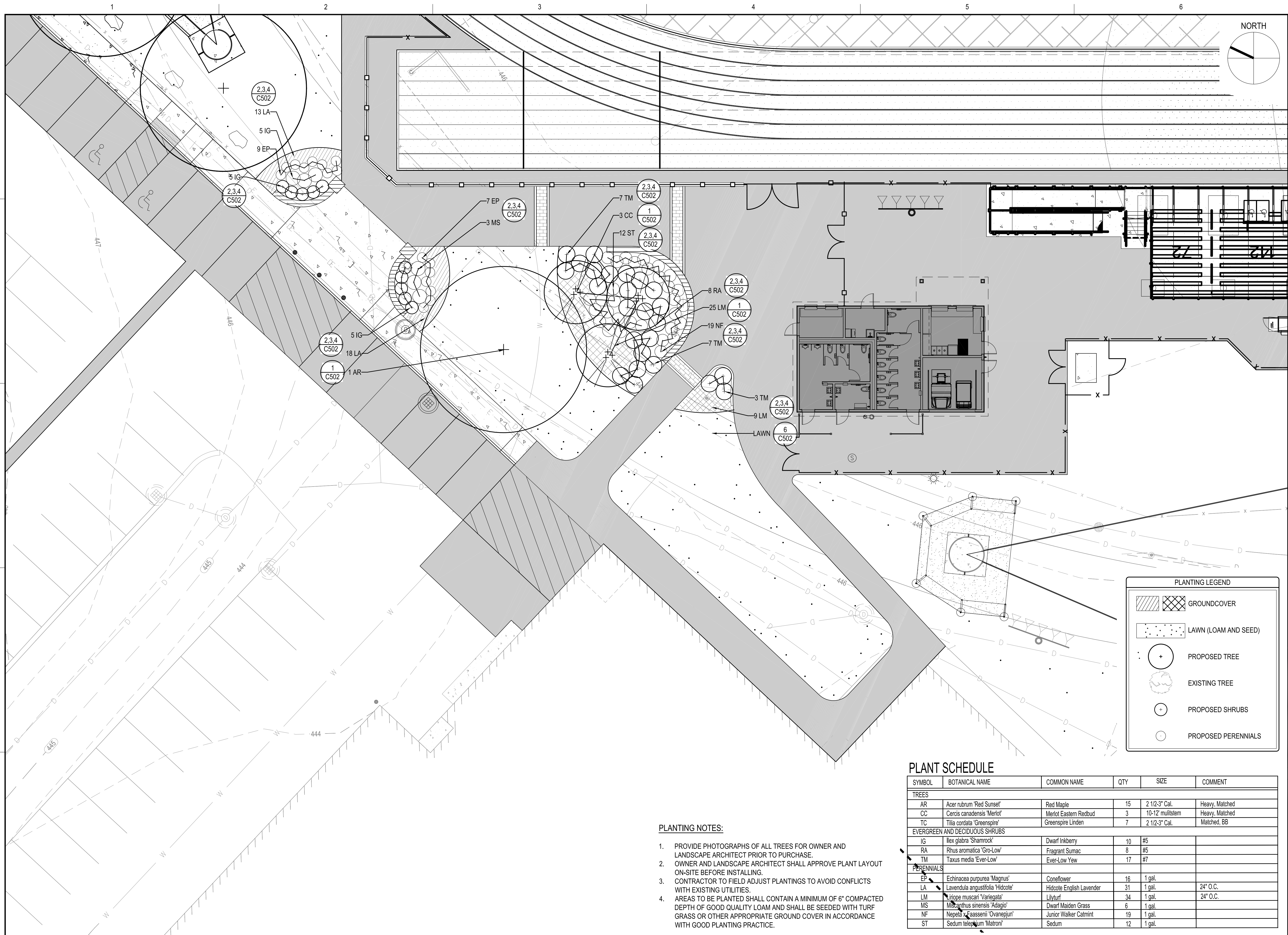
LANDSCAPE  
PLAN  
SHEET 2 OF 2



DRAWING NC

~~L102~~

OF :



PLANTING NOTES:

1. PROVIDE PHOTOGRAPHS OF ALL TREES FOR OWNER AND LANDSCAPE ARCHITECT PRIOR TO PURCHASE.
2. OWNER AND LANDSCAPE ARCHITECT SHALL APPROVE PLANT LAYOUT ON-SITE BEFORE INSTALLING.
3. CONTRACTOR TO FIELD ADJUST PLANTINGS TO AVOID CONFLICTS WITH EXISTING UTILITIES.
4. AREAS TO BE PLANTED SHALL CONTAIN A MINIMUM OF 6" COMPACTED DEPTH OF GOOD QUALITY LOAM AND SHALL BE SEEDDED WITH TURF GRASS OR OTHER APPROPRIATE GROUND COVER IN ACCORDANCE WITH GOOD PLANTING PRACTICE.

## PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY	SIZE	COMMENT
TREES					
AR	Acer rubrum 'Red Sunset'	Red Maple	15	2 1/2-3' Cal.	Heavy, Matched
CC	Cercis canadensis 'Merlot'	Merlot Eastern Redbud	3	10-12' multi-stem	Heavy, Matched
TC	Tilia cordata 'Greenspire'	Greenspire Linden	7	2 1/2-3' Cal.	Matched, BB
EVERGREEN AND DECIDUOUS SHRUBS					
IG	Ilex glabra 'Shamrock'	Dwarf Inkberry	10	#5	
RA	Rhus aromatica 'Gro-Low'	Fragrant Sumac	8	#5	
TM	Taxus media 'Ever-Low'	Ever-Low Yew	17	#7	
PERENNIALS					
EP	Echinacea purpurea 'Magnus'	Coneflower	16	1 gal.	
LA	Lavendula angustifolia 'Hidcote'	Hidcote English Lavender	31	1 gal.	24" O.C.
LM	Liriope muscari 'Variegata'	Lilyturf	34	1 gal.	24" O.C.
MS	Miscanthus sinensis 'Adagio'	Warden Maiden Grass	6	1 gal.	
NF	Nepeta 'Faassenii' 'Ovaneplum'	Junior Walker Catmint	19	1 gal.	
ST	Sedum teleflorum 'Matroni'	Sedum	12	1 gal.	





- 1 **STABILIZED CONSTRUCTION ENTRANCE**  
N.T.S.



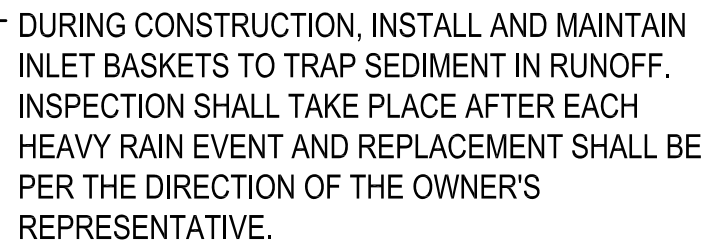
- 6 **SILT SOCK EROSION CONTROL**  
N.T.S.



- 4 **SILTATION FENCE**  
N.T.S.



- 5 **EROSION MATTING DETAIL**  
N.T.S.



**MILLBURY PUBLIC SCHOOLS**  
12 MARTIN STREET  
MILLBURY, MA 01527

GRAPHIC SCALE

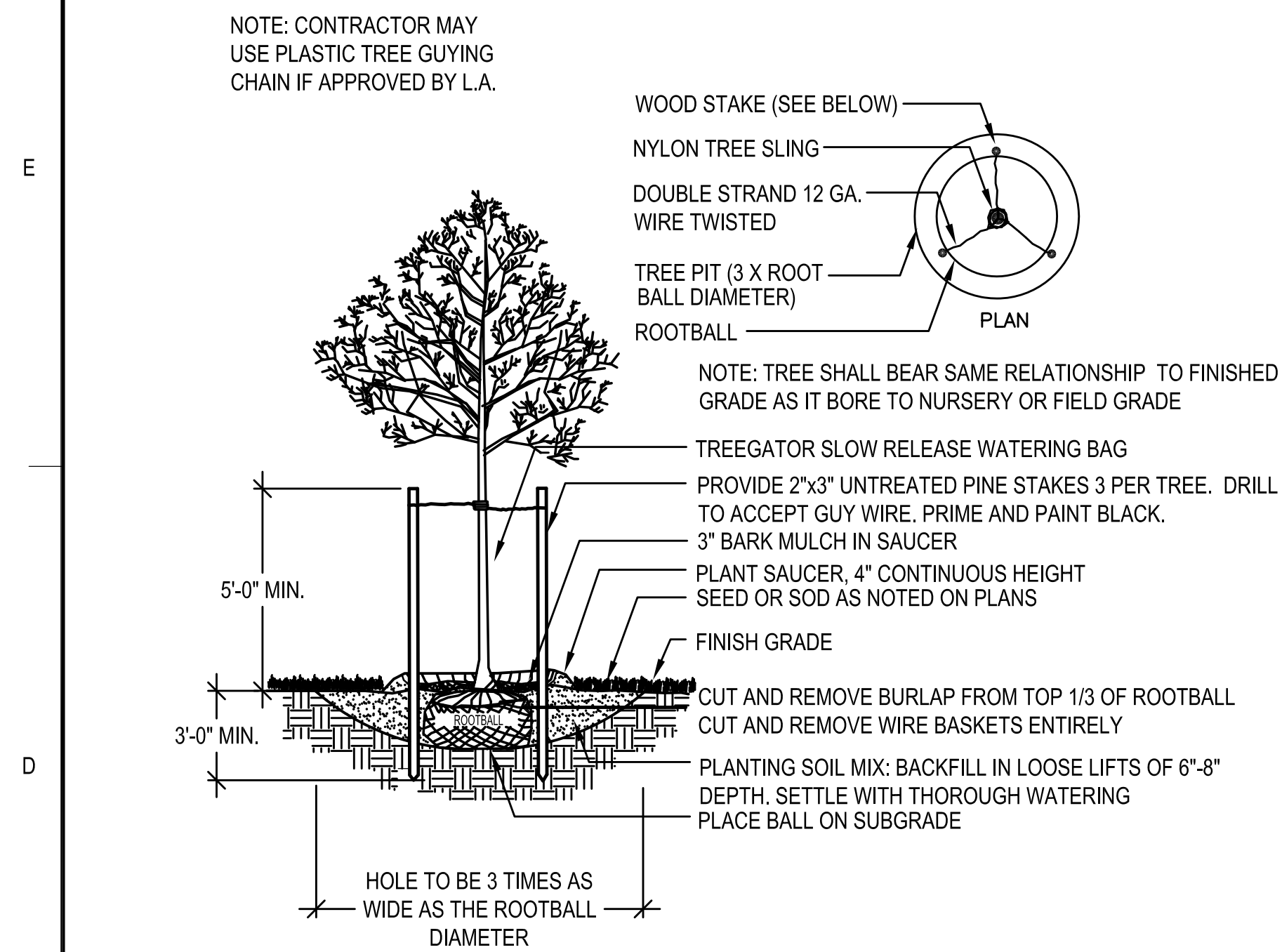
SHEET TITLE

DETAIL  
SHEET  
1 OF 17

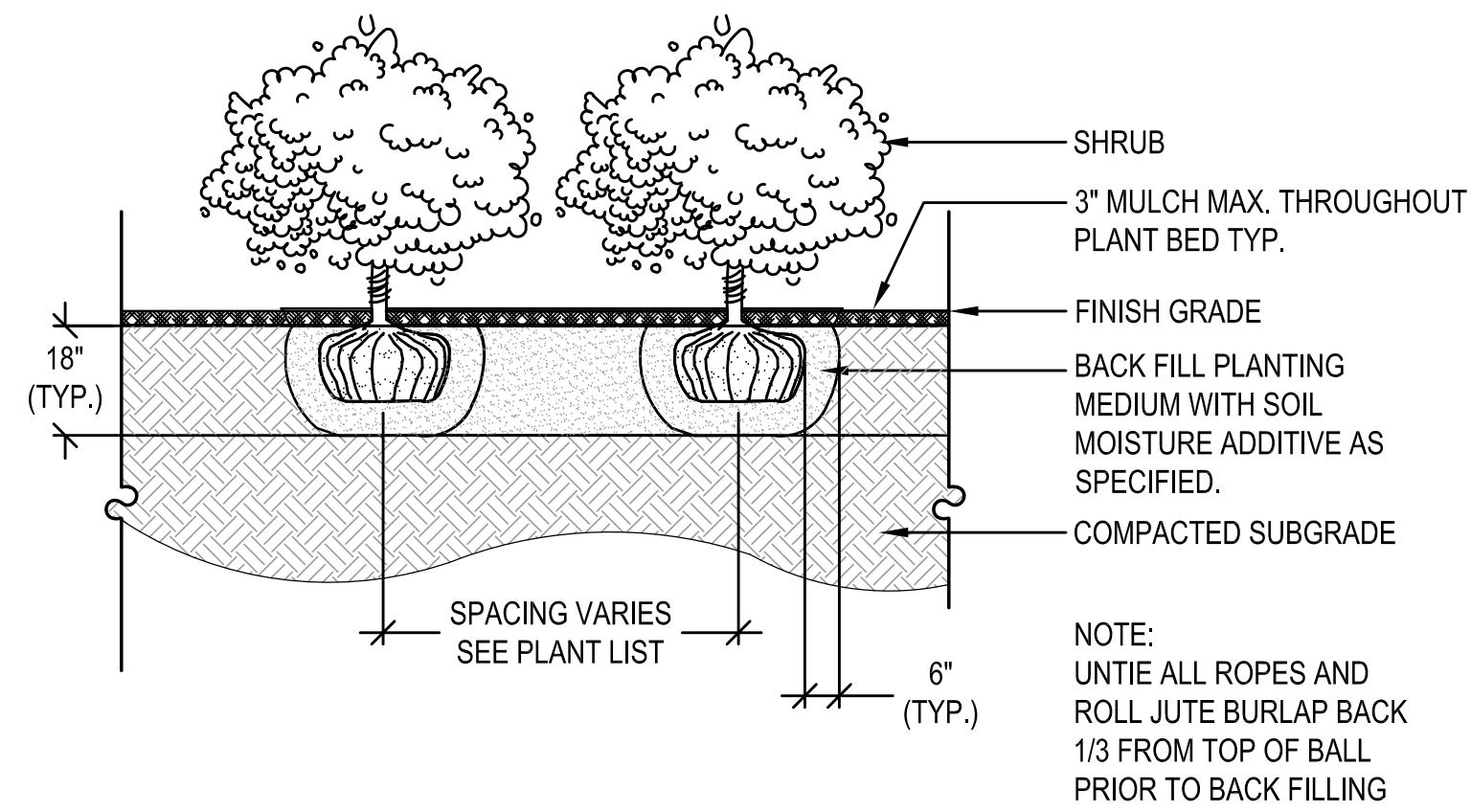


C501

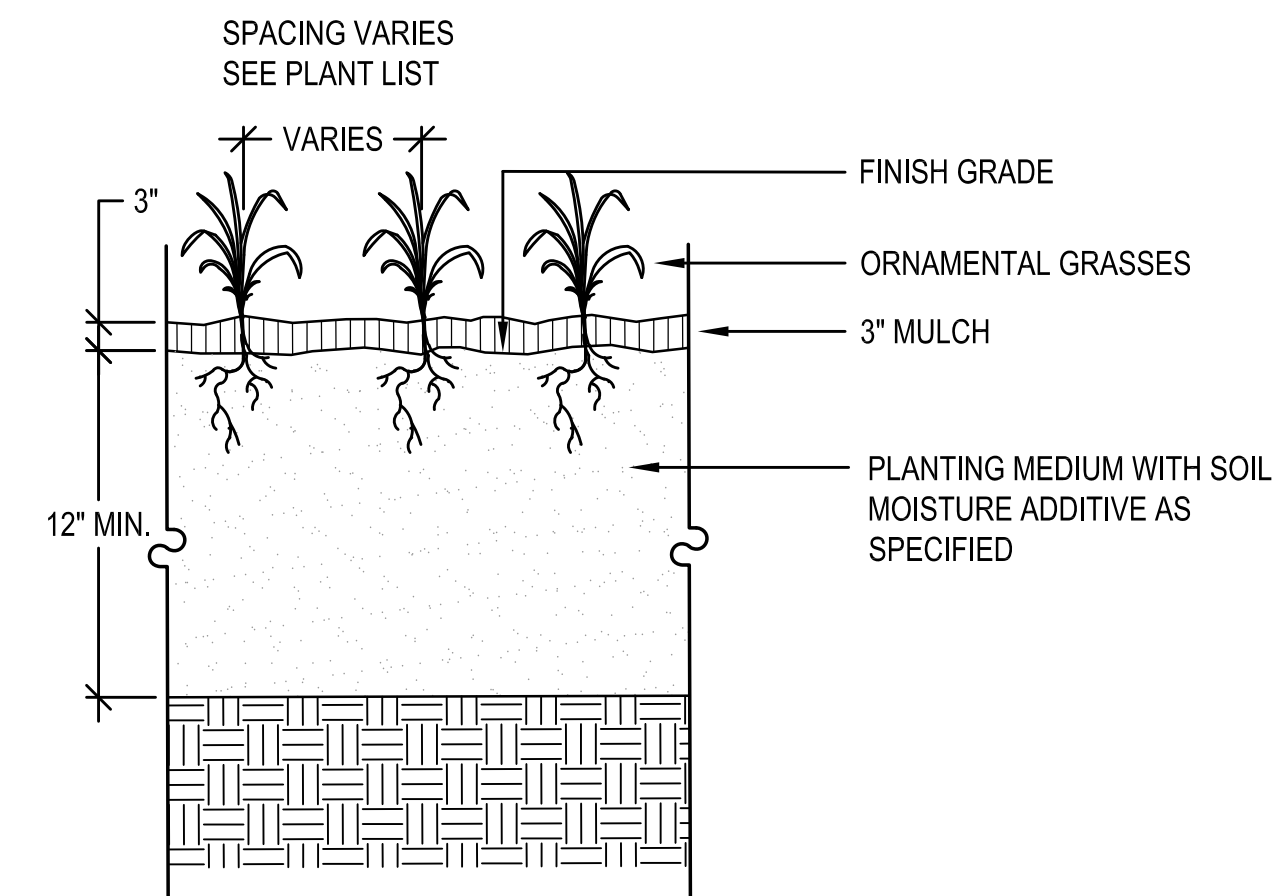




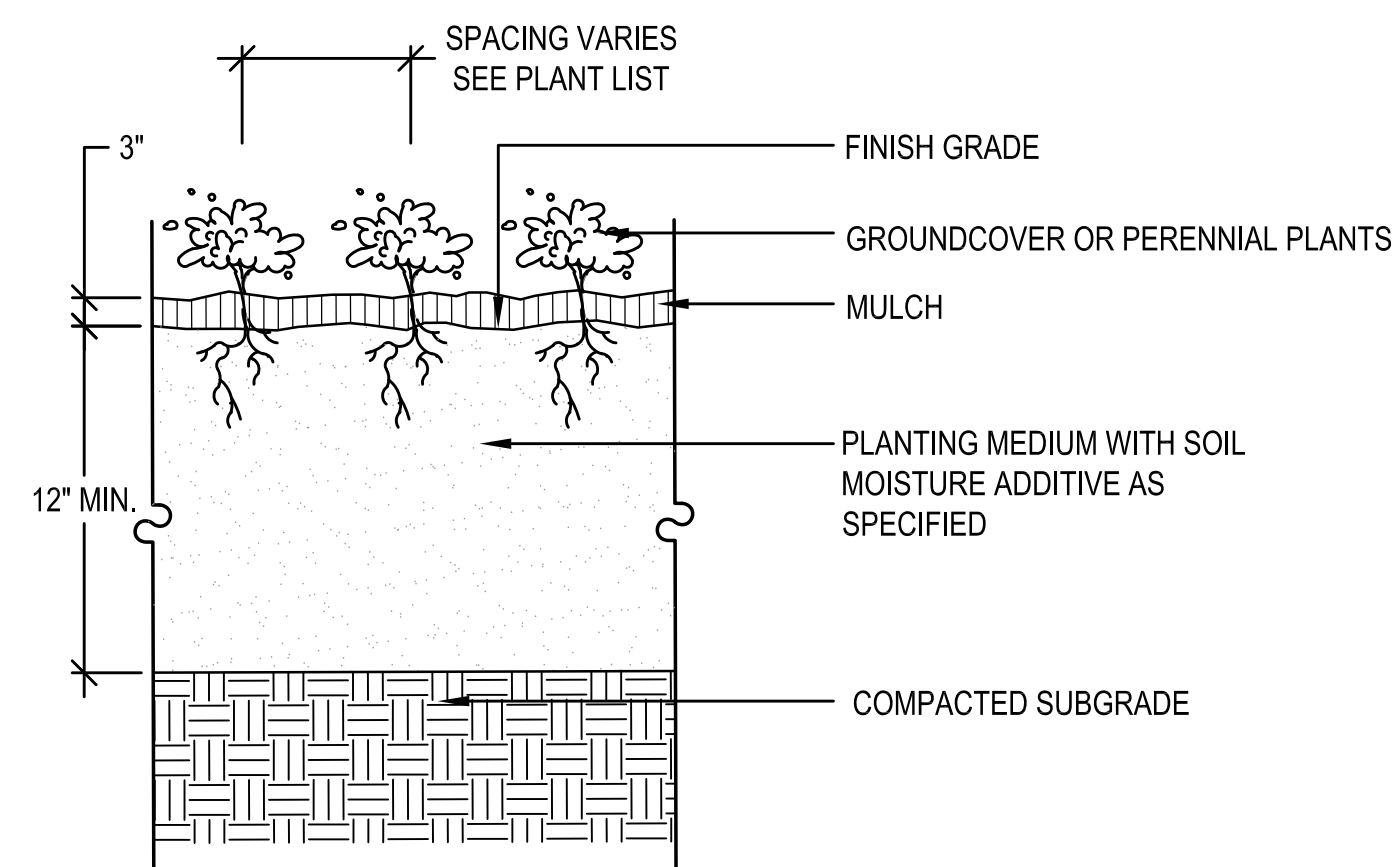
### 1 DECIDUOUS TREE PLANTING DETAIL



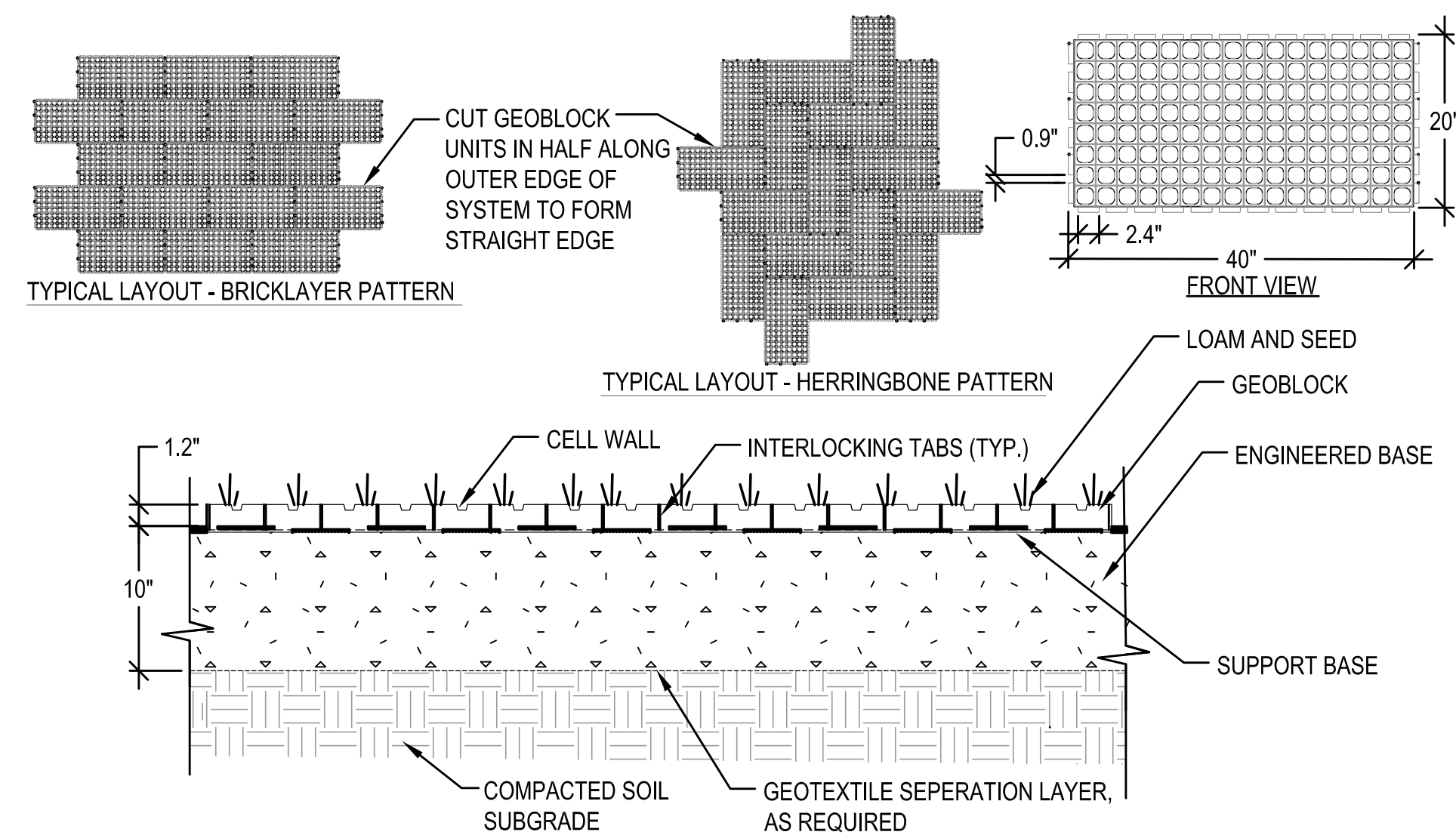
## 2 SHRUB PLANTING



**3 ORNAMENTAL GRASS / PERENNIAL PLANTING**  
N.T.S.



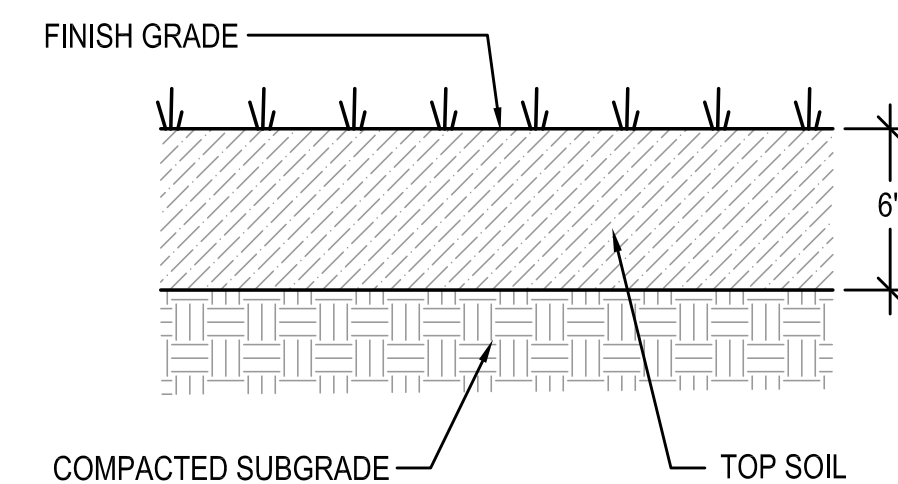
## 4 GROUND COVER PLANTING



- NOTES:

1. THIS INFORMATION IS BASED ON THE USE OF GEOBLOCK MANUFACTURED BY PRESTO PRODUCTS CO. ALL RIGHTS RESERVED. ANY USE OF THIS INFORMATION FOR ANY RIGID POROUS PAVEMENT PRODUCT OTHER THAN THAT MANUFACTURED BY PRESTO IS STRICTLY PROHIBITED AND MAKES THIS INFORMATION INVALID.
2. ENGINEERED BASE IS A HOMOGENEOUS MIXTURE CONSISTING OF OPEN GRADED CRUSHED AGGREGATE HAVING AN AASHTO #5 OR SIMILAR DESIGNATION BLENDED WITH PULVERIZED TOPSOIL AND A VOID COMPONENT GENERALLY CONTAINING AIR AND/OR WATER. THIS HOMOGENEOUS MIXTURE WILL PROMOTE VEGETATIVE GROWTH AND PROVIDE REQUIRED STRUCTURAL SUPPORT. THE AGGREGATE PORTION SHALL HAVE A PARTICLE RANGE FROM 9.5MM TO 25MM (0.375 TO 1.0in) WITH A D50 OF 13MM (0.5in). THE PERCENTAGE OF VOID-SPACE OF THE AGGREGATE PORTION WHEN COMPACTED SHALL BE AT LEAST 30%. THE PULVERIZED TOPSOIL PORTION SHALL EQUAL 33% ± OF THE TOTAL VOLUME AND BE ADDED AND BLENDED TO PRODUCE A HOMOGENEOUS MIXTURE PRIOR TO PLACEMENT.
3. IF REQUIRED, PROVIDE A NON-WOVEN GEOTEXTILE SEPARATION LAYER AND INSTALL IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS INCLUDING OVERLAPS BASE ON SUB GRADE CBR.
4. CONNECT GEOBLOCK PANELS WITH THE INTERLOCKING OFFSET TAB SO THAT ADJACENT SECTIONS HAVE HORIZONTALLY LEVEL PROFILES.
5. REFER TO THE GEOBLOCK DESIGN AND CONSTRUCTION OVERVIEW FOR A COMPLETE DESCRIPTION OF THE DESIGN AND CONSTRUCTION METHODS.

**5** **GEOBLOCK STABILIZED GRASS**  
N.T.S.



6 **LOAM & SEED**  
N.T.S.

NOTE:

AREAS TO BE PLANTED SHALL CONTAIN A MINIMUM OF 6" COMPACTED DEPTH OF GOOD QUALITY LOAM AND SHALL BE SEEDDED WITH TURF GRASS OR OTHER APPROPRIATE GROUND COVER IN ACCORDANCE WITH GOOD PLANTING PRACTICE.



**Gale Associates, Inc.**  
*Engineers and Planners*

163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

## PERMIT SET

PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

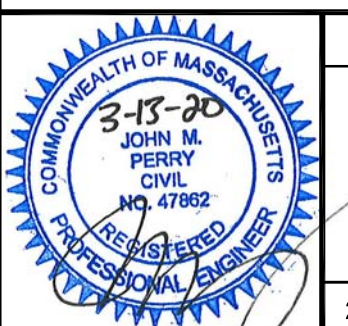
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_C500	
DESIGNED BY		DFN/KFR	
DRAWN BY		DFN/KFR	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		N.T.S.	

GRAPHIC SCALE

SHEET TITLE

DETAIL  
SHEET  
2 OF 17



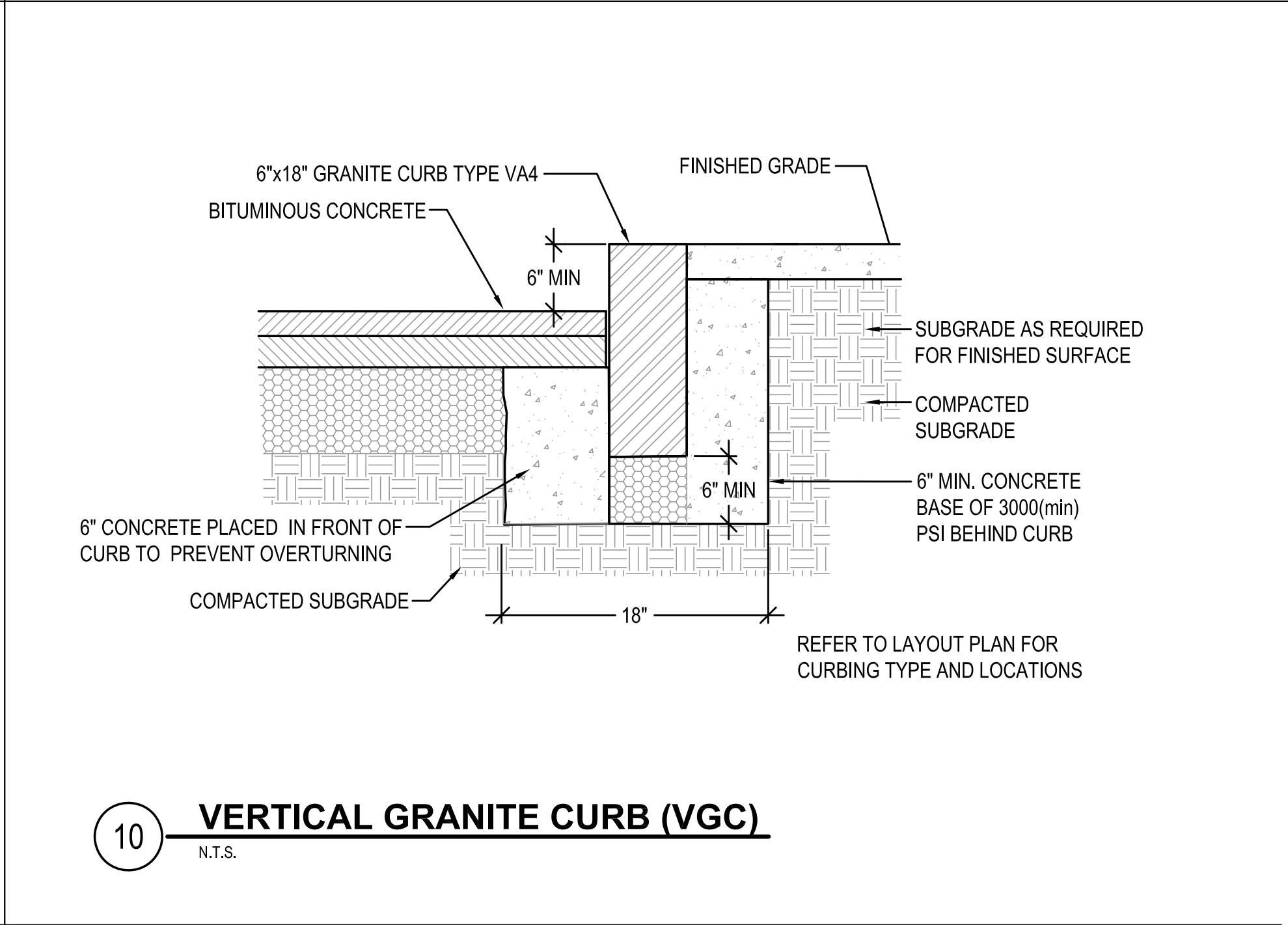
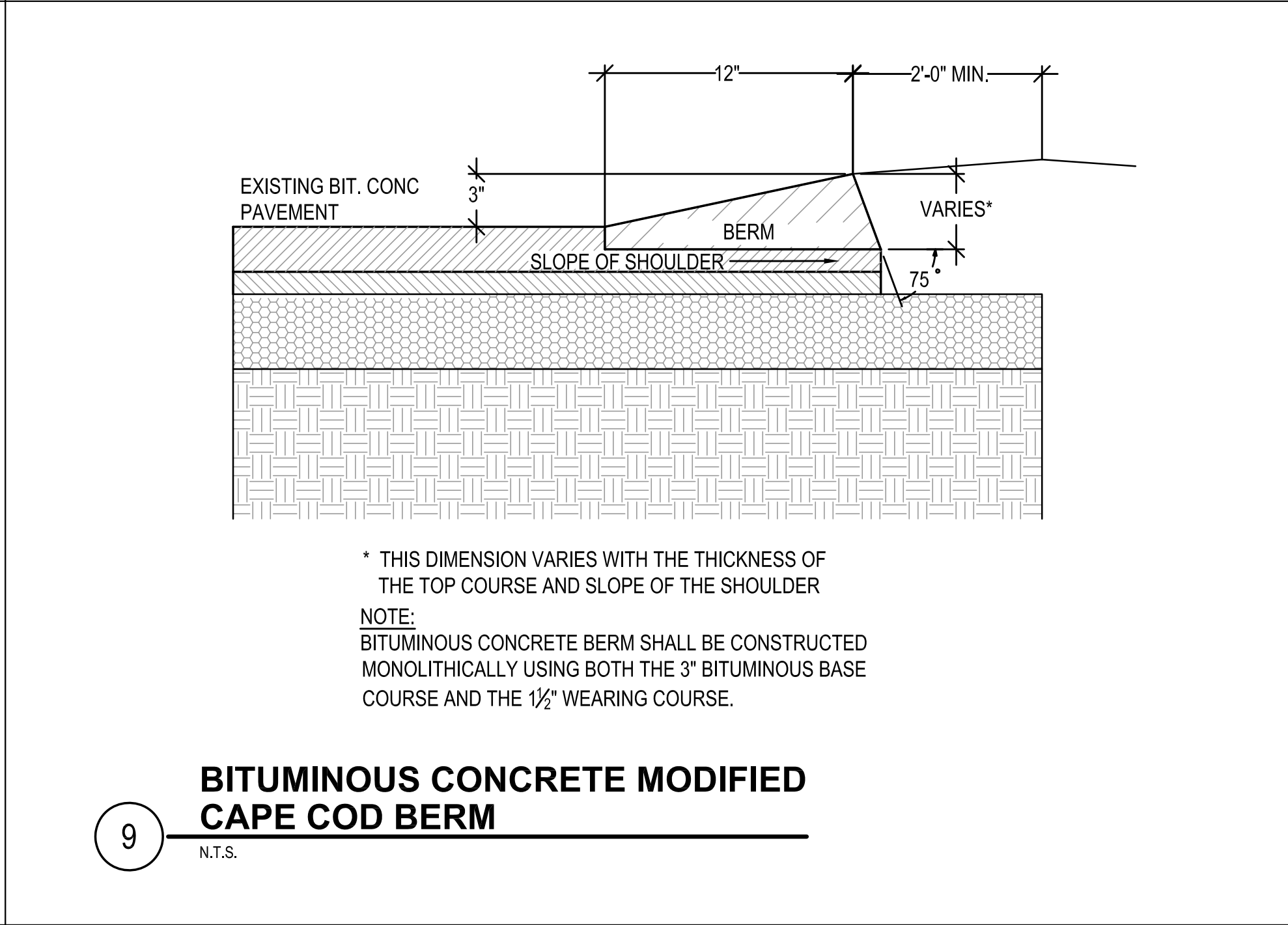
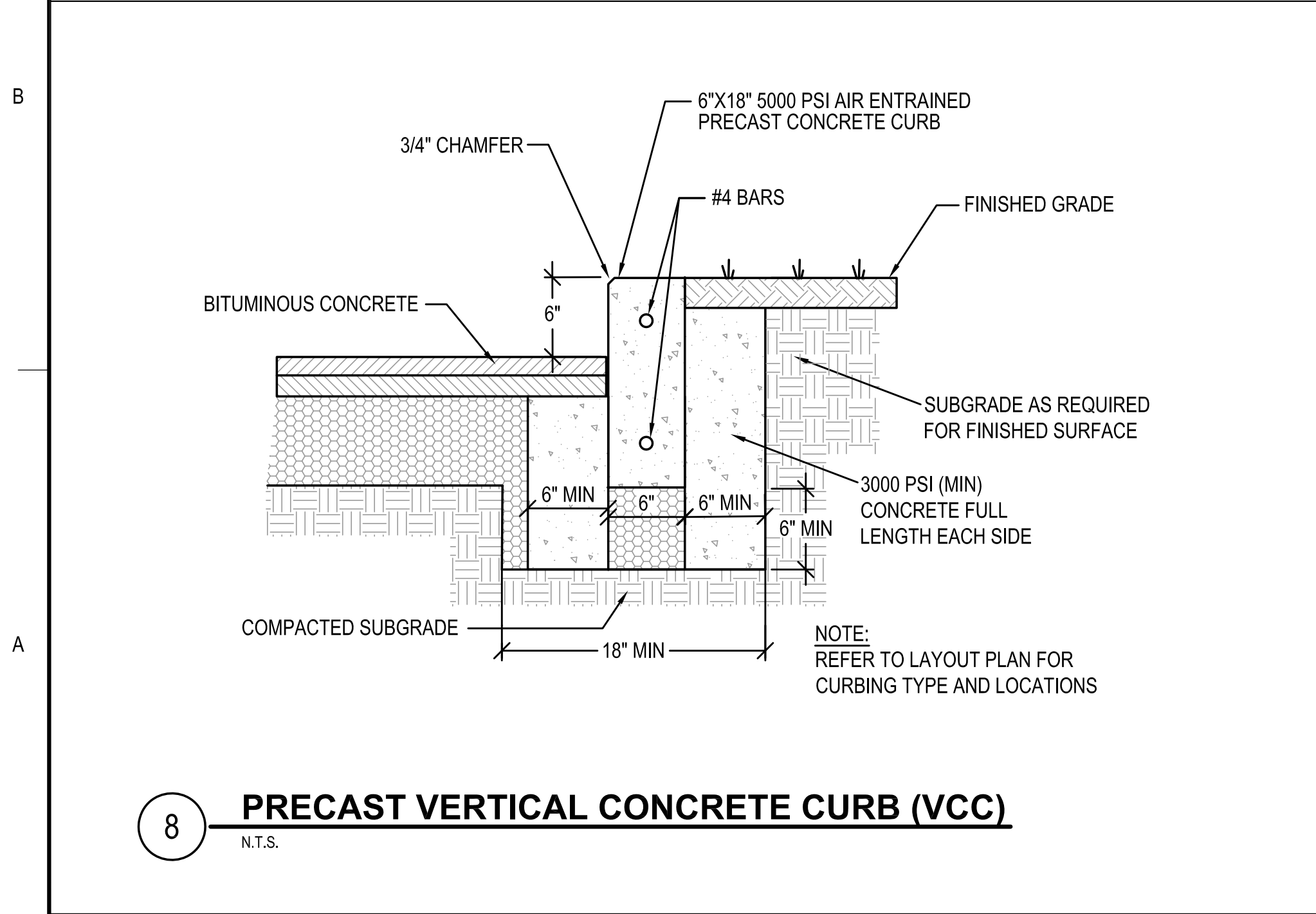
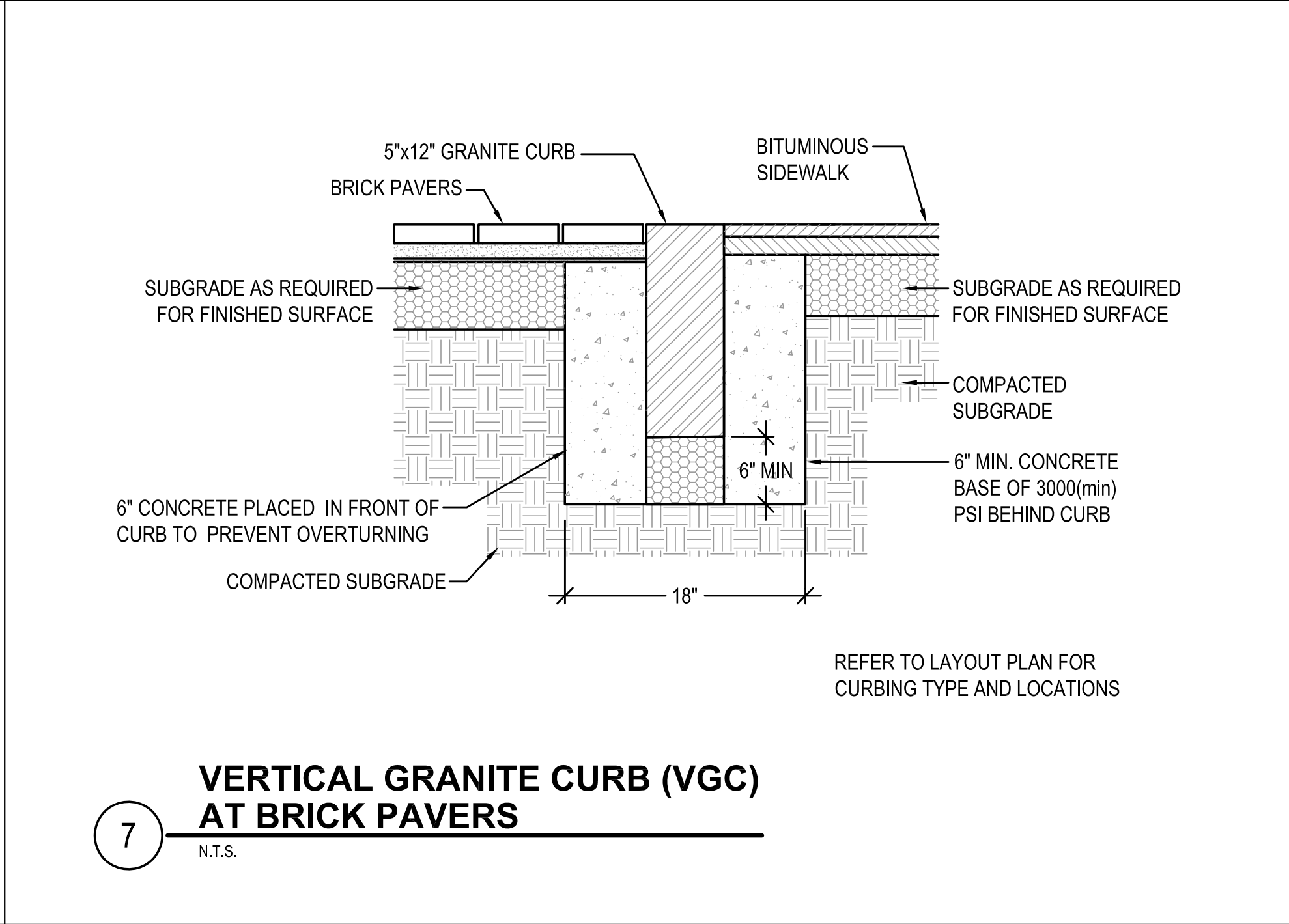
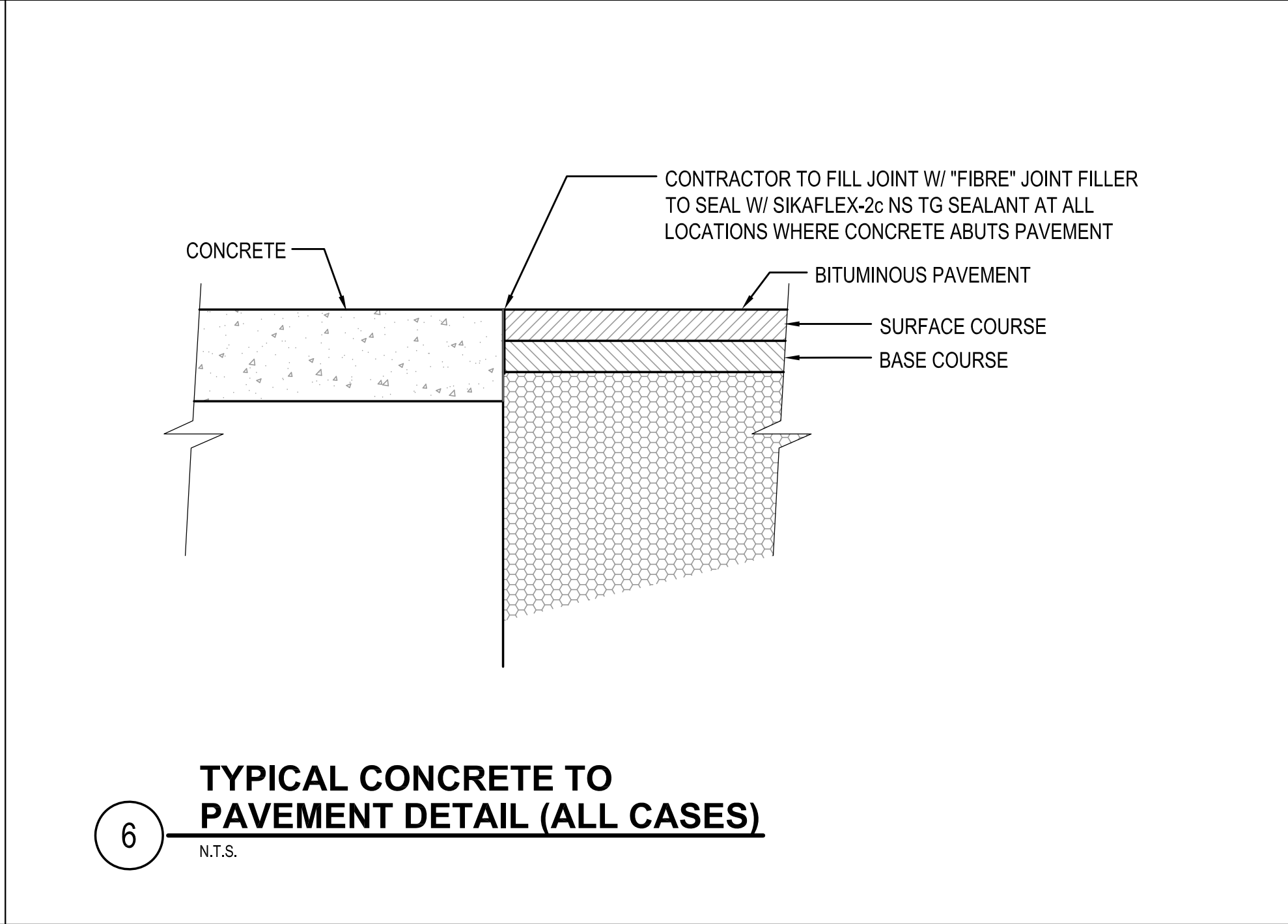
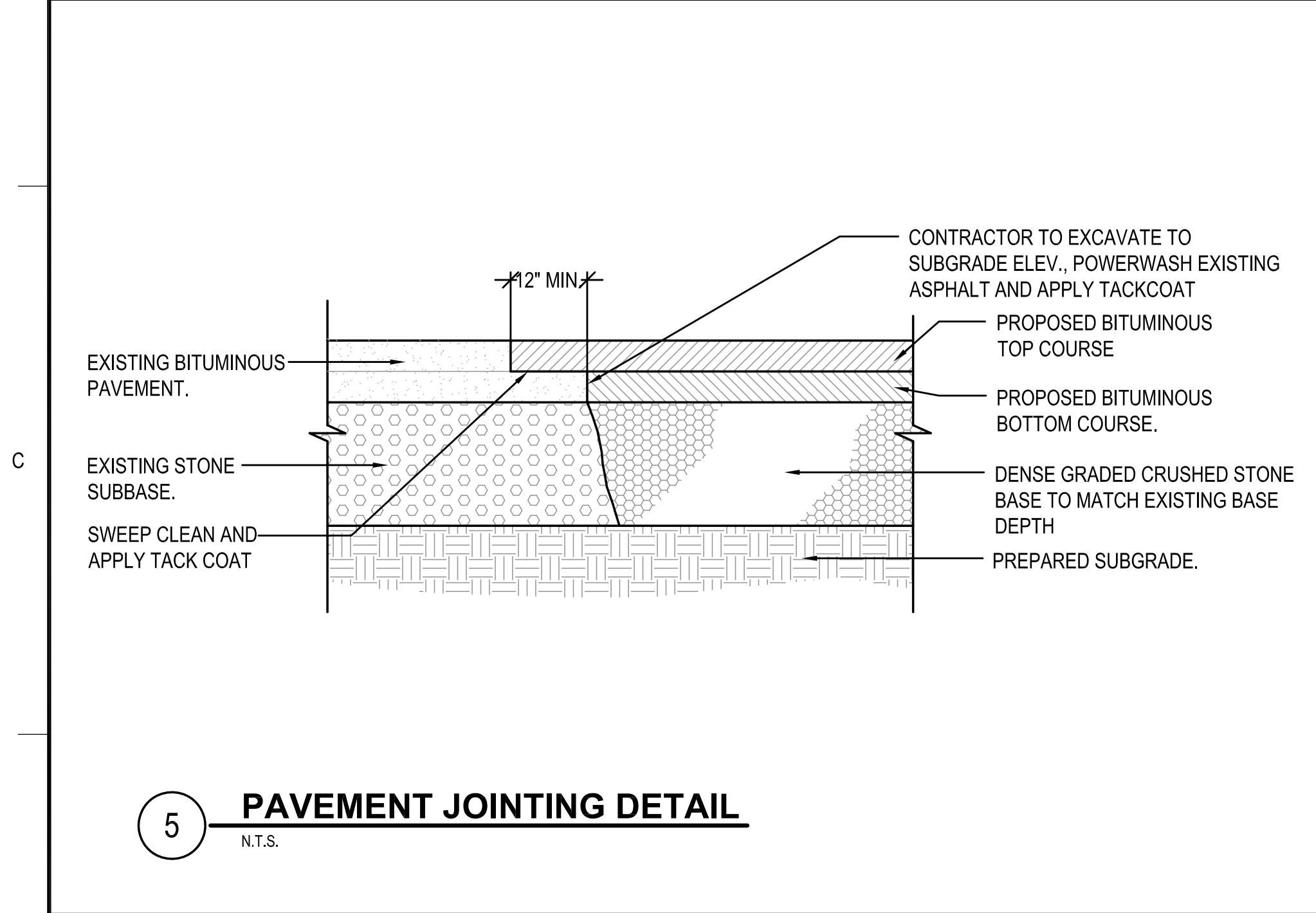
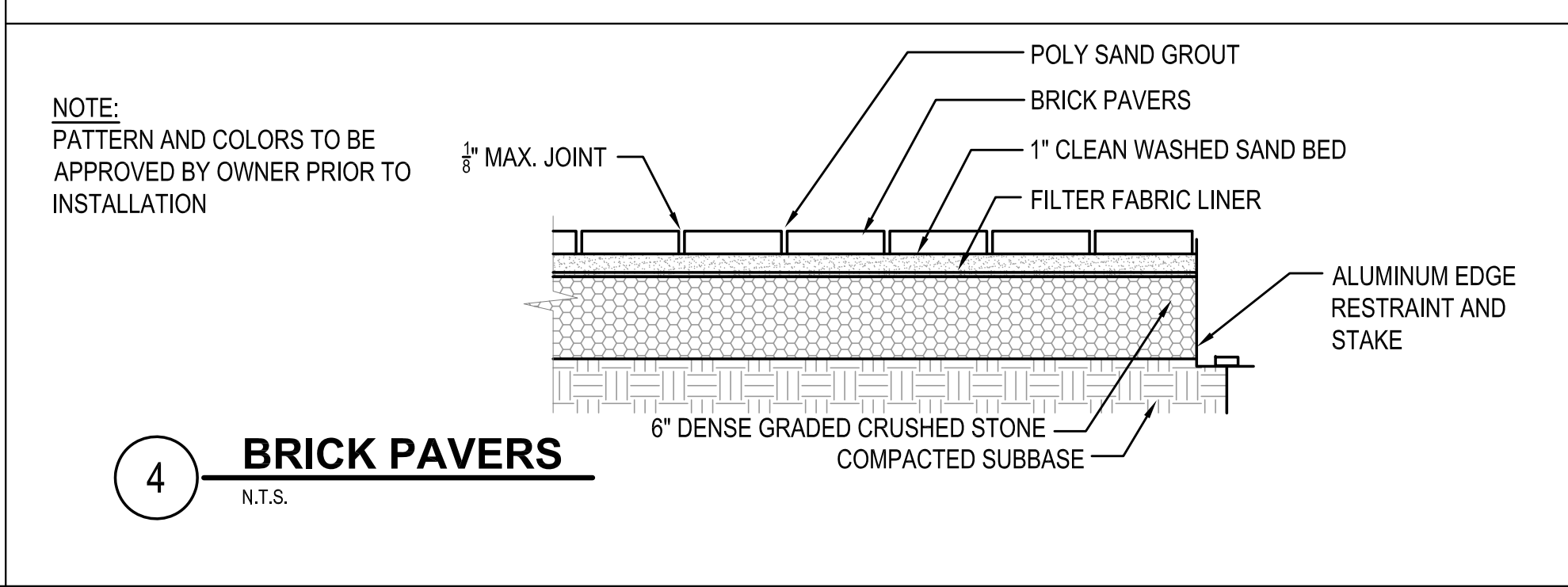
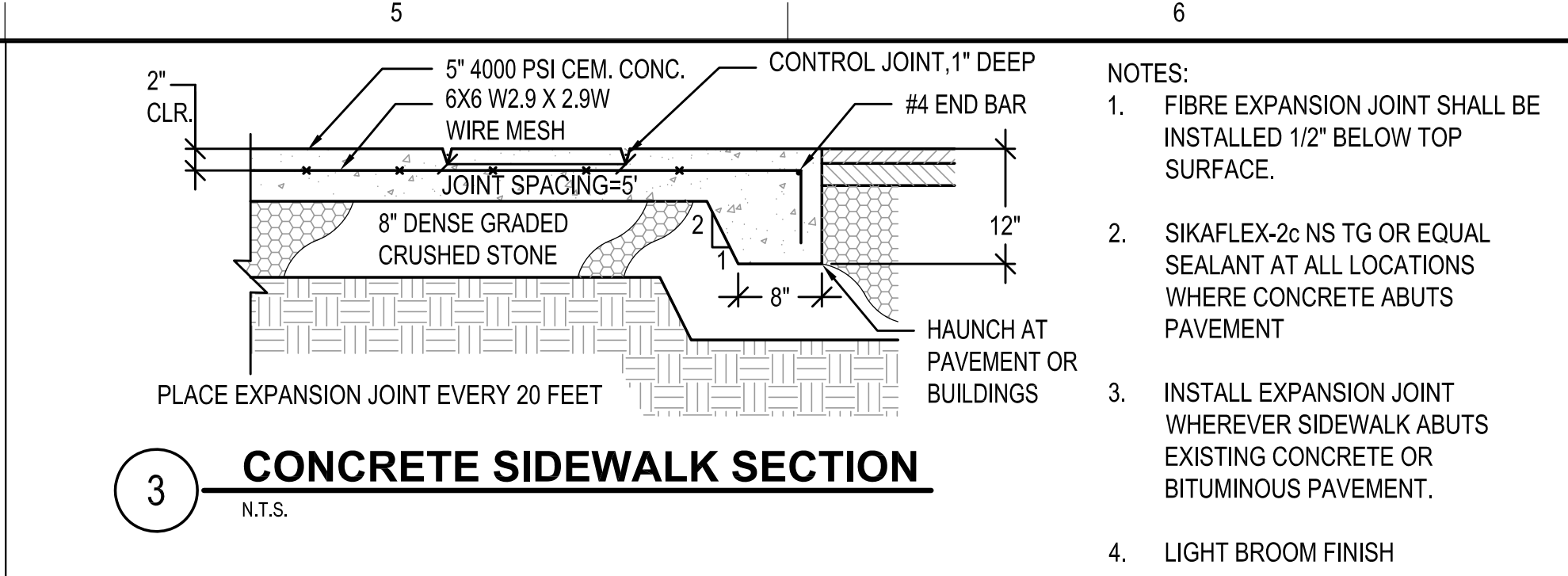
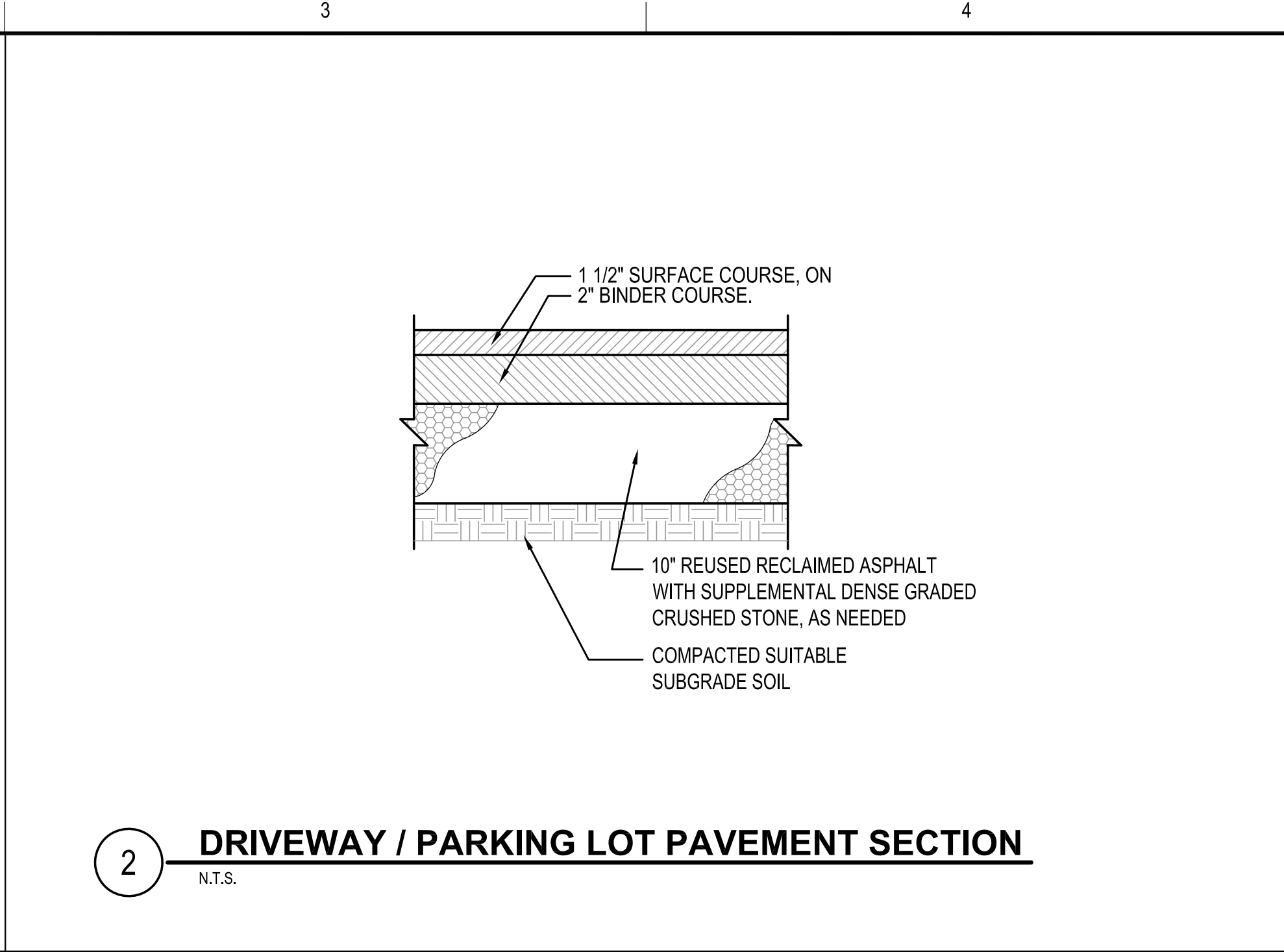
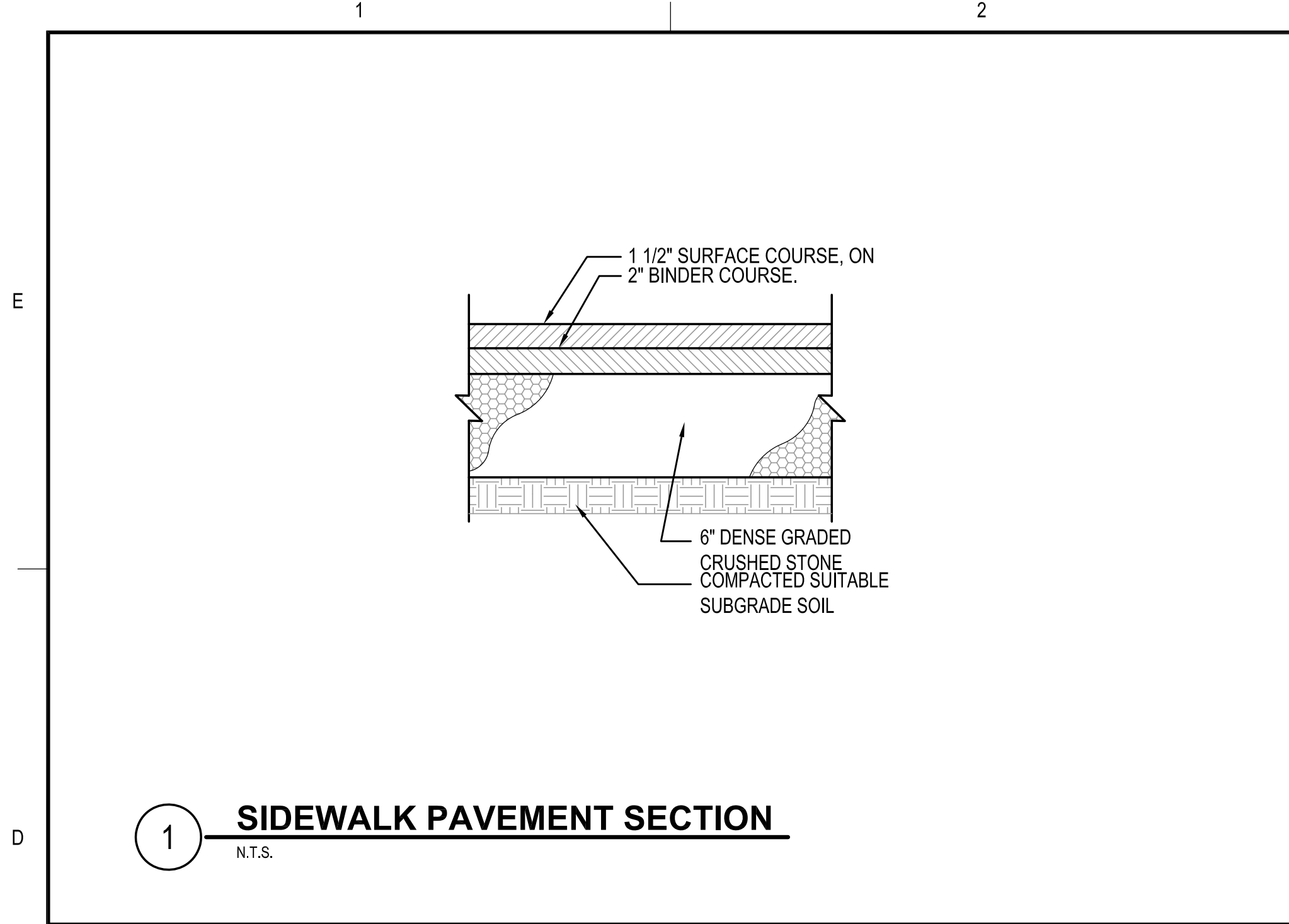
DRAWING NO.

C502

21 OF 55



F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C500.dwg, 3/12/2020 1:14:03 PM, dfn, Adobe PDF



**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com

Boston   Baltimore   Orlando   Hartford   Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

PERMIT SET

PROJECT

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

OWNER

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C500		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

DETAIL  
SHEET  
3 OF 17

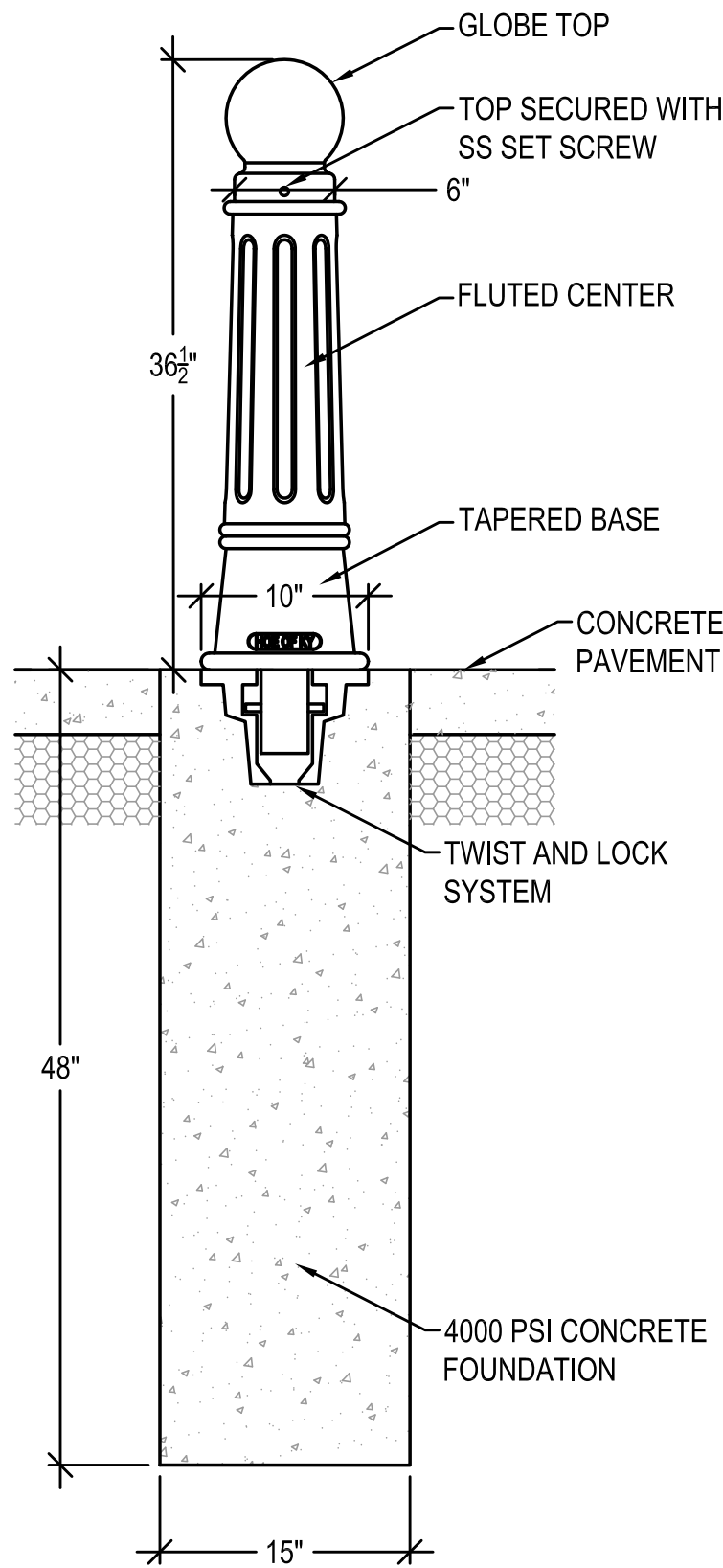
DRAWING NO.  
**C503**

22 OF 55

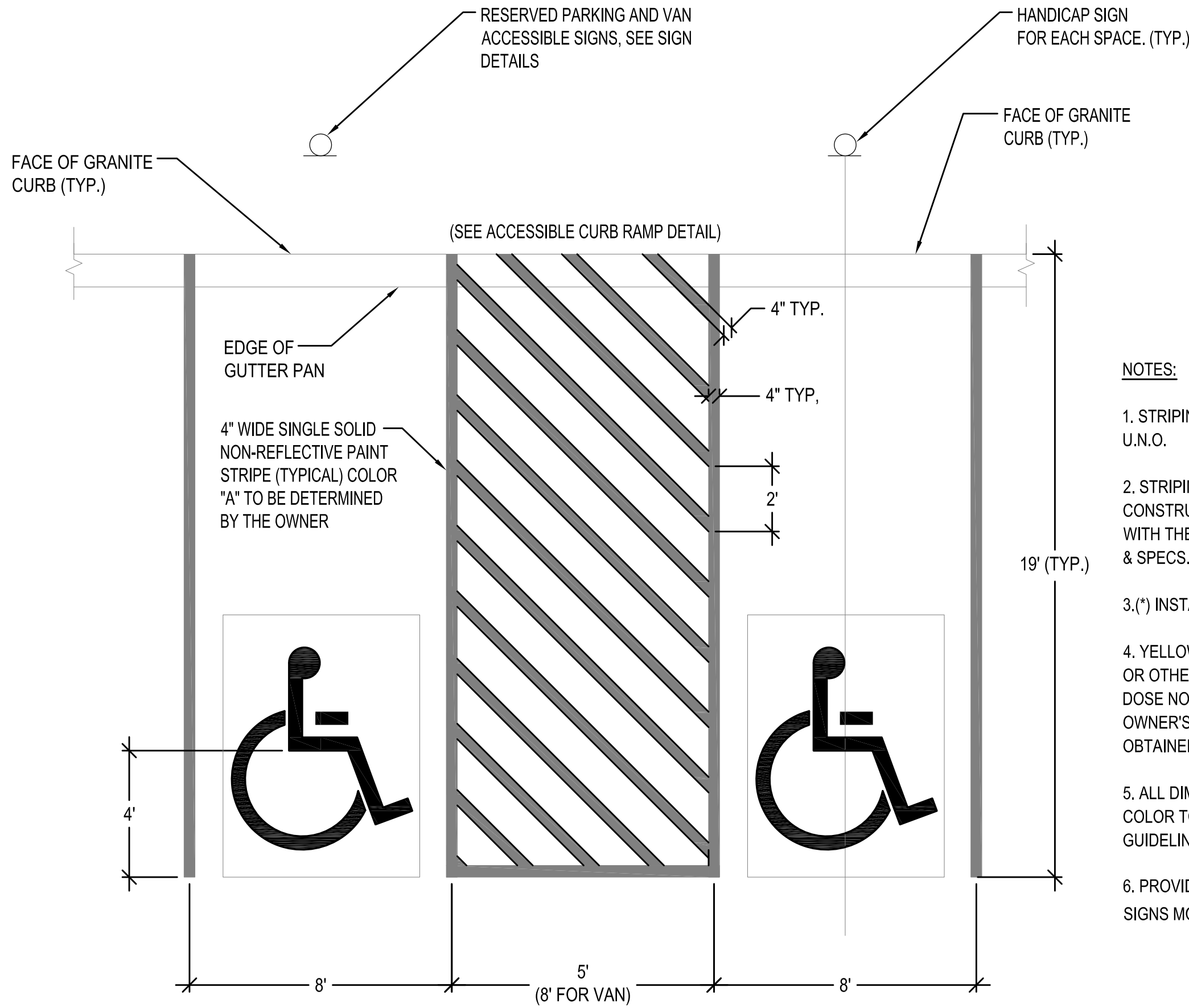


F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C500.dwg, 3/12/2020 1:13:26 PM, dfn, Adobe PDF

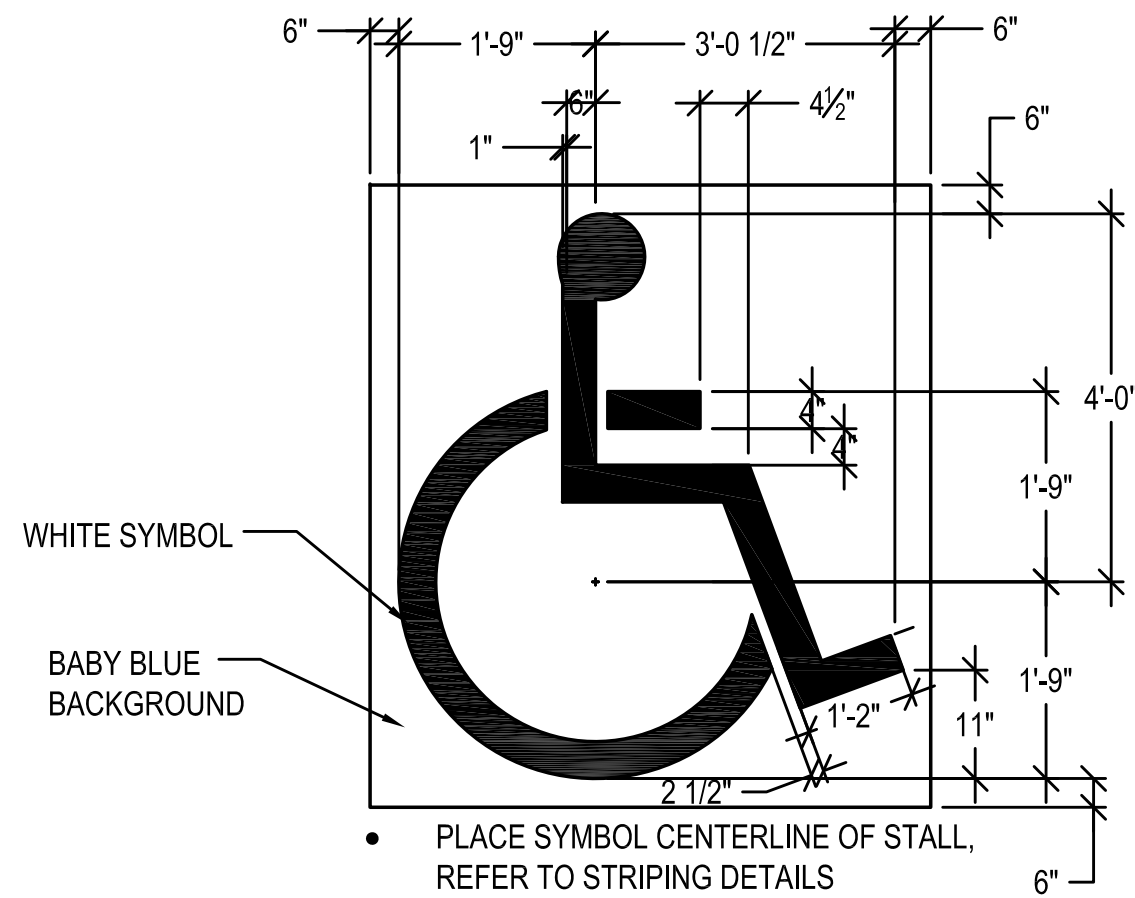
PRODUCT:  
J.R. HOE AND SONS, G-SERIES 150-GTF  
"TWIST AND LOCK" REMOVABLE BOLLARD



1 **REMOVABLE BOLLARD**  
N.T.S.



2 **HANDICAP PARKING STRIPING**  
N.T.S.



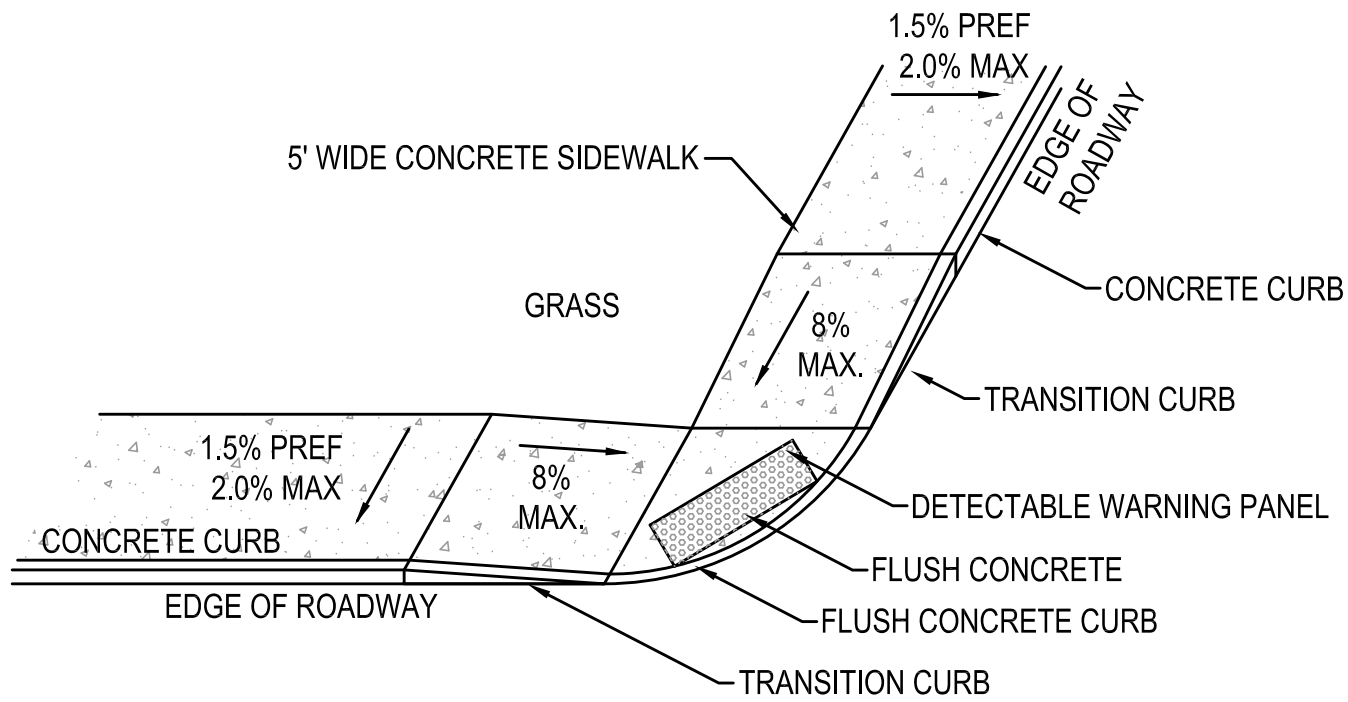
**NOTE:**  
1. THIS DETAIL PROVIDED FOR REFERENCE ONLY!  
ALL DEMENSIONS, LAYOUT, BACKGROUNDS AND COLOR MUST BE  
CONFORM TO MOST CURRENT ADA GUIDELINES

3 **HANDICAP SYMBOL LAYOUT**  
N.T.S.

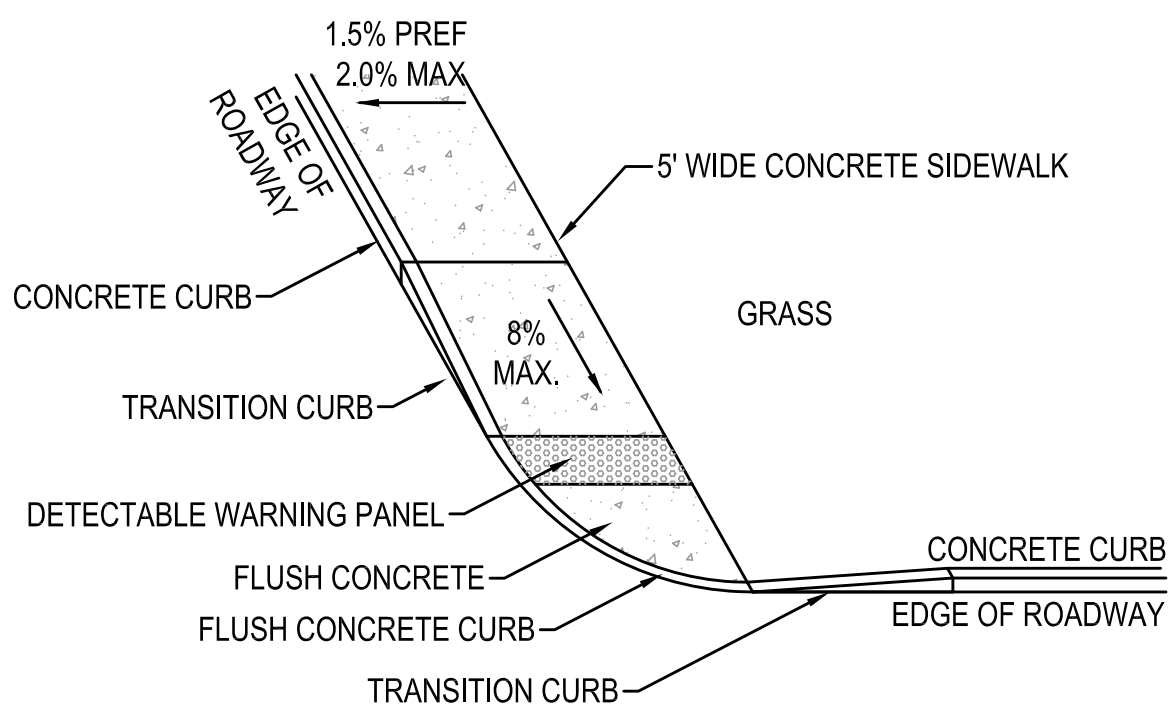


**NOTES:**  
1. SIGN SHALL BE INSTALLED 2-1/2" SCHED 40 GALVANIZED POST  
2. FASTEN TO POST WITH 5/8" GALV. BOLTS  
3. PROVIDE "VAN" RIDER WHERE APPLICABLE

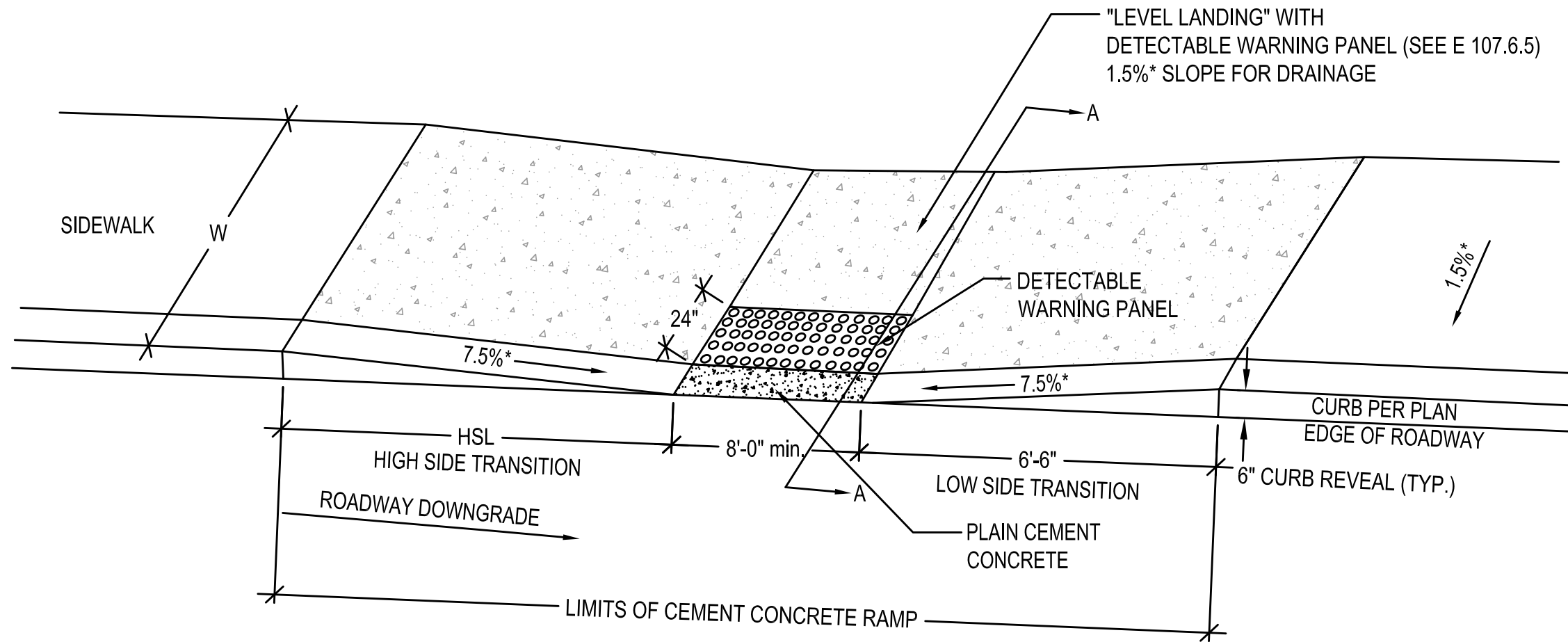
4 **HANDICAP SIGN**  
N.T.S.



5 **CURB RAMP (1)**  
N.T.S.

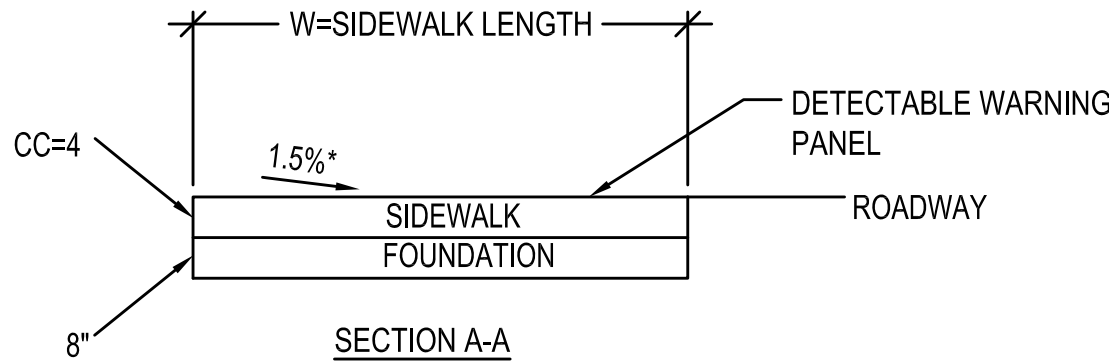


6 **CURB RAMP (2)**  
N.T.S.



**LEGEND**  
HSL =HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)  
W =SIDEWALK WIDTH  
CC =CEMENT TOLERANCE  
\* =TOLERANCE FOR CONSTRUCTION 0.5%  
USABLE SIDEWALK WIDTH PER AAB=W-Wc  
USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"  
SEE E 107.6.5 FOR DETAILS OF DETECTABLE WARNING PANELS

**NOTE:**  
ROADWAY, GUTTER, AND FIRST 6"  
OF SIDEWALK TO BE ADJUSTED  
FOR FIELD CONDITIONS



7 **ACCESSIBLE CURB RAMP**  
N.T.S.



**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

**PERMIT SET**

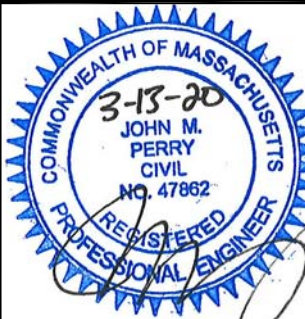
**PROJECT**  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527  
**OWNER**  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C500		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

**DETAIL  
SHEET  
4 OF 17**



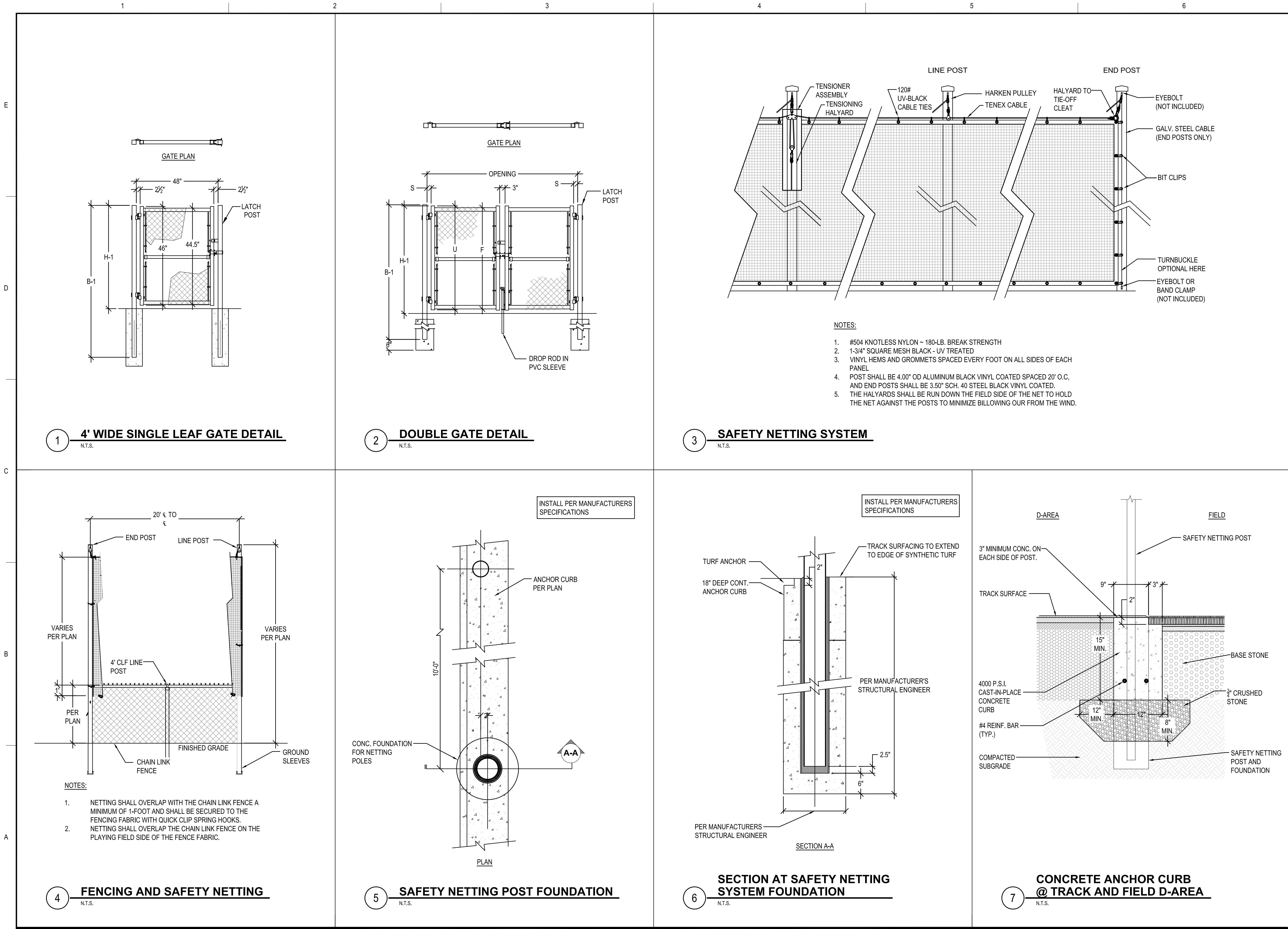
**DRAWING NO.**  
**C504**  
23 OF 55







F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C500.dwg, 3/12/2020 11:12:16 PM, dfn, Adobe PDF



**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

**PERMIT SET**

**PROJECT**  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

**OWNER**  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C500		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

**DETAIL SHEET**  
6 OF 17

DRAWING NO.  
**C506**

25 OF 55





MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

**MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527**

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_C500	
DESIGNED BY		DFN/KFR	
DRAWN BY		DFN/KFR	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		N.T.S.	

GRAPHIC SCALE

SHEET TITLE

DETAIL  
SHEET  
7 OF 17

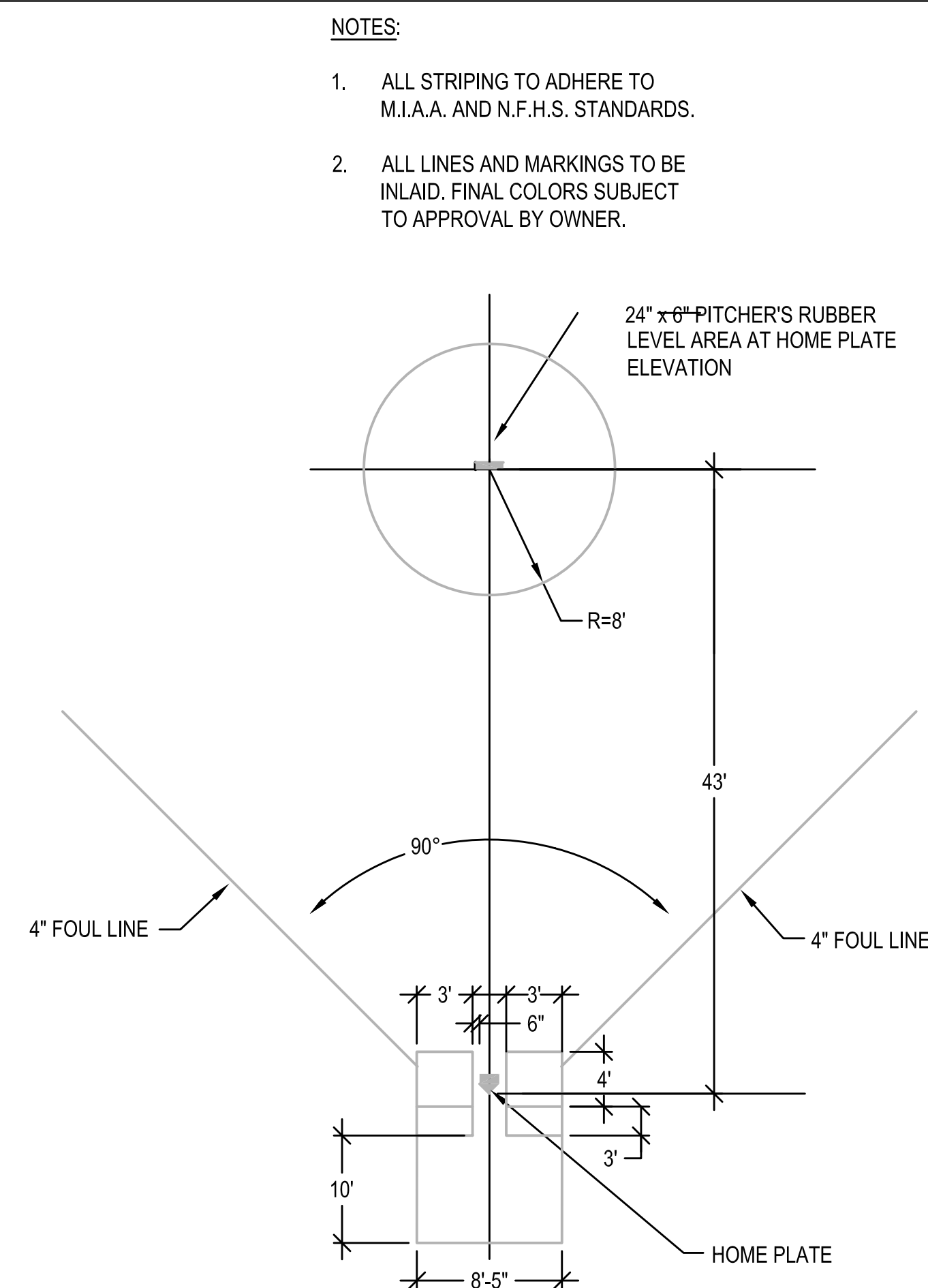
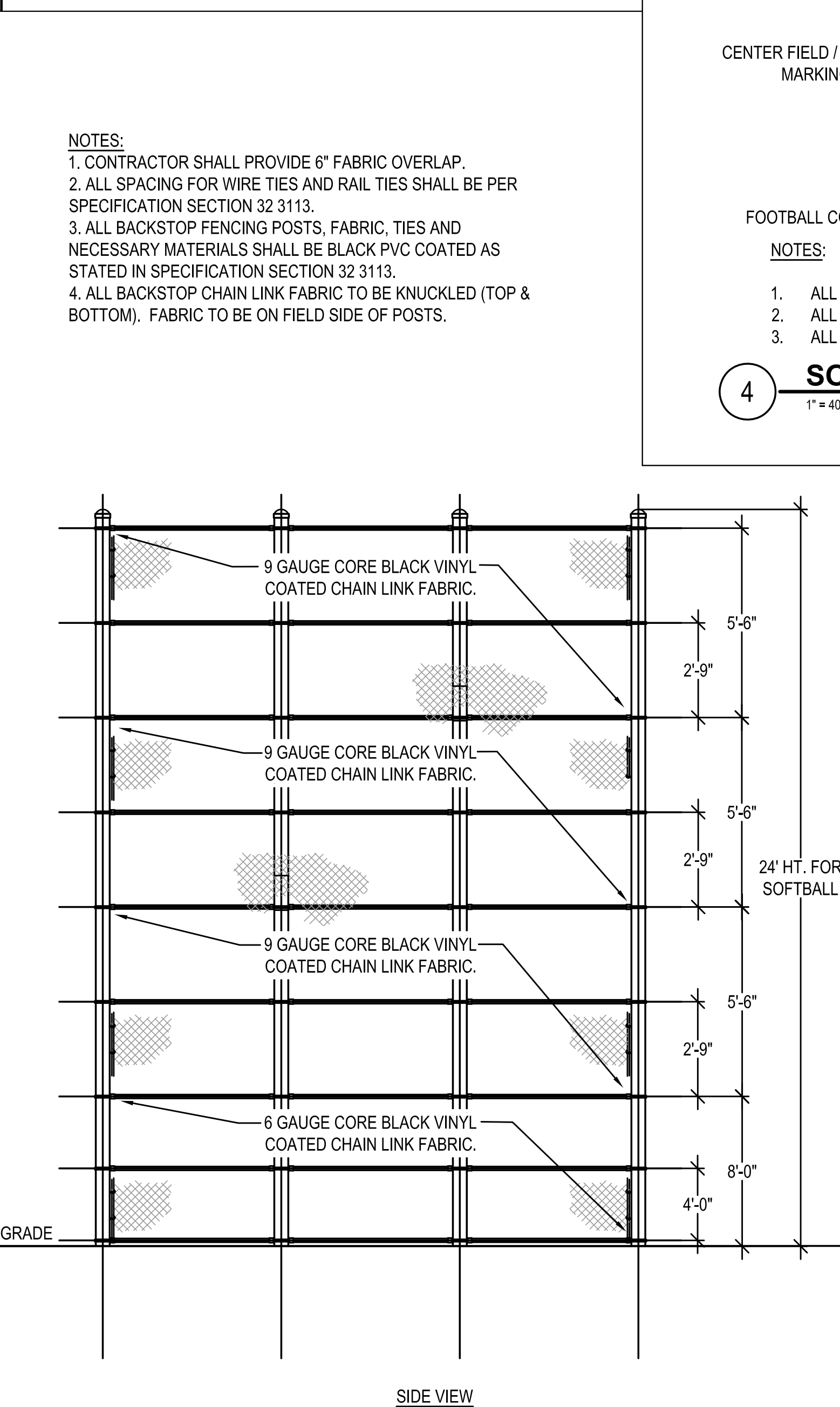
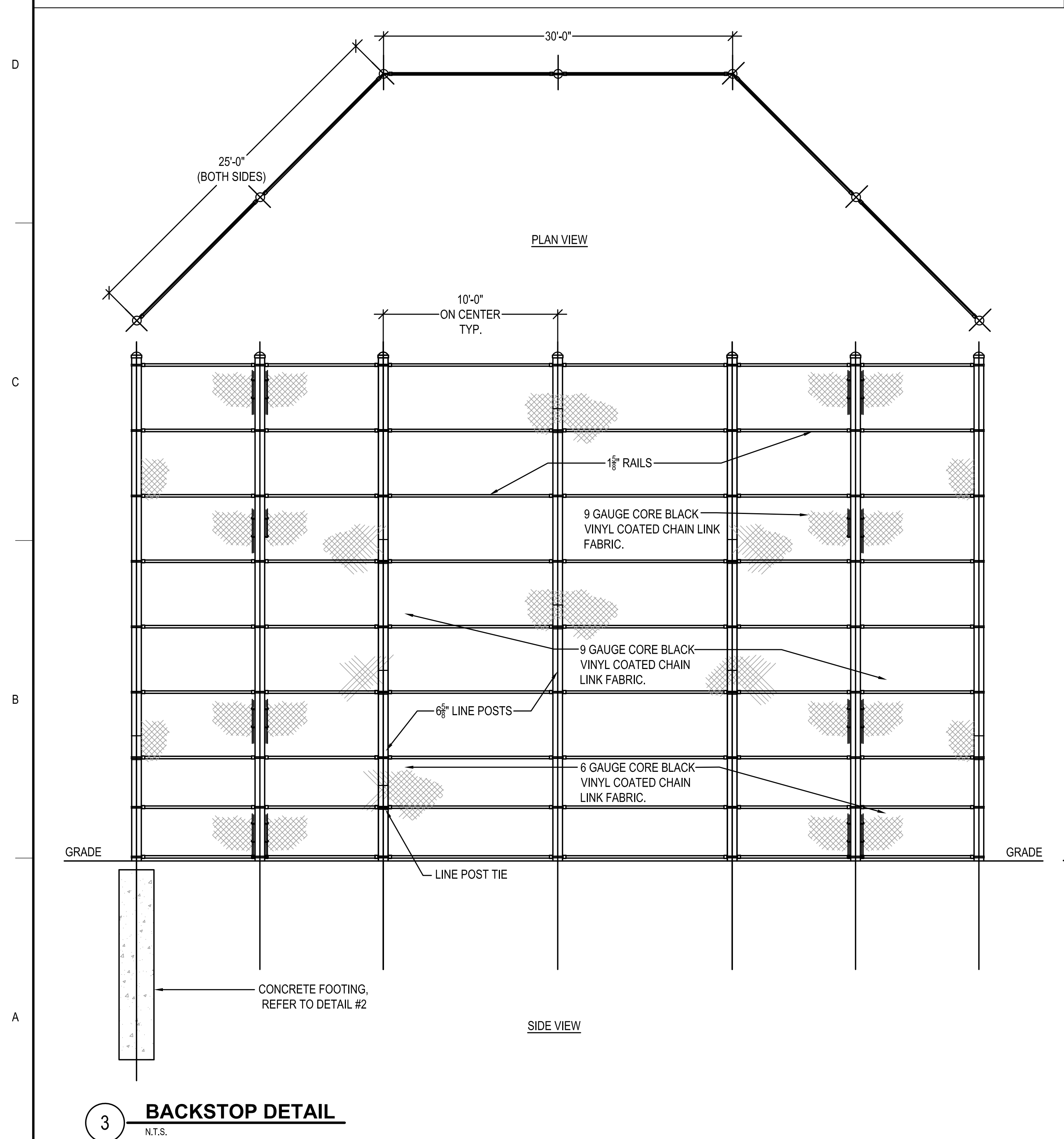
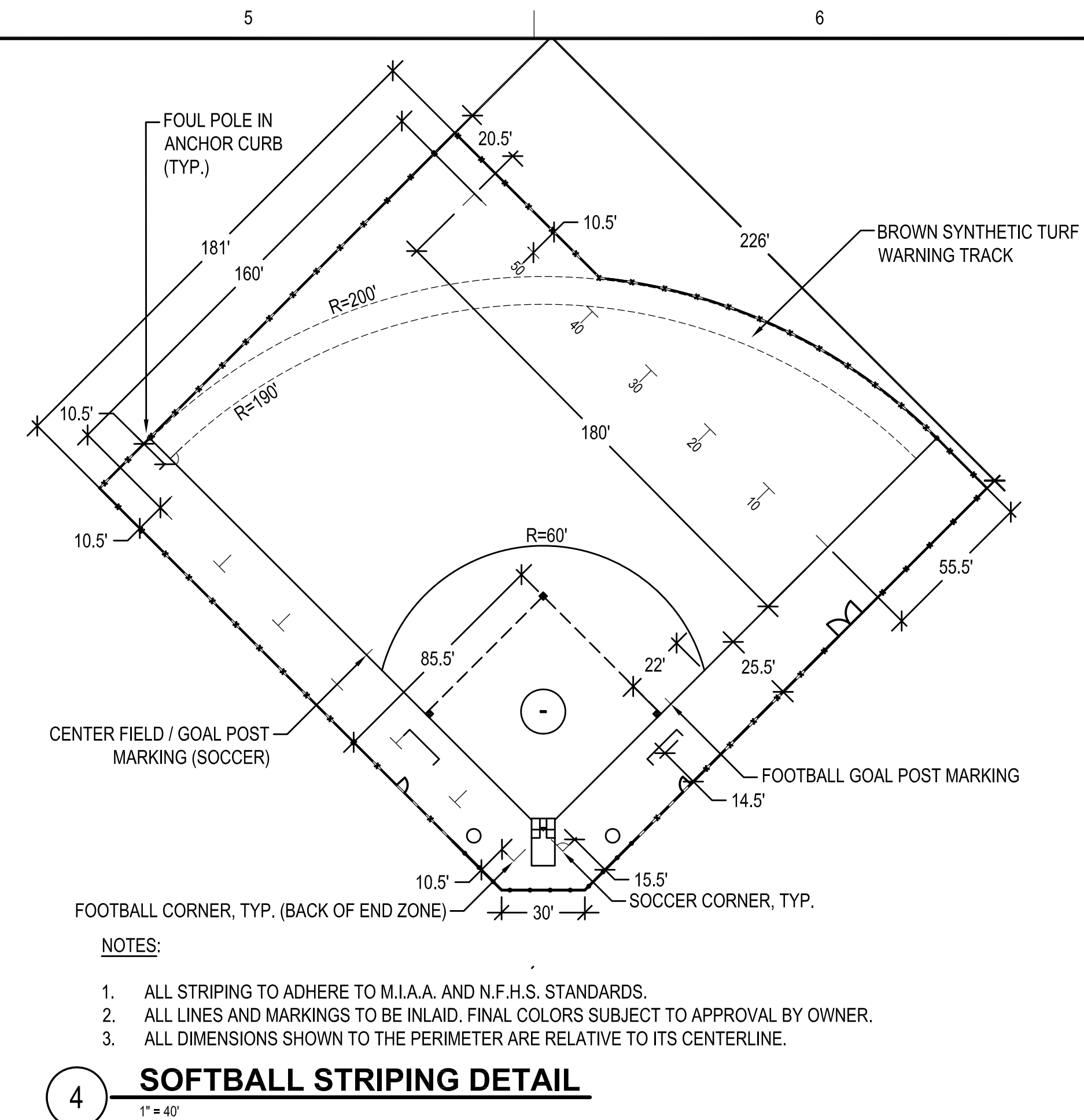
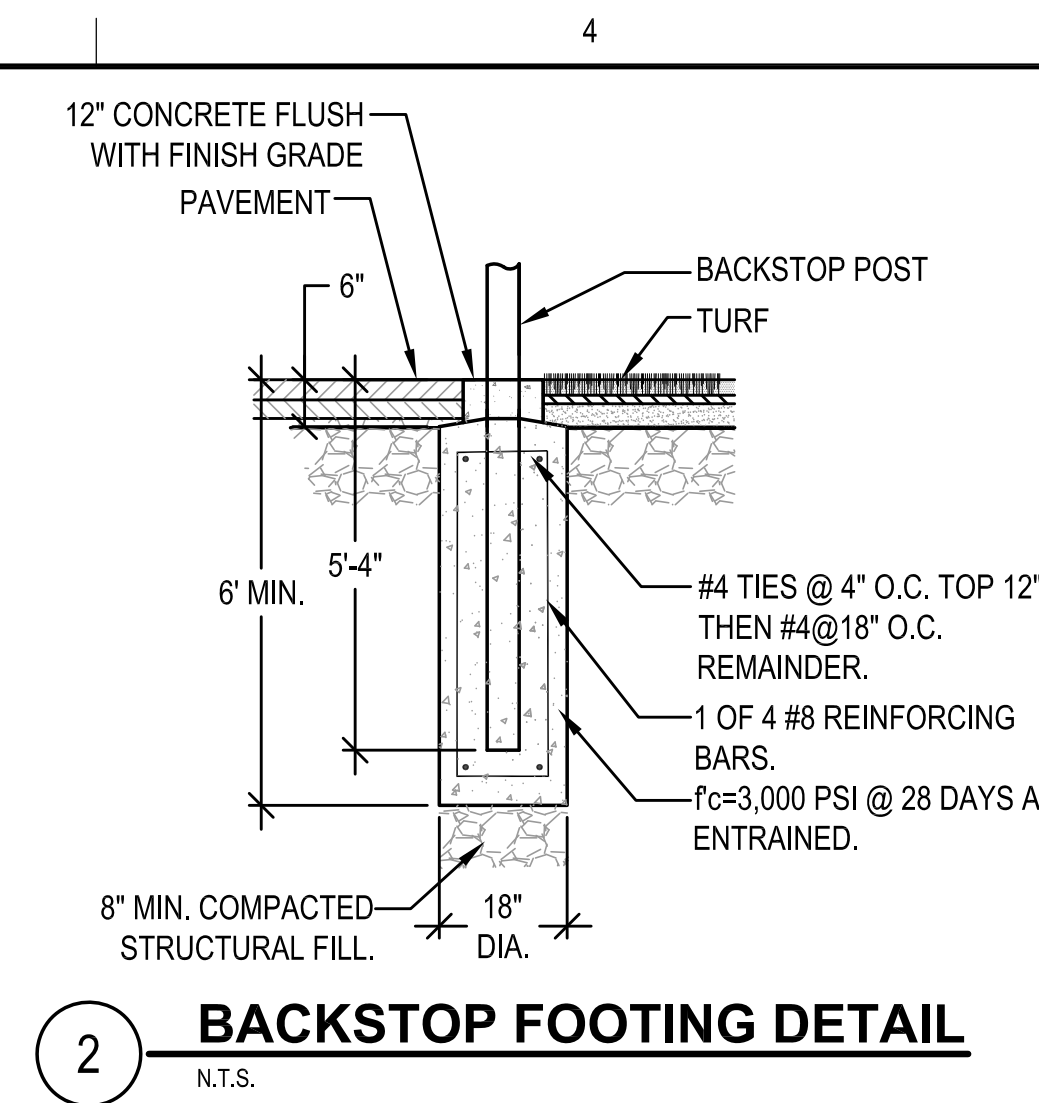
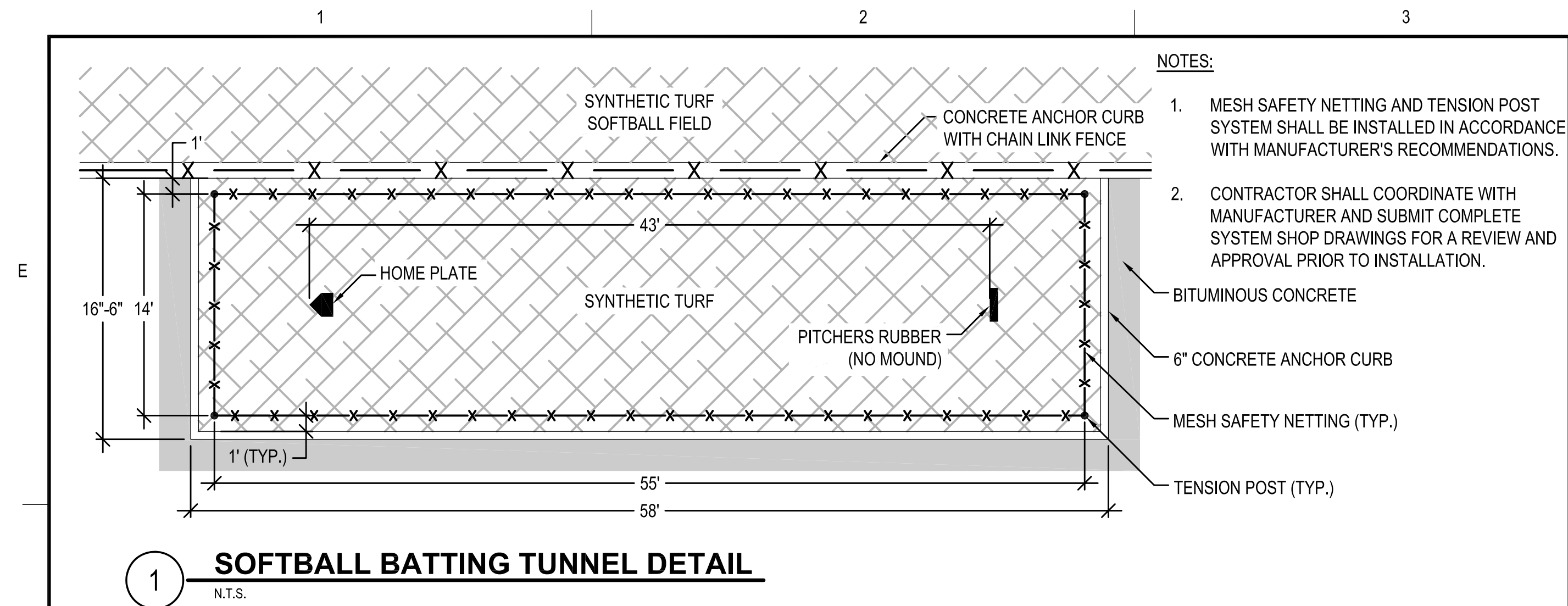


DRAWING NO.

C507

6 OF 55





**Gale Associates, Inc.**  
*Engineers and Planners*

163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
[www.gainc.com](http://www.gainc.com)

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

## PERMIT SET

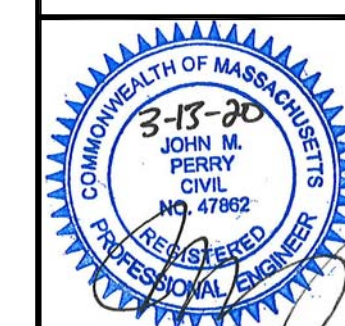
PROJECT	MILLBURY JUNIOR/SENIOR HIGH SCHOOL ATHLETIC CAMPUS RENOVATIONS 12 MARTIN STREET MILLBURY, MA 01527
OWNER	MILLBURY PUBLIC SCHOOLS 12 MARTIN STREET MILLBURY, MA 01527

NO.	DATE	DESCRIPTION			BY
		PROJECT NO.			716383
		CADD FILE			716383-C500
		DESIGNED BY			DFNIKFR
		DRAWN BY			DFNIKFR
		CHECKED BY			JMP
		DATE			03/13/2020
		DRAWING SCALE			N.T.S.

GRAPHIC SCALE

SHEET TITLE

DETAIL  
SHEET  
8 OF 17



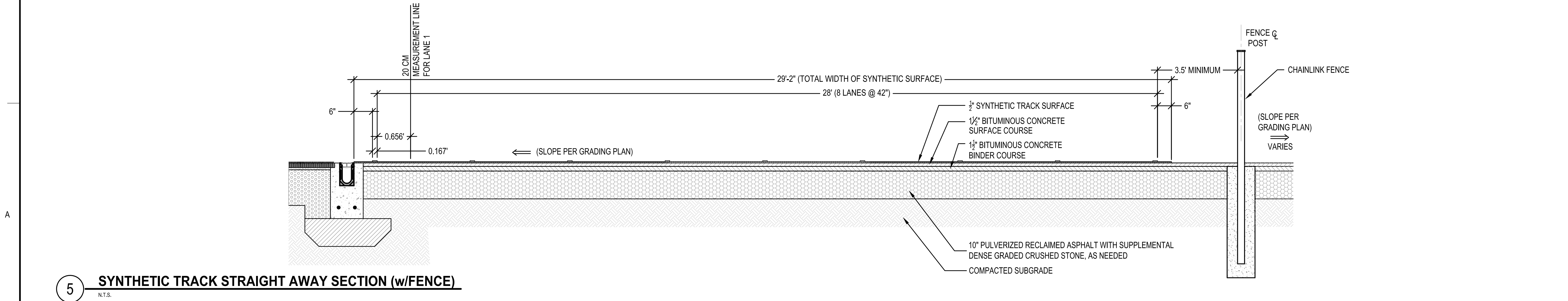
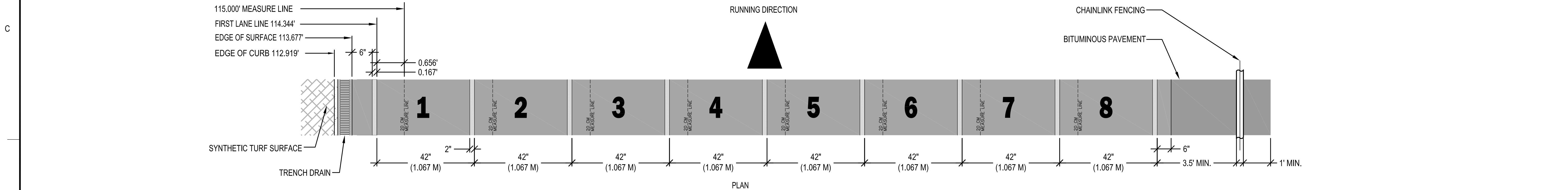
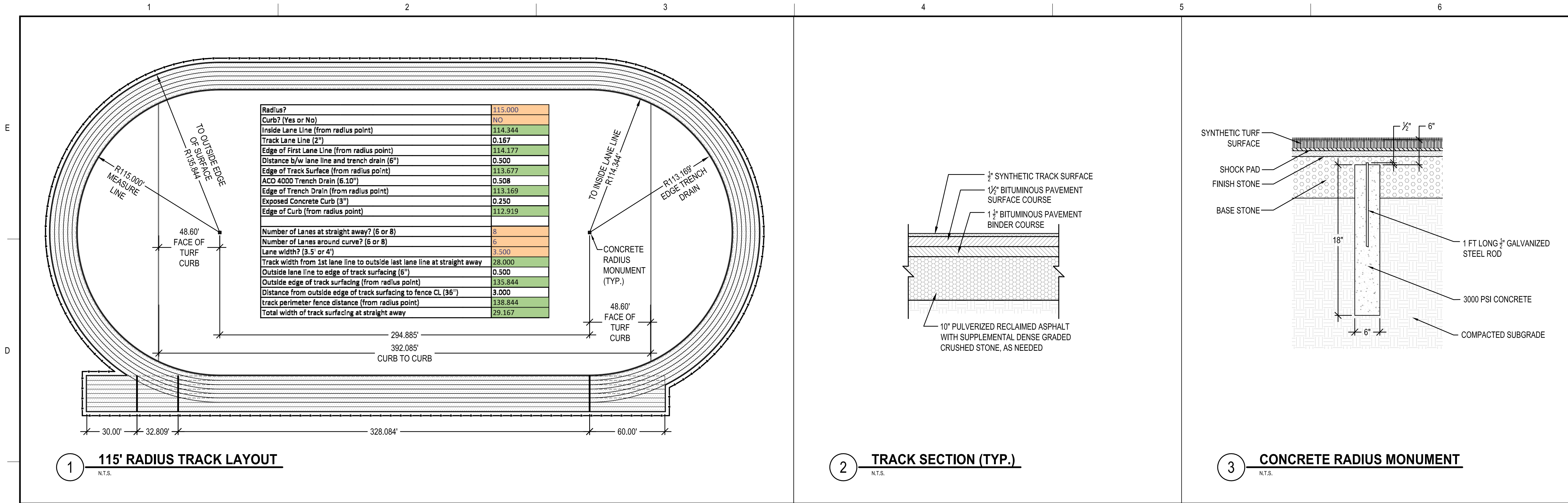
DRAWING NO.

C508

27 OF 55



F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C500.dwg, 3/12/2020 1:09:49 PM, dfn, Adobe PDF



Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

PERMIT SET

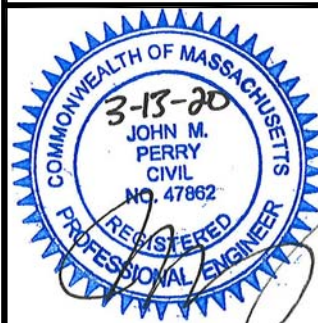
PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527  
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C500		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

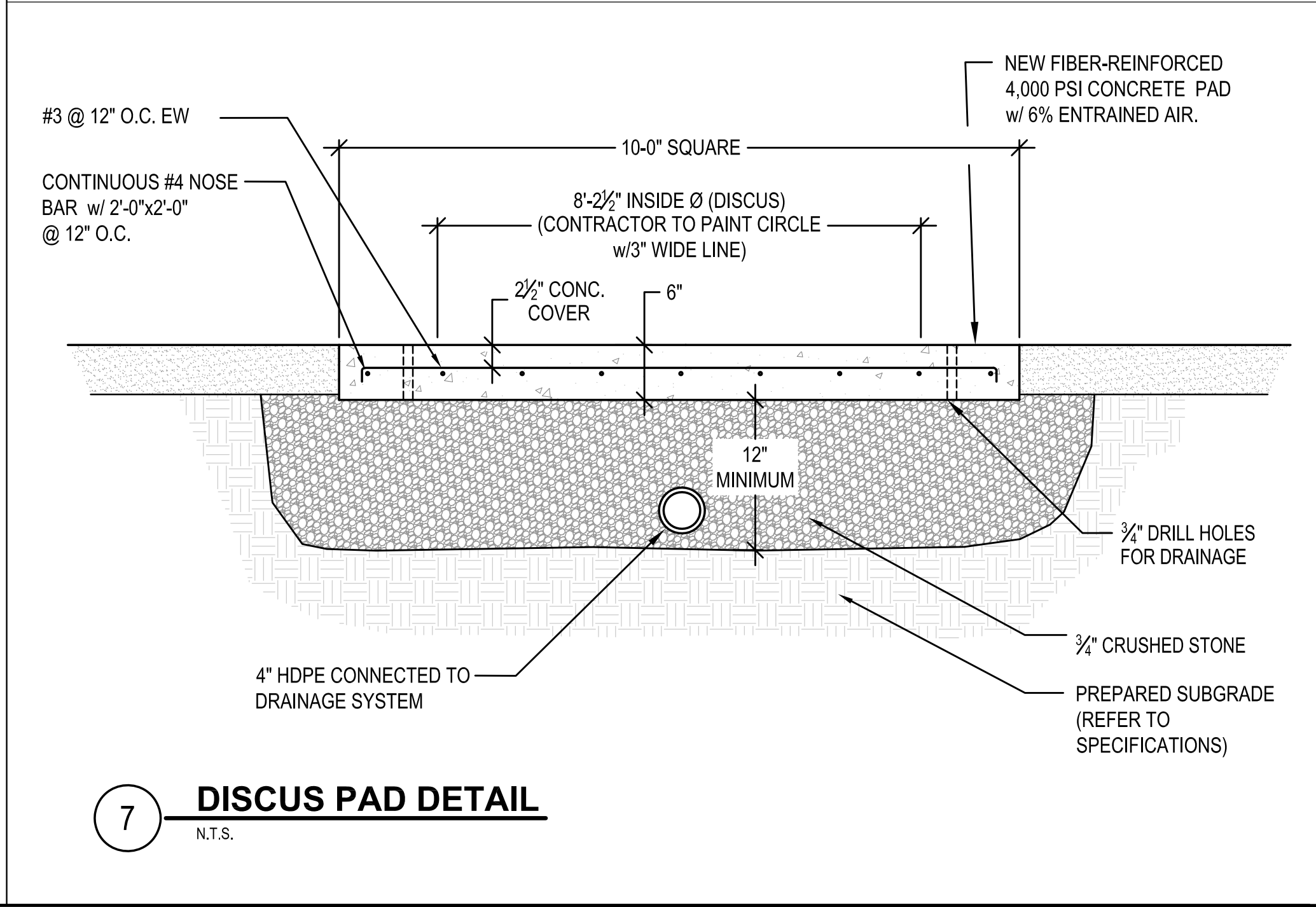
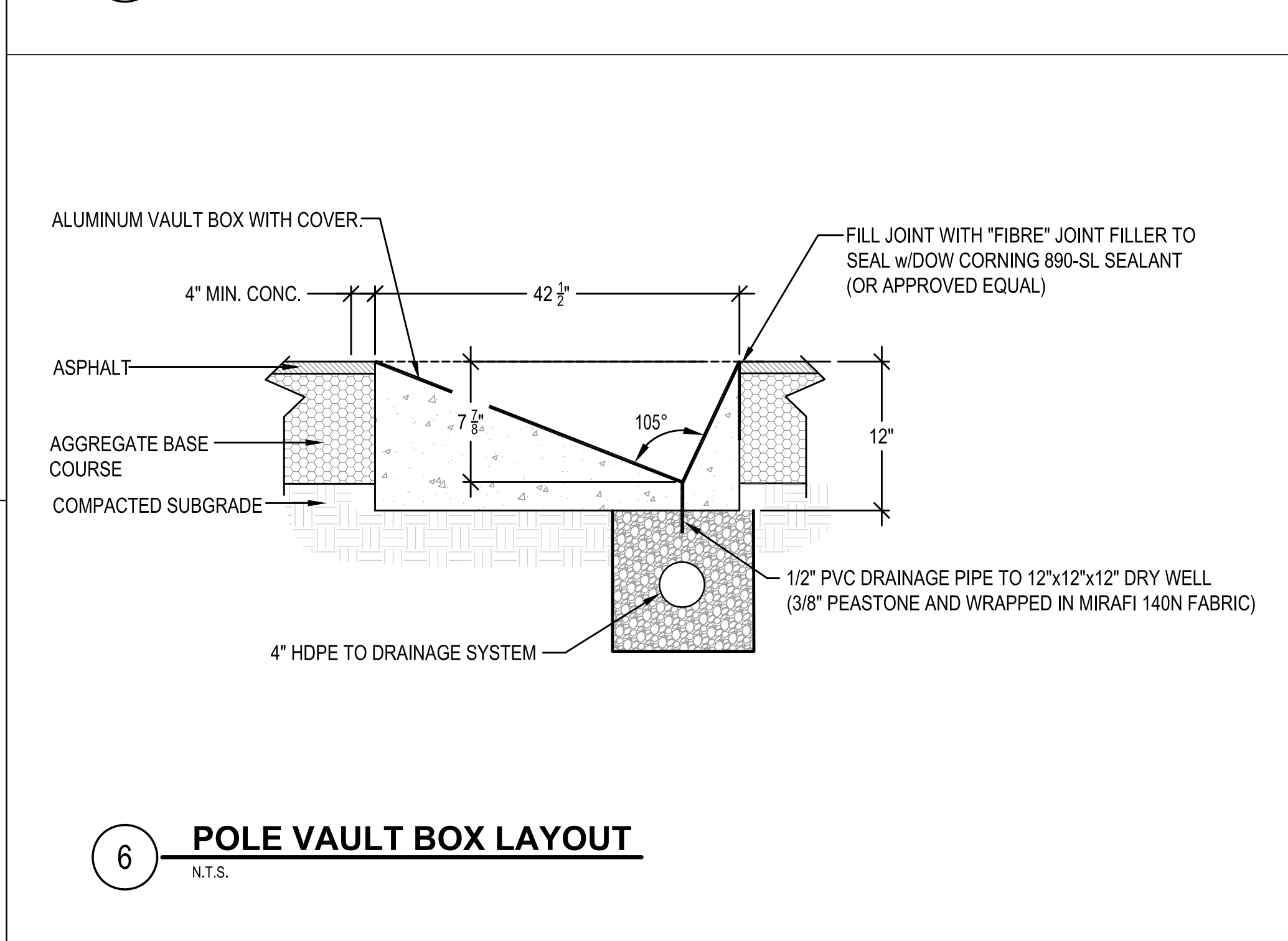
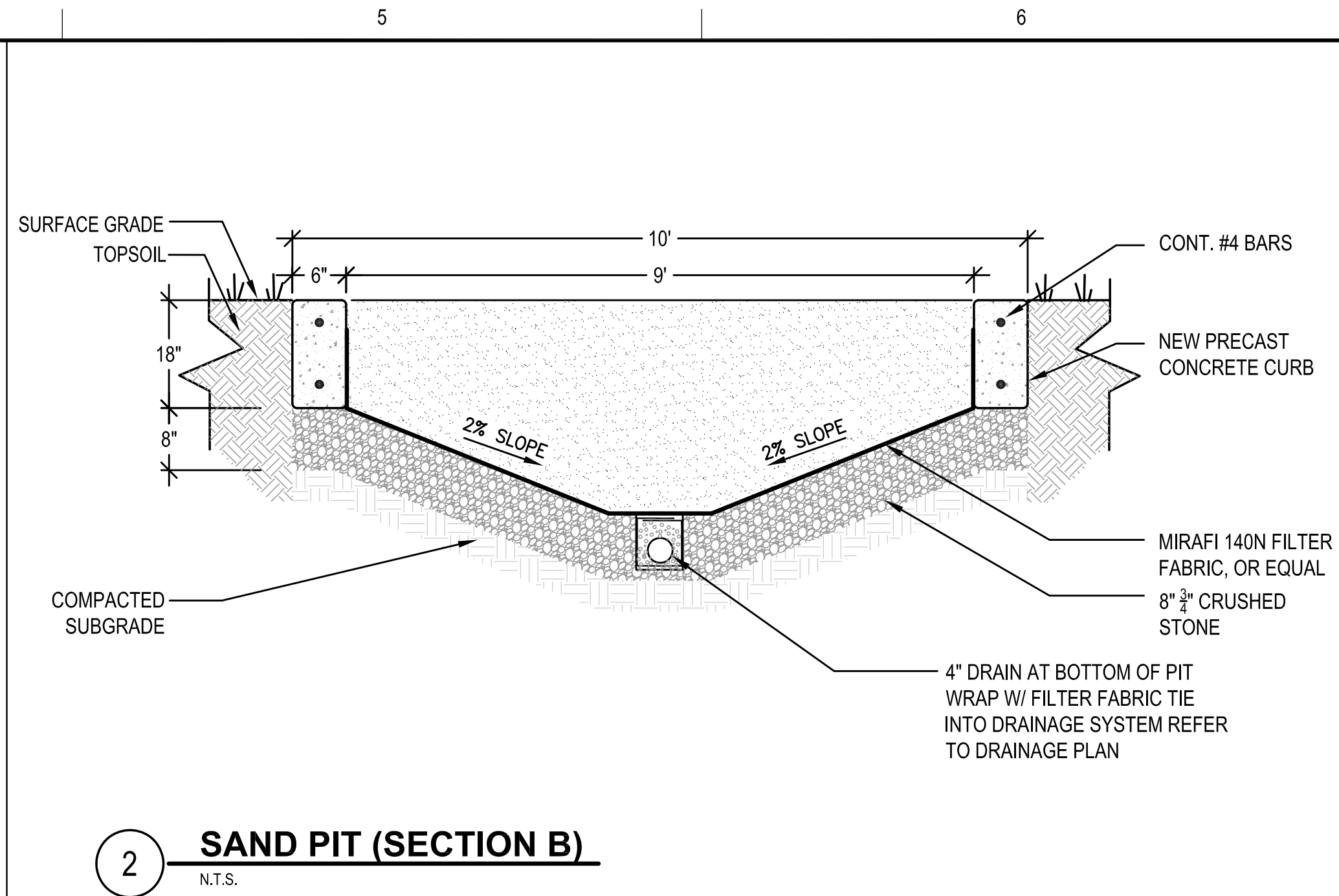
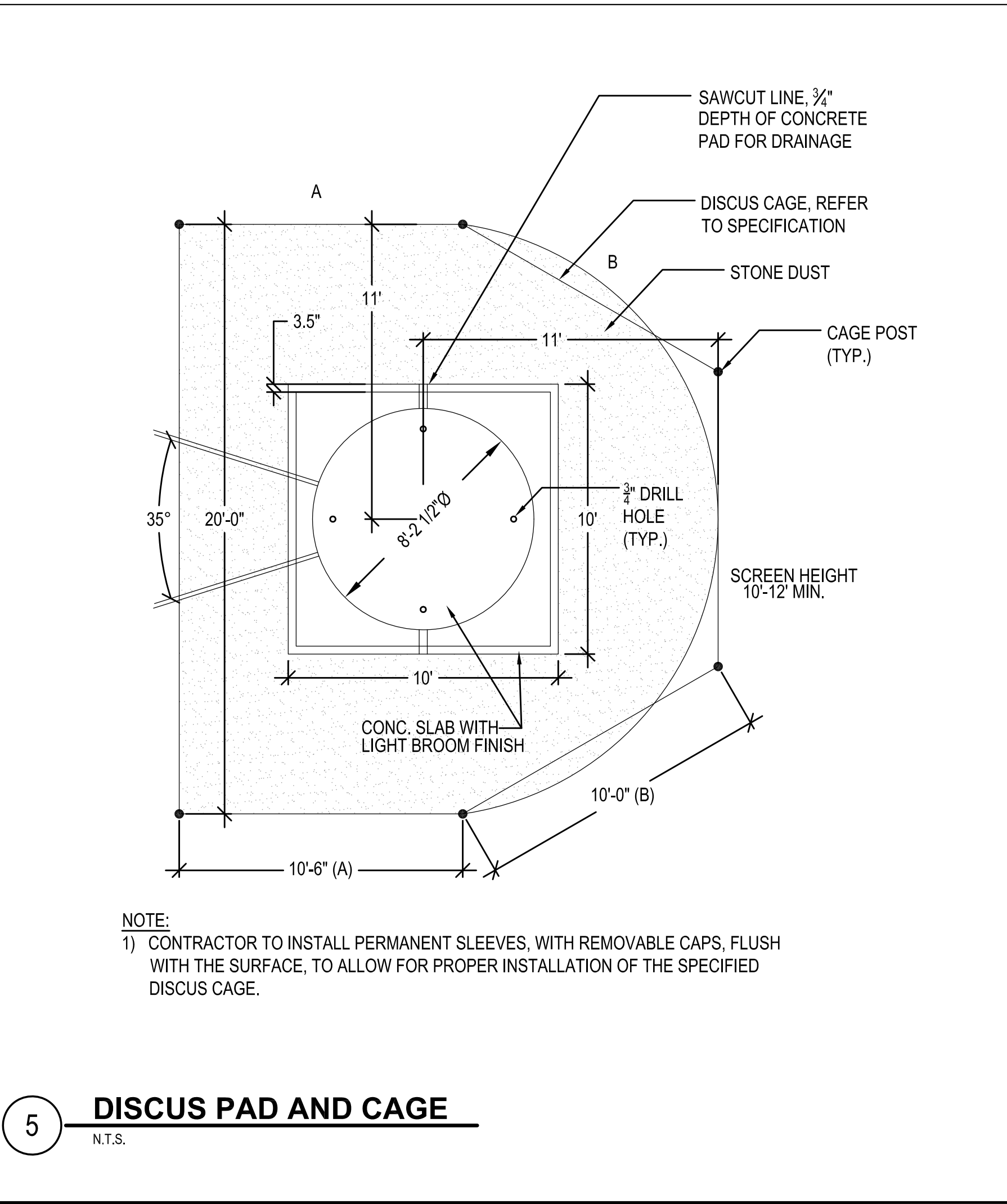
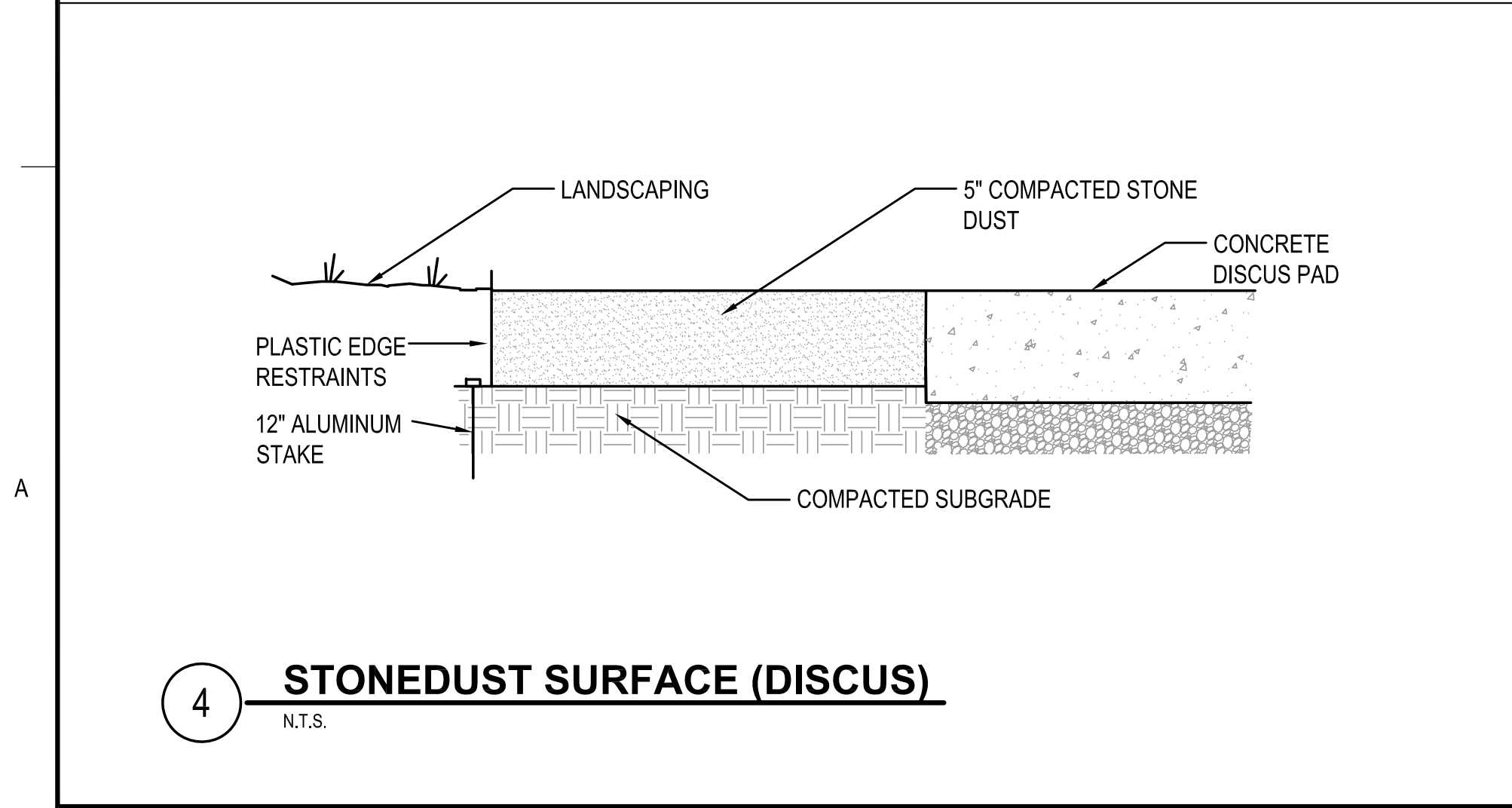
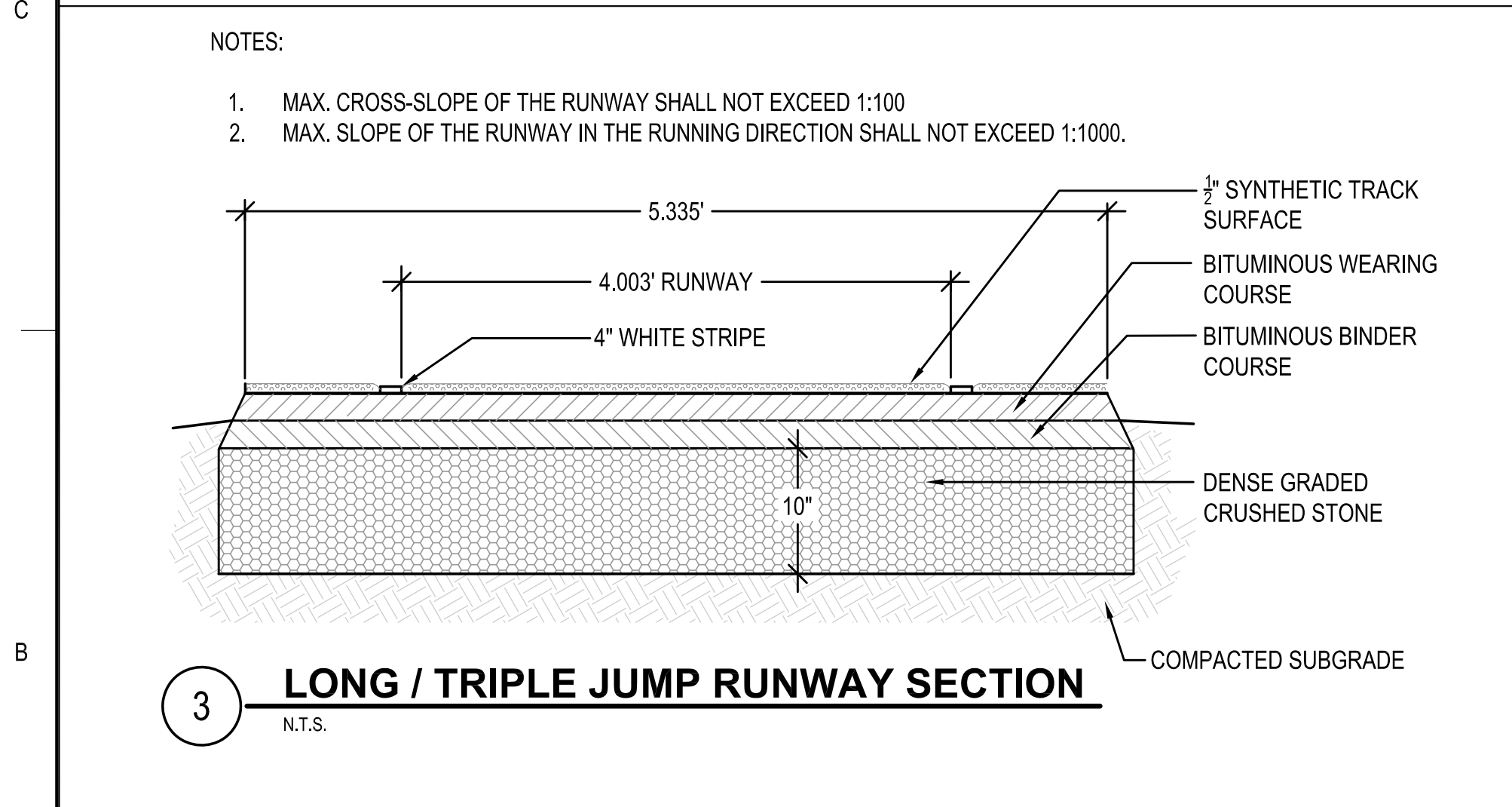
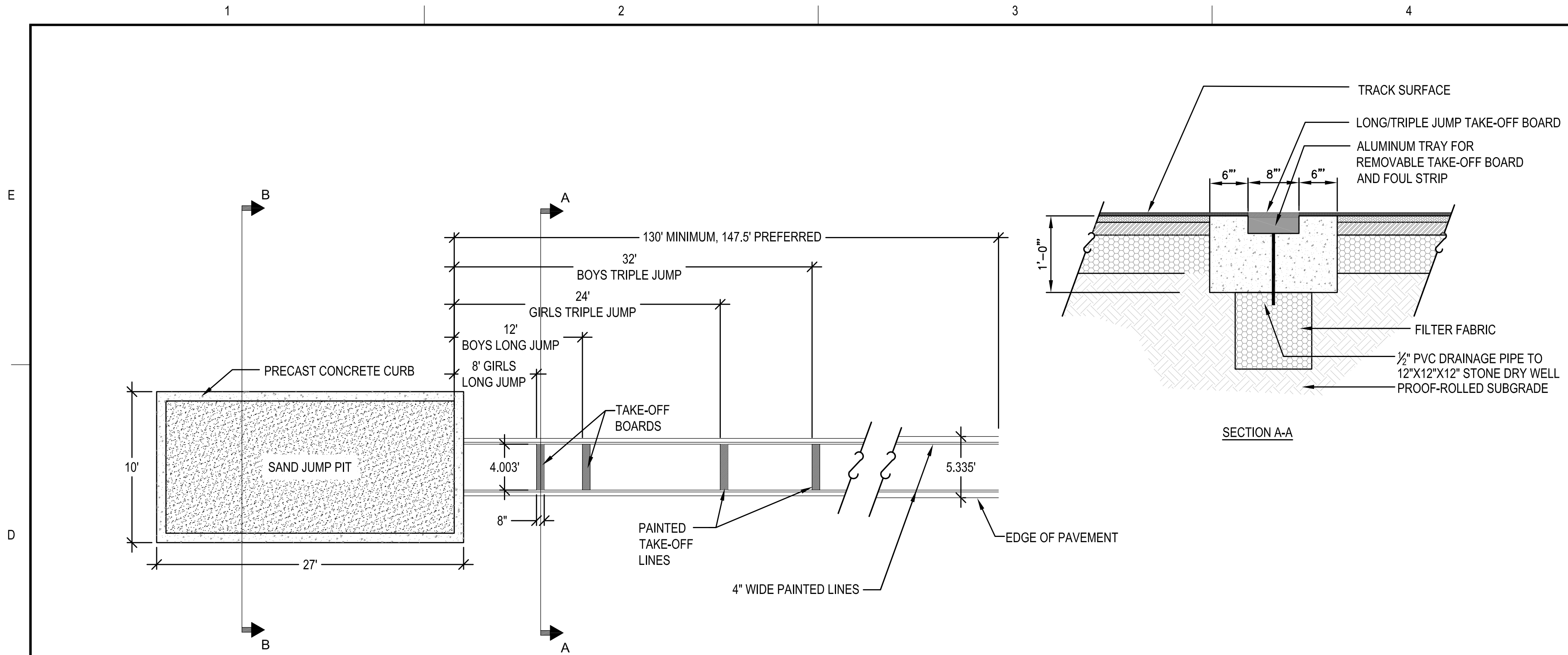
DETAIL  
SHEET  
9 OF 17



DRAWING NO.  
C509  
28 OF 55



F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C500.dwg, 3/12/2020 1:09:14 PM, dfn, Adobe PDF



**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

**PERMIT SET**

**PROJECT**  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

**OWNER**  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C500		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

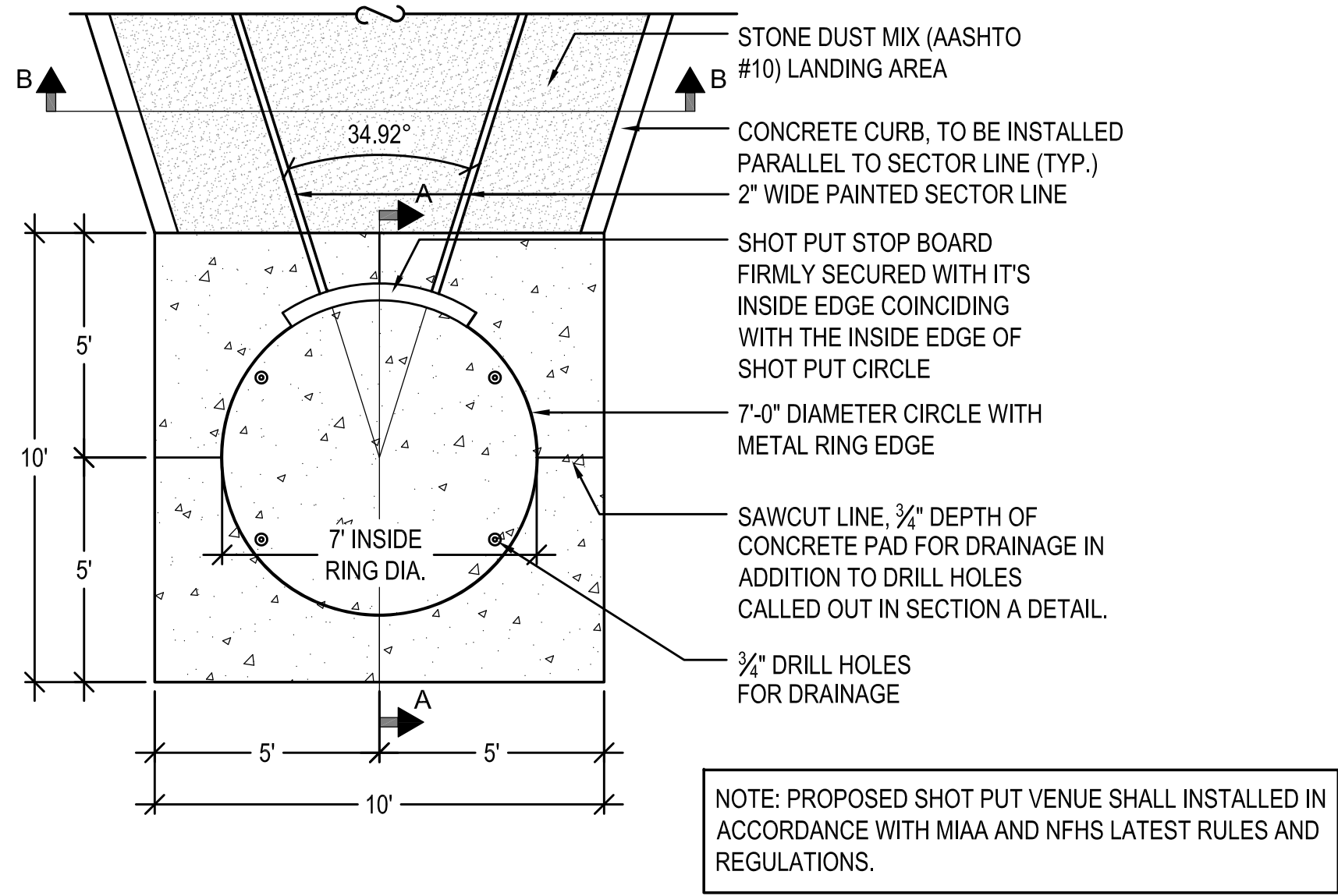
SHEET TITLE

**DETAIL SHEET 10 OF 17**

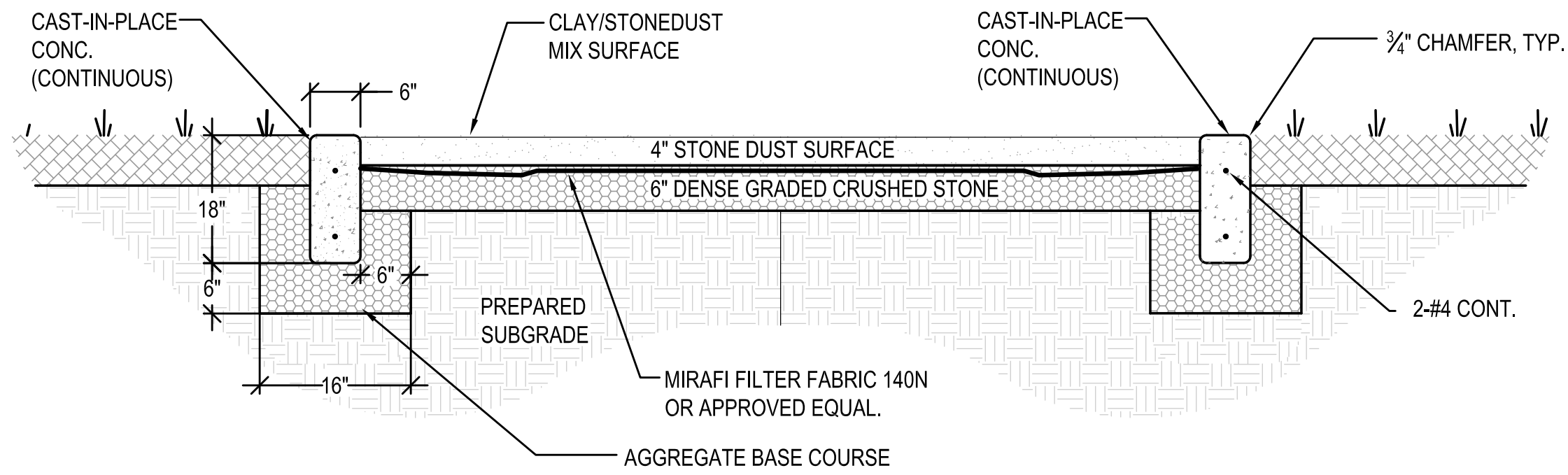
**DRAWING NO.**  
C510

29 OF 55

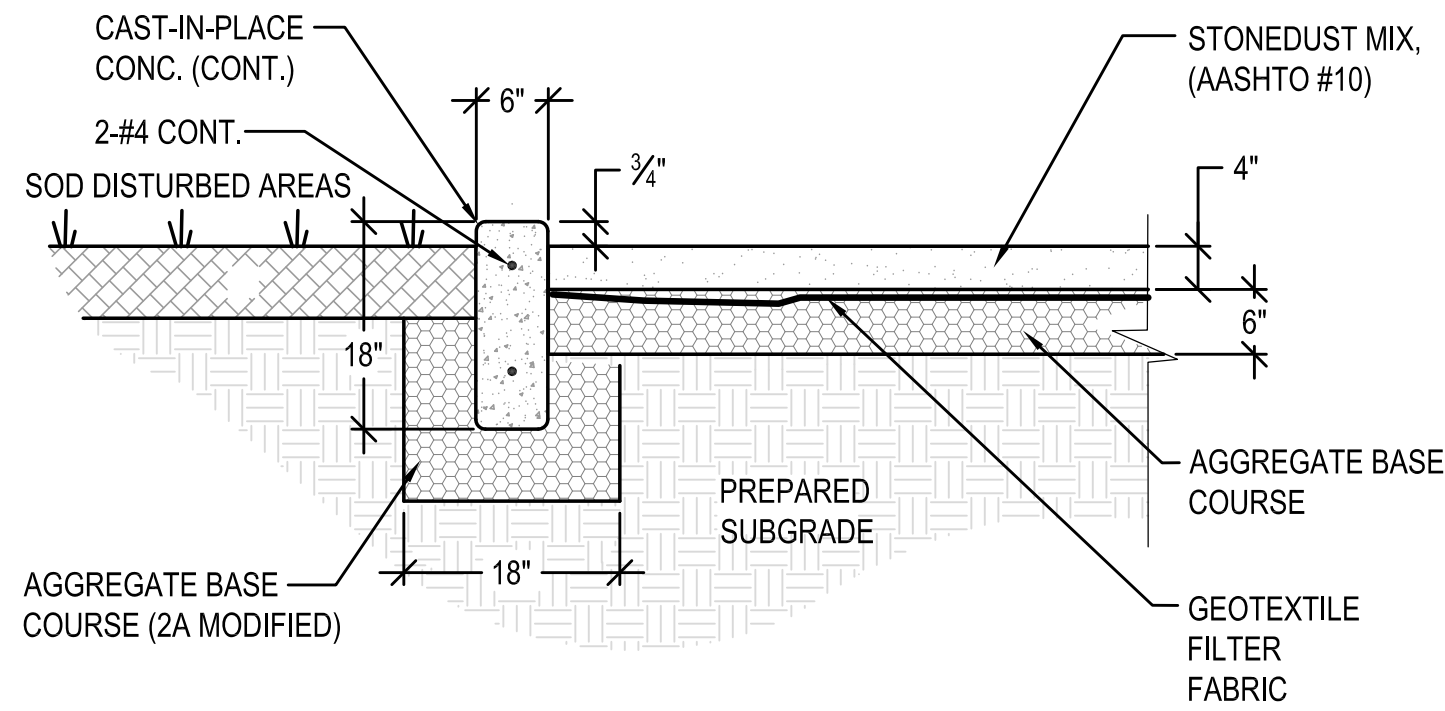




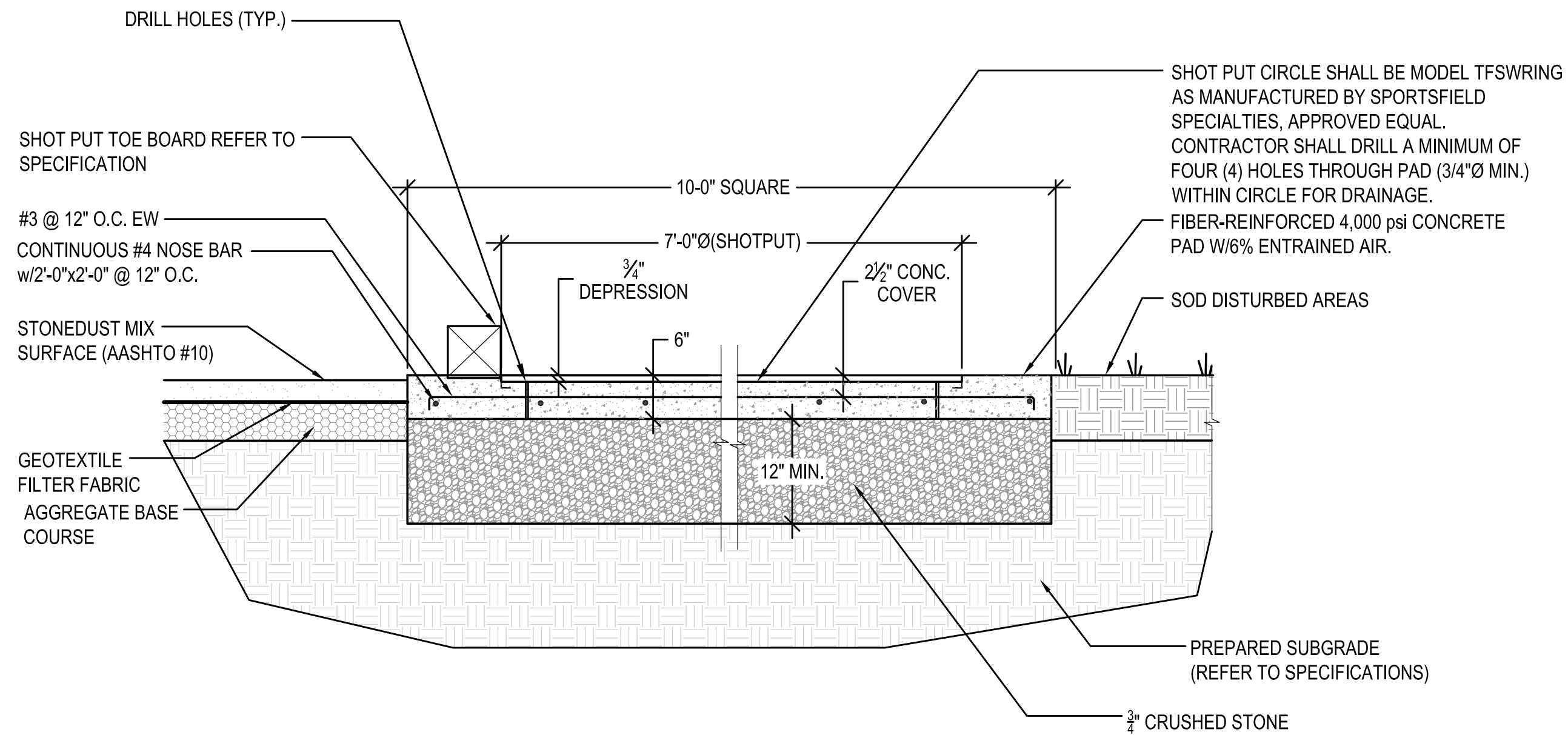
1 SHOT PUT LAYOUT  
N.T.S.



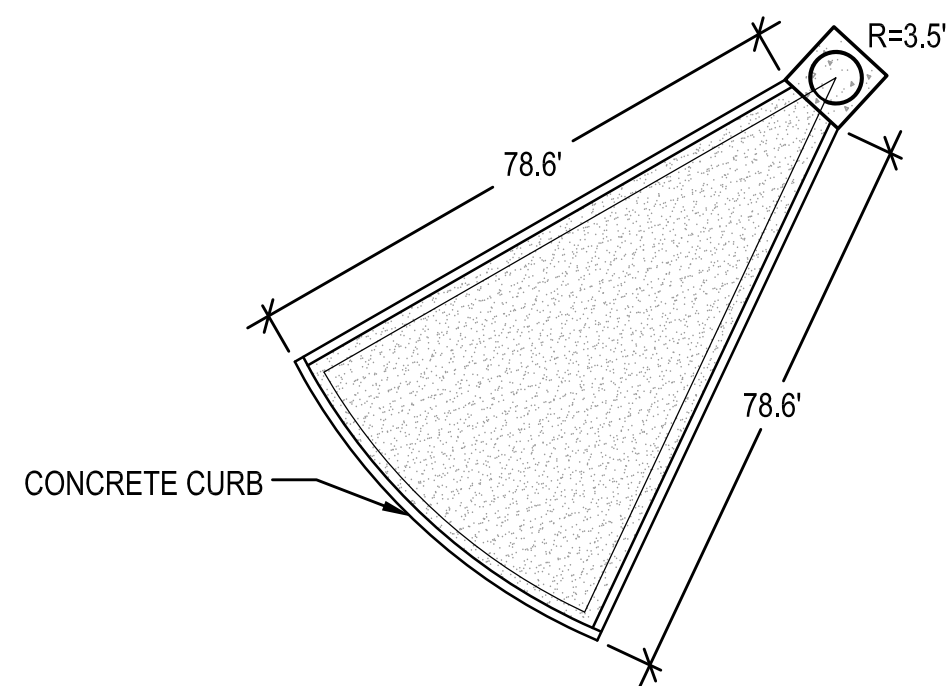
3 SHOT PUT LANDING AREA (SECTION B)  
N.T.S.



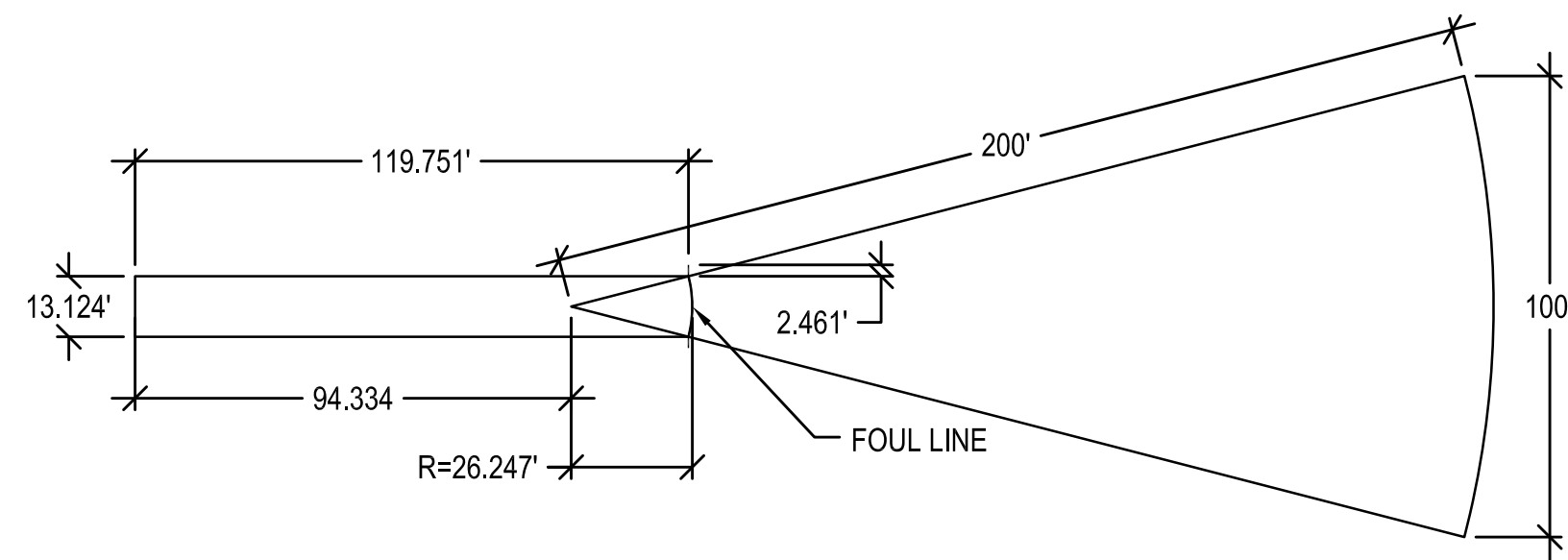
4 SHOT PUT LANDING AREA (END RADIUS)  
N.T.S.



2 SHOT PUT PAD (SECTION A)  
N.T.S.



5 SHOT PUT LAYOUT  
N.T.S.



6 JAVELIN LAYOUT  
N.T.S.

- NOTES:
1. FOUL LINE TO BE 0.230' (7cm) THICK.
  2. ALL OTHER LINES TO BE 0.164' (5cm) THICK.
  3. ALL LINES TO BE PAINTED IN SYNTHETIC TURF. COORDINATE WITH OWNER PRIOR TO PAINTING.



Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates Inc. Copyright©2020

PERMIT SET

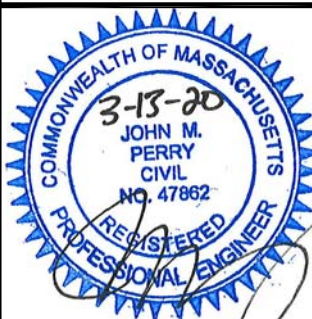
PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527  
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C500		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

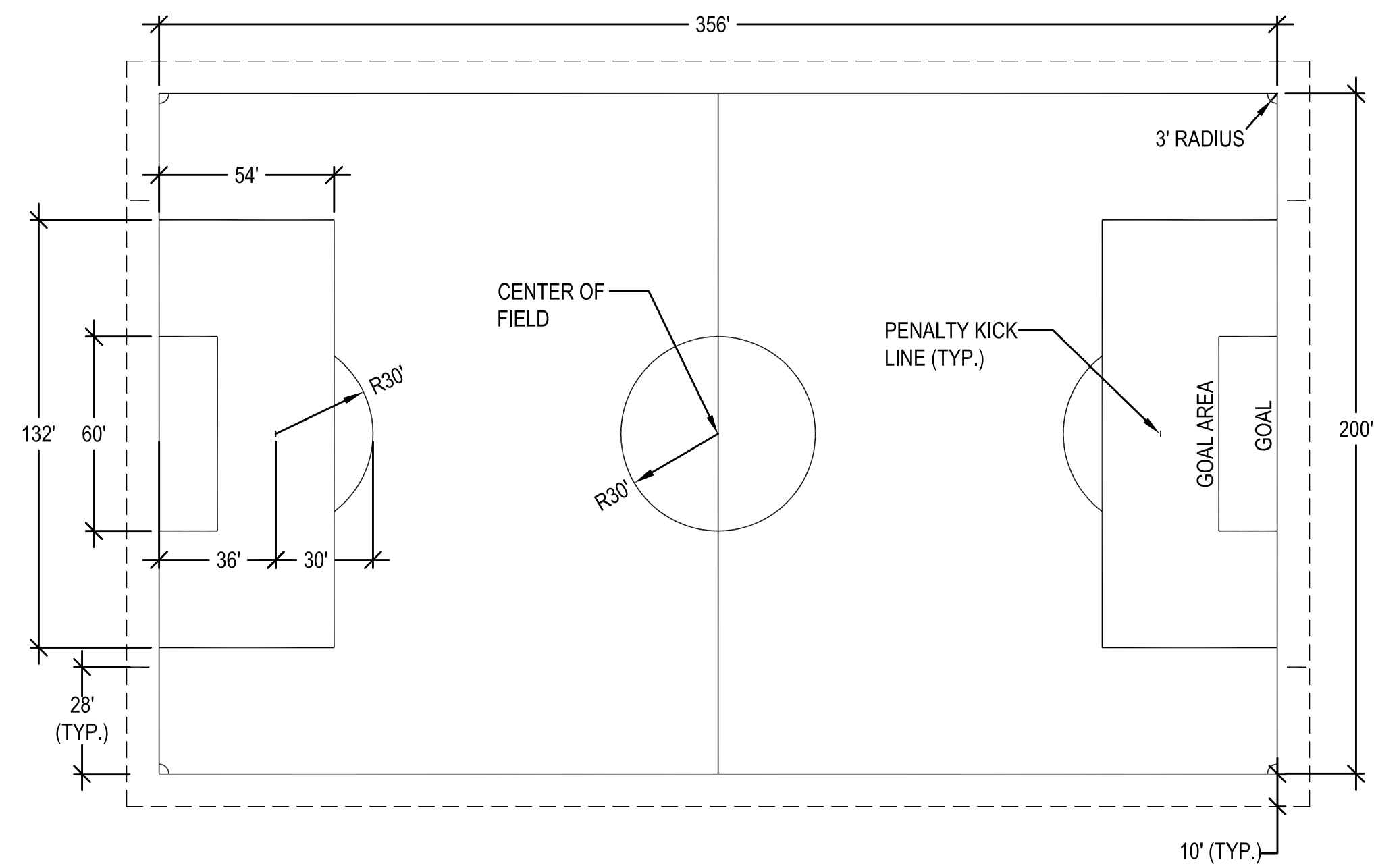
SHEET TITLE

DETAIL  
SHEET  
11 OF 17



DRAWING NO.  
C511  
30 OF 55



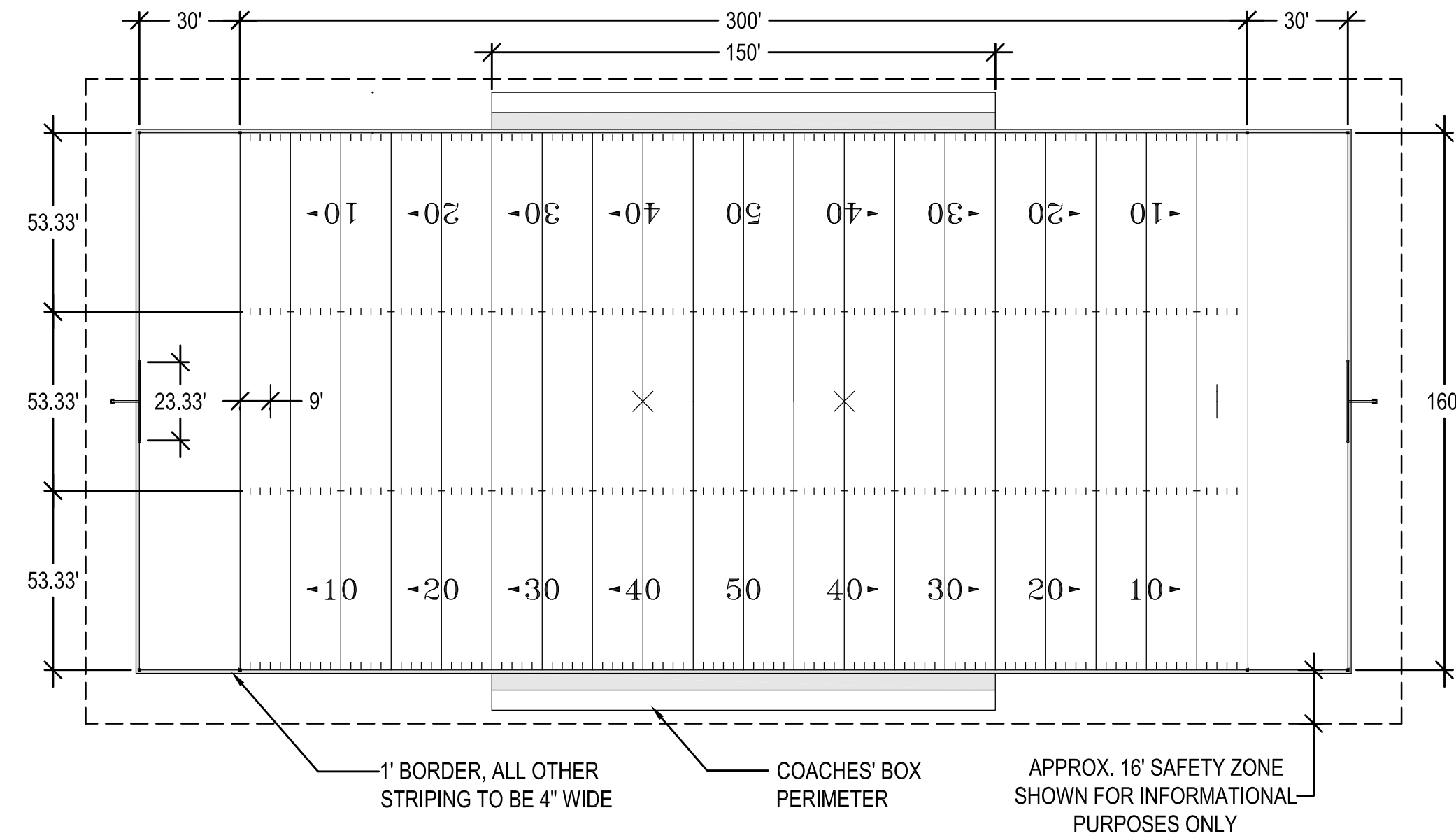


NOTE:

1. ALL STRIPING TO ADHERE TO N.F.H.S. AND M.I.A.A. STANDARDS.
2. ALL LINES AND MARKINGS TO BE INLAID. FINAL COLORS SUBJECT TO APPROVAL BY OWNER.

1 **SOCCER STRIPING DETAIL**  
N.T.S.

N.T.S

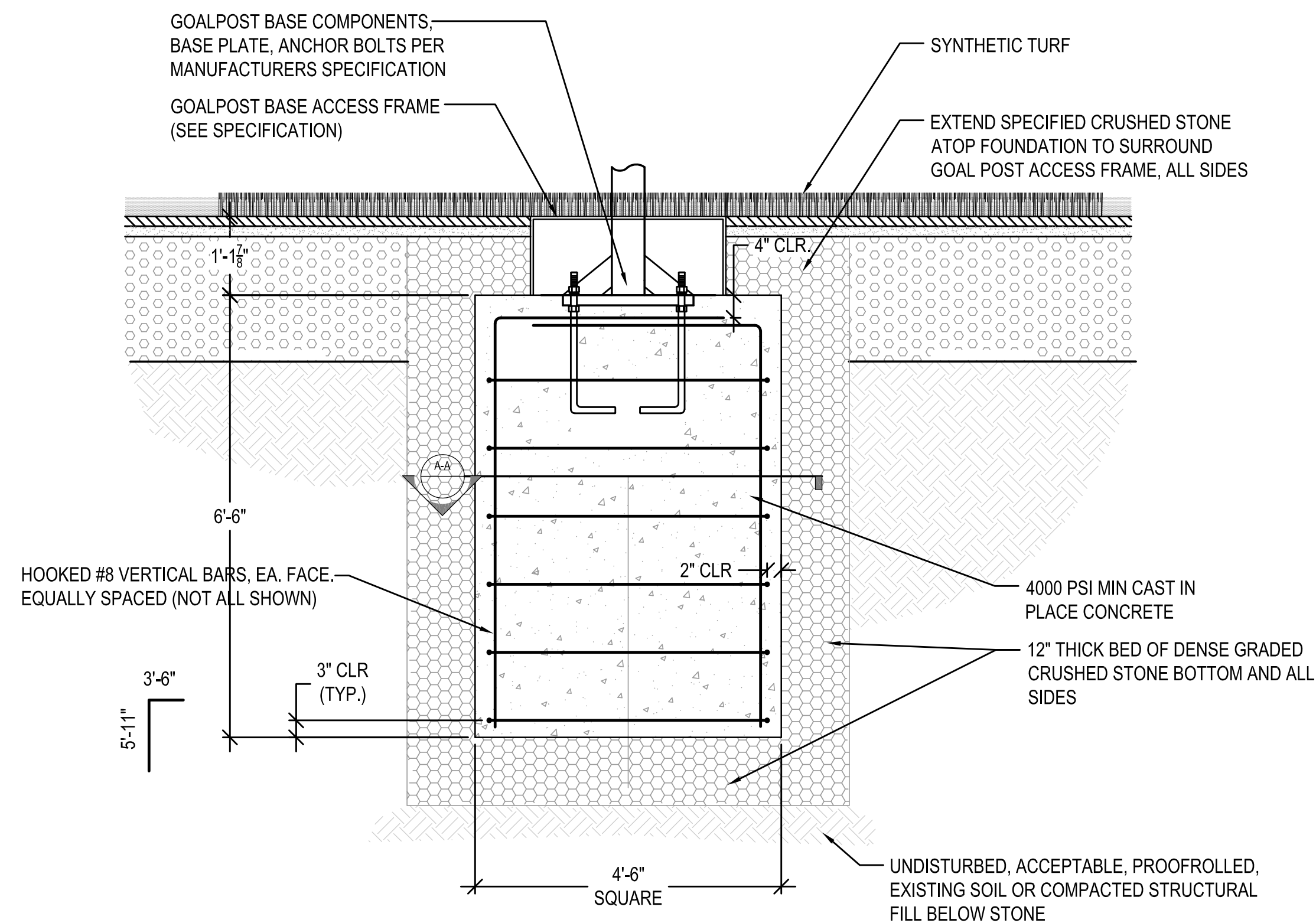


NOTE:

1. ALL STRIPING TO ADHERE TO N.F.H.S. AND M.I.A.A. STANDARDS.
2. ALL LINES AND MARKINGS TO BE INLAID. FINAL COLORS SUBJECT TO APPROVAL BY OWNER.

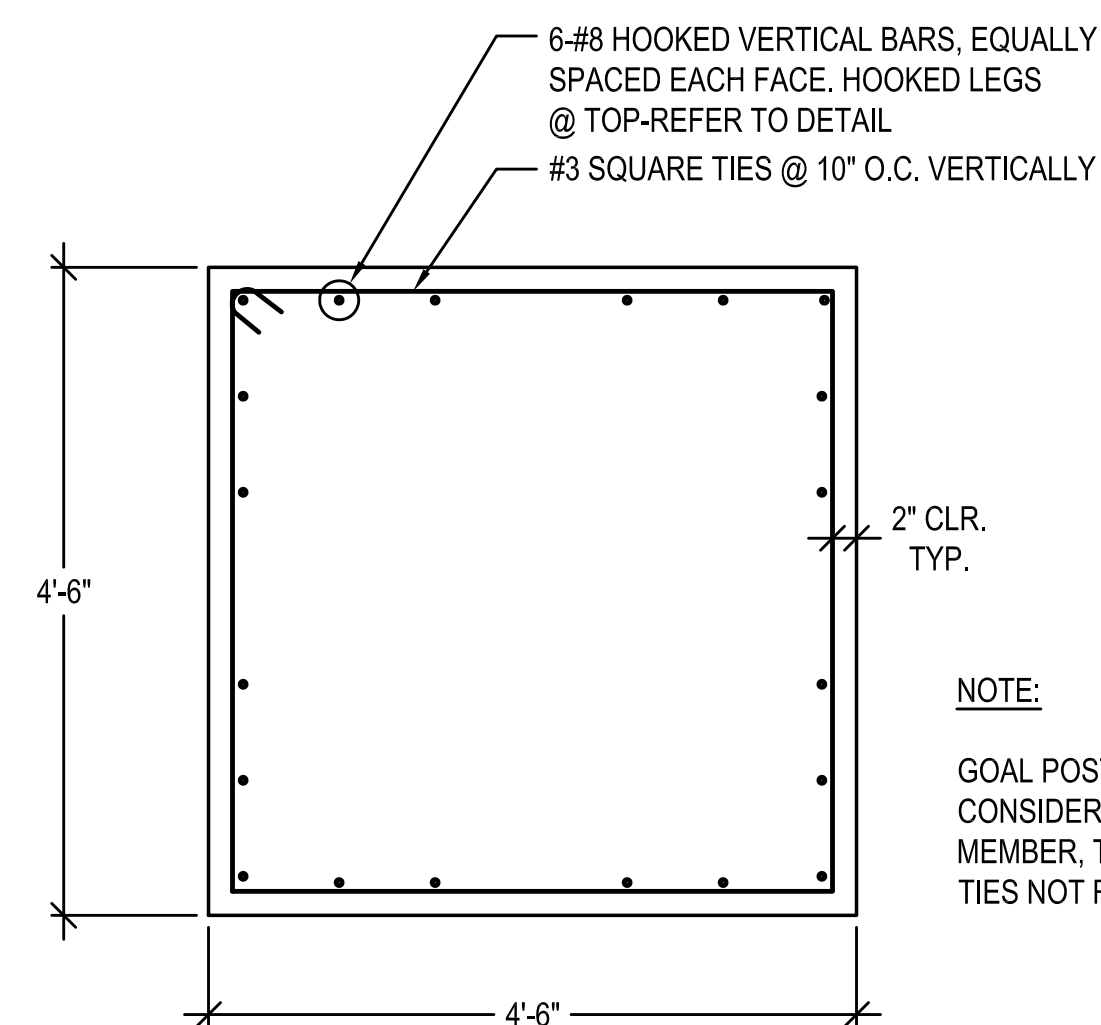
2 **FOOTBALL STRIPING DETAIL**  
N.T.S.

N.T.S



## 3. FOOTBALL GOAL POST FOUNDATION

N.T.S

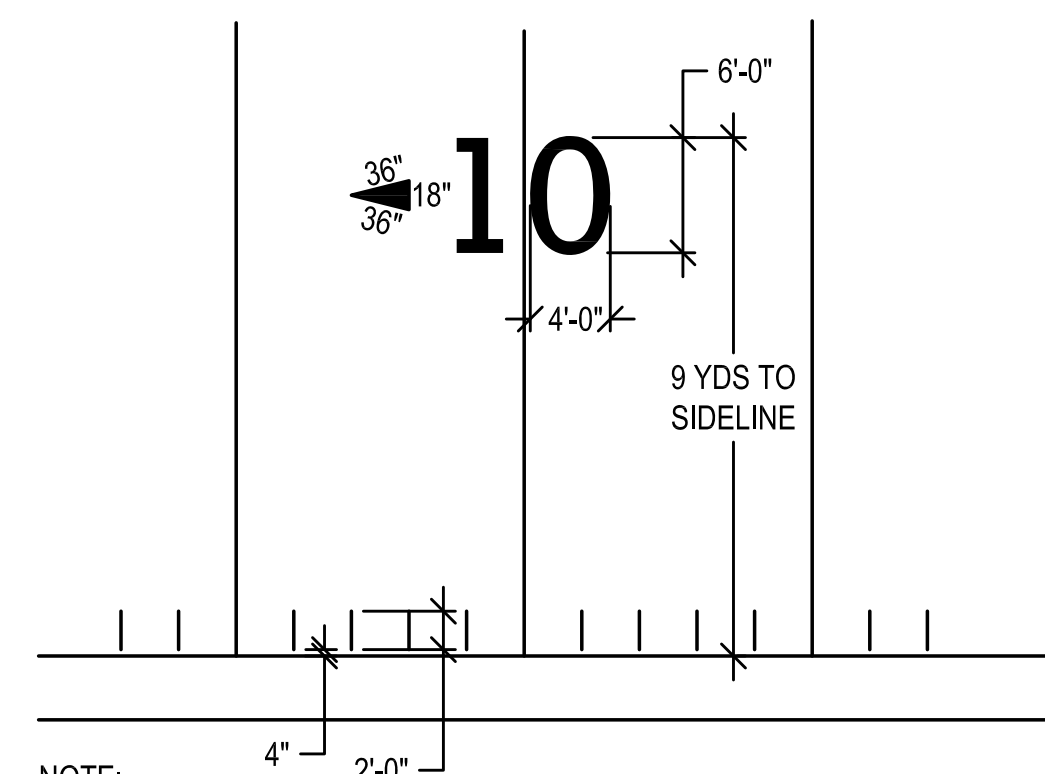


**NOTE:**

GOAL POST FOUNDATION IS NOT  
CONSIDERED AS A COMPRESSION  
MEMBER, THEREFORE SEISMIC  
TIES NOT REQUIRED.

**4 SECTION A-A**  
N.T.S.

N.T.S.



NOTE:

1. THE CONTRACTOR SHALL INLAY MARKINGS ON THE FIELD, 4-INCHES FROM EACH SIDELINE, YARD-LINE EXTENSIONS (HASH MARKS) THAT SHOULD BE 2-FEET IN LENGTH AND 4-INCHES IN WIDTH.
2. THE CONTRACTOR SHALL IN-LAY NUMERALS, WHICH SHALL BE 6-FEET IN HEIGHT AND 4 FEET IN WIDTH, & DIRECTIONAL ARROWS AT THE 10, 20, 30, 40 AND 50 YARD LINES.
3. THE TOPS OF THE NUMBERS SHOULD BE 9-YARDS FROM THE SIDELINE.
4. CONTRACTOR SHALL INCLUDE DIRECTIONAL ARROWS NEXT TO THE YARD-LINE NUMBERS INDICATING THE DIRECTION TOWARD THE NEAREST GOAL LINE.

ALL PROPOSED STRIPING SHALL BE IN ACCORDANCE WITH THE MIAA AND NATIONAL FEDERATION OF STATE HIGH SCHOOL ASSOCIATIONS (NFHS)

5 **YARD-LINE NUMBERING DETAIL**  
N.T.S.

N.T.S



**Gale Associates, Inc.**  
*Engineers and Planners*

163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

## PERMIT SET

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_C500	
DESIGNED BY		DFN/KFR	
DRAWN BY		DFN/KFR	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		N.T.S.	

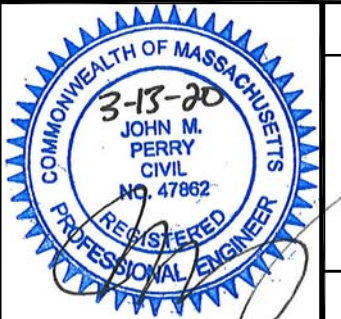
GRAPHIC SCALE

SHEET TITLE

DETAIL  
SHEET  
12 OF 17

DRAWING NO.

C512



31 OF 55



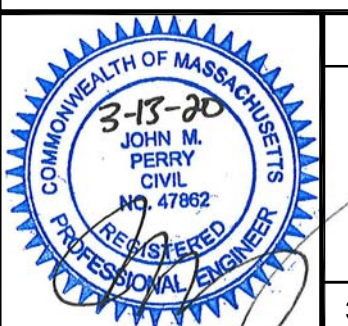


NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_C500	
DESIGNED BY		DFN/KFR	
DRAWN BY		DFN/KFR	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		N.T.S.	

GRAPHIC SCALE

SHEET TITLE

DETAIL  
SHEET  
13 OF 17



DRAWING NO.

C513

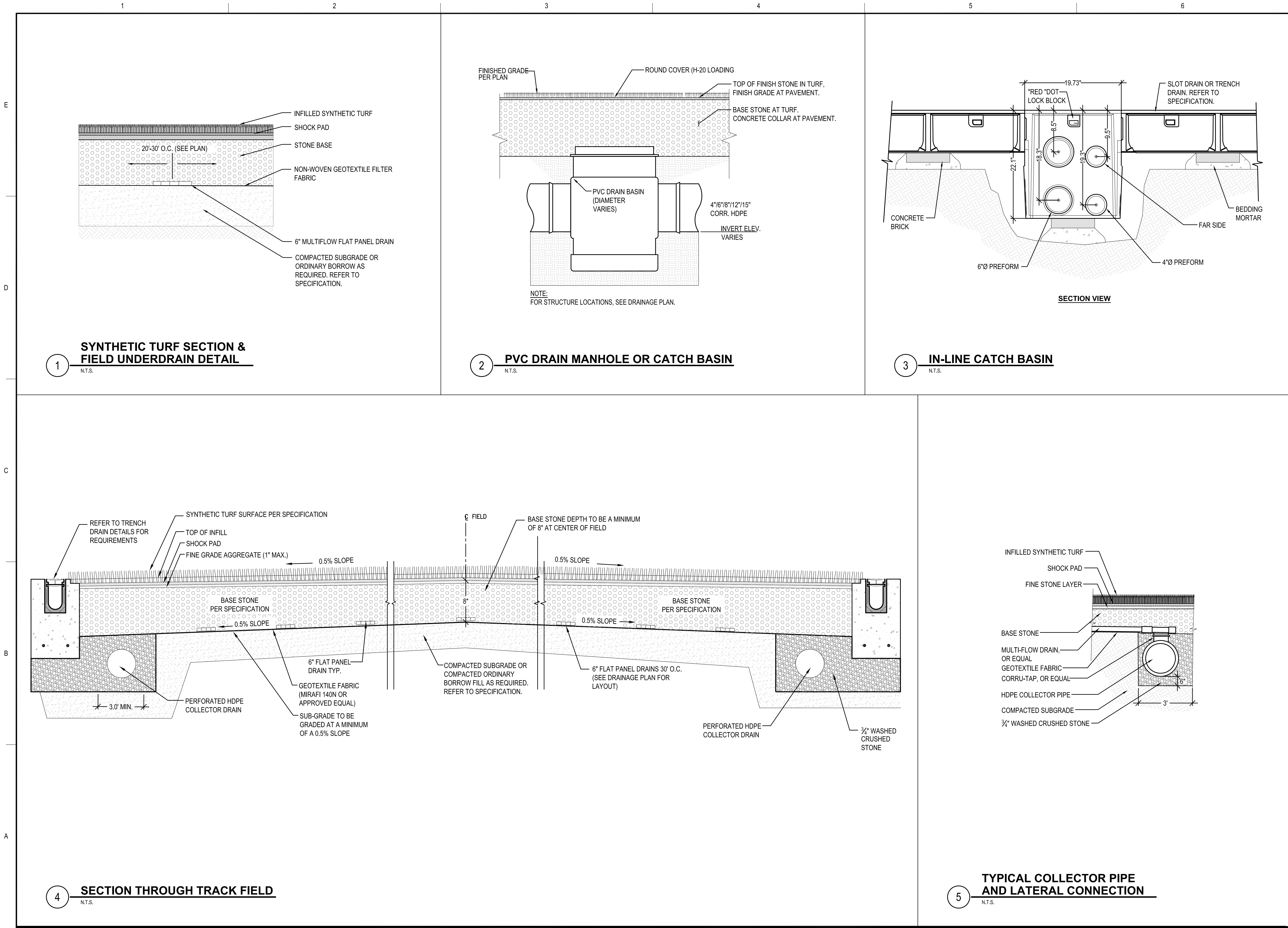
32 OF 55

PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527



F:\16383\plots\07-Permit Drawings\03-Resubmission\16383\_C500.dwg, 3/12/2020 1:06:36 PM, dfn, Adobe PDF



Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.galn.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

PERMIT SET

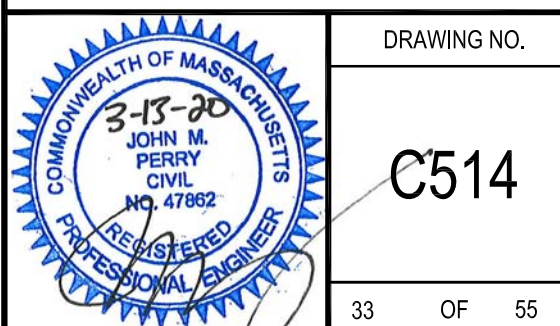
PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527  
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C500		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

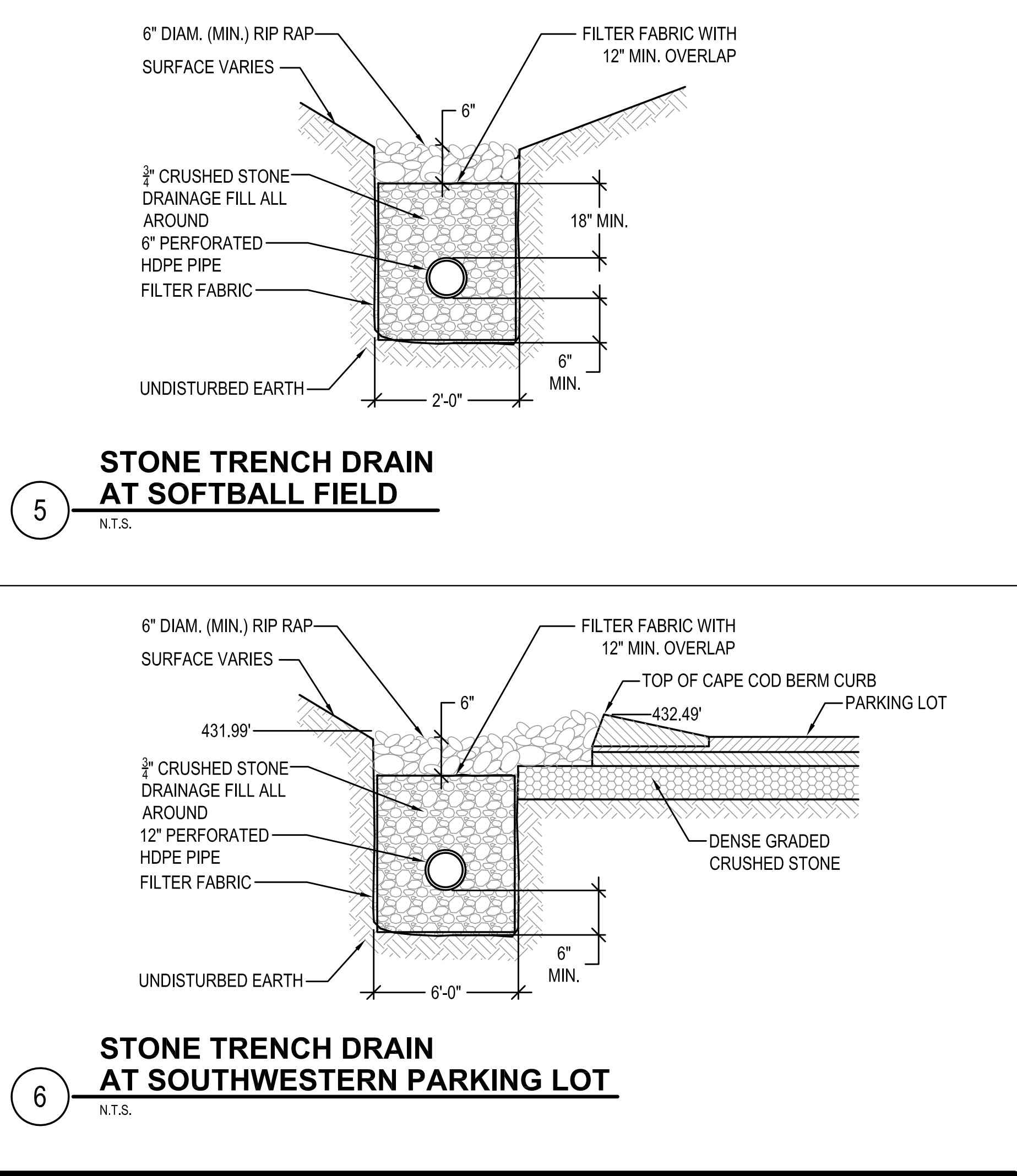
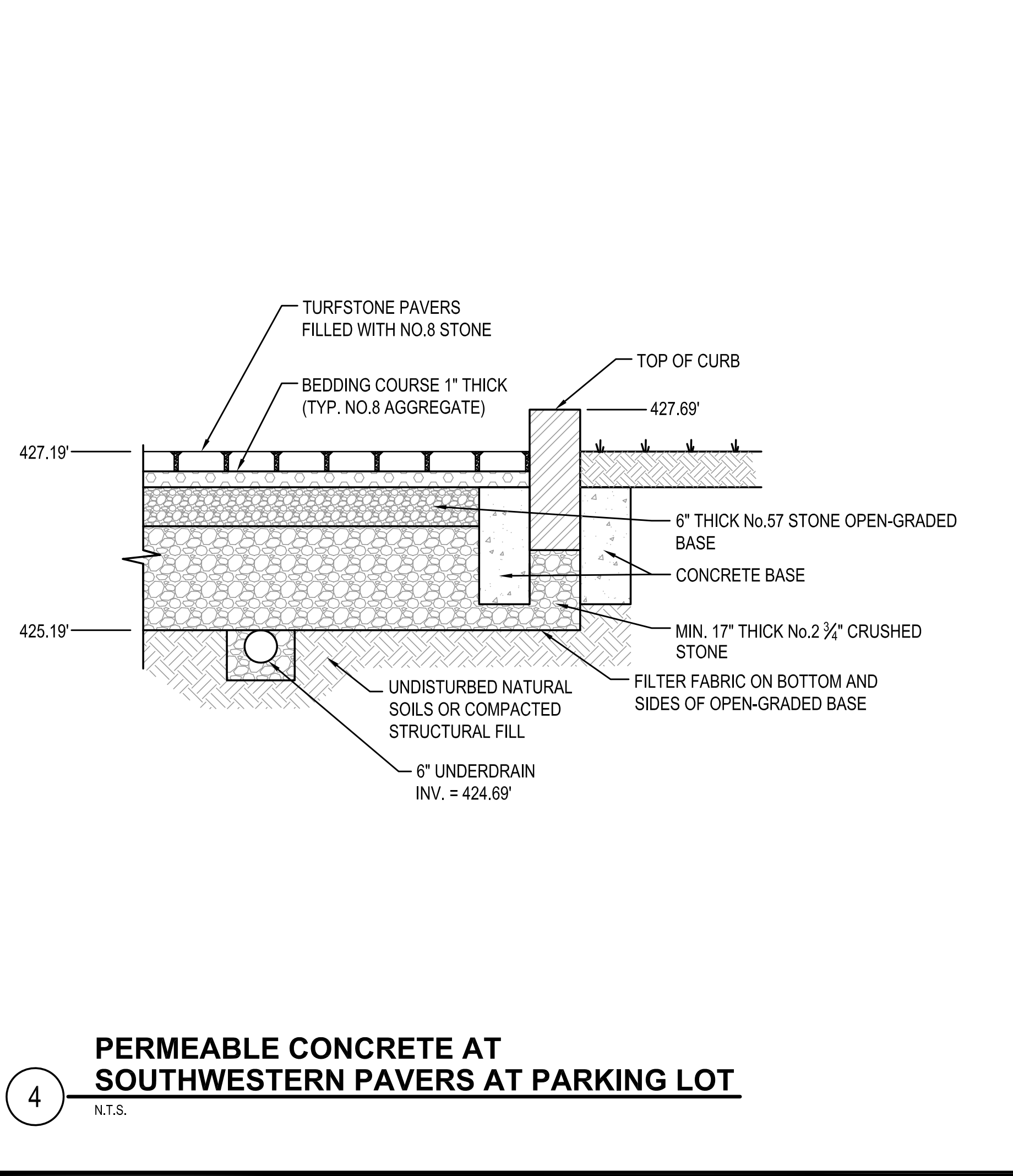
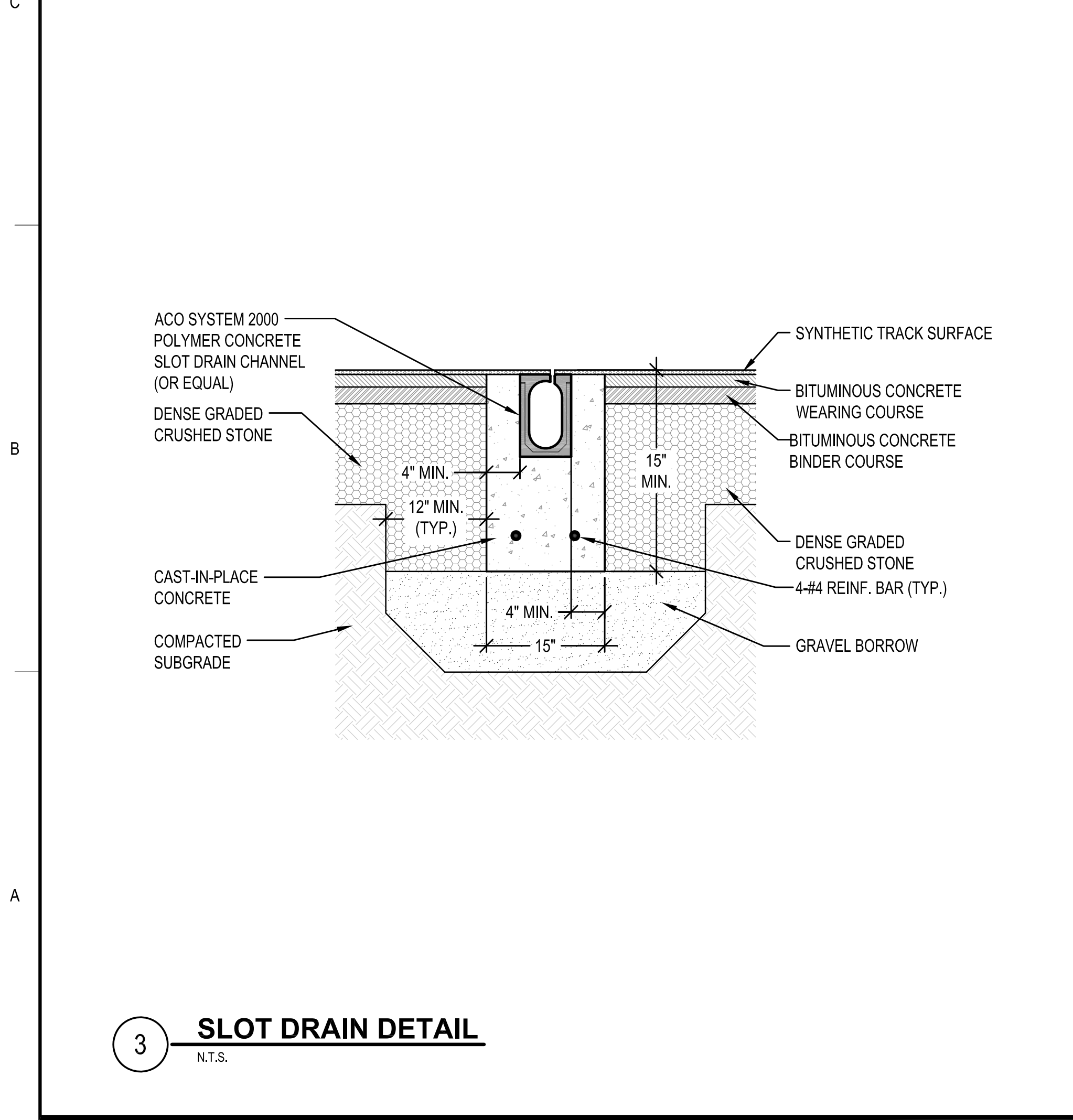
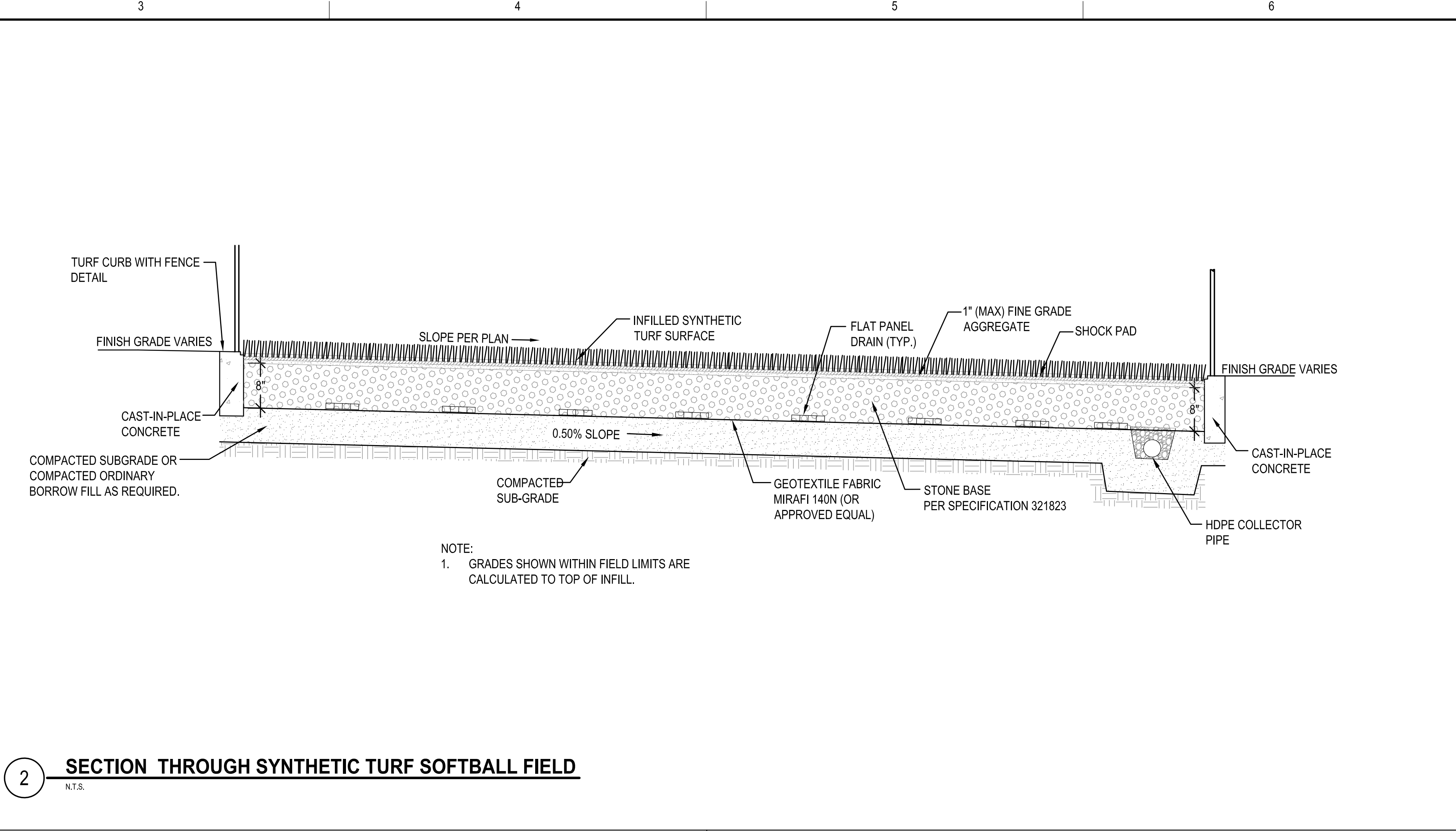
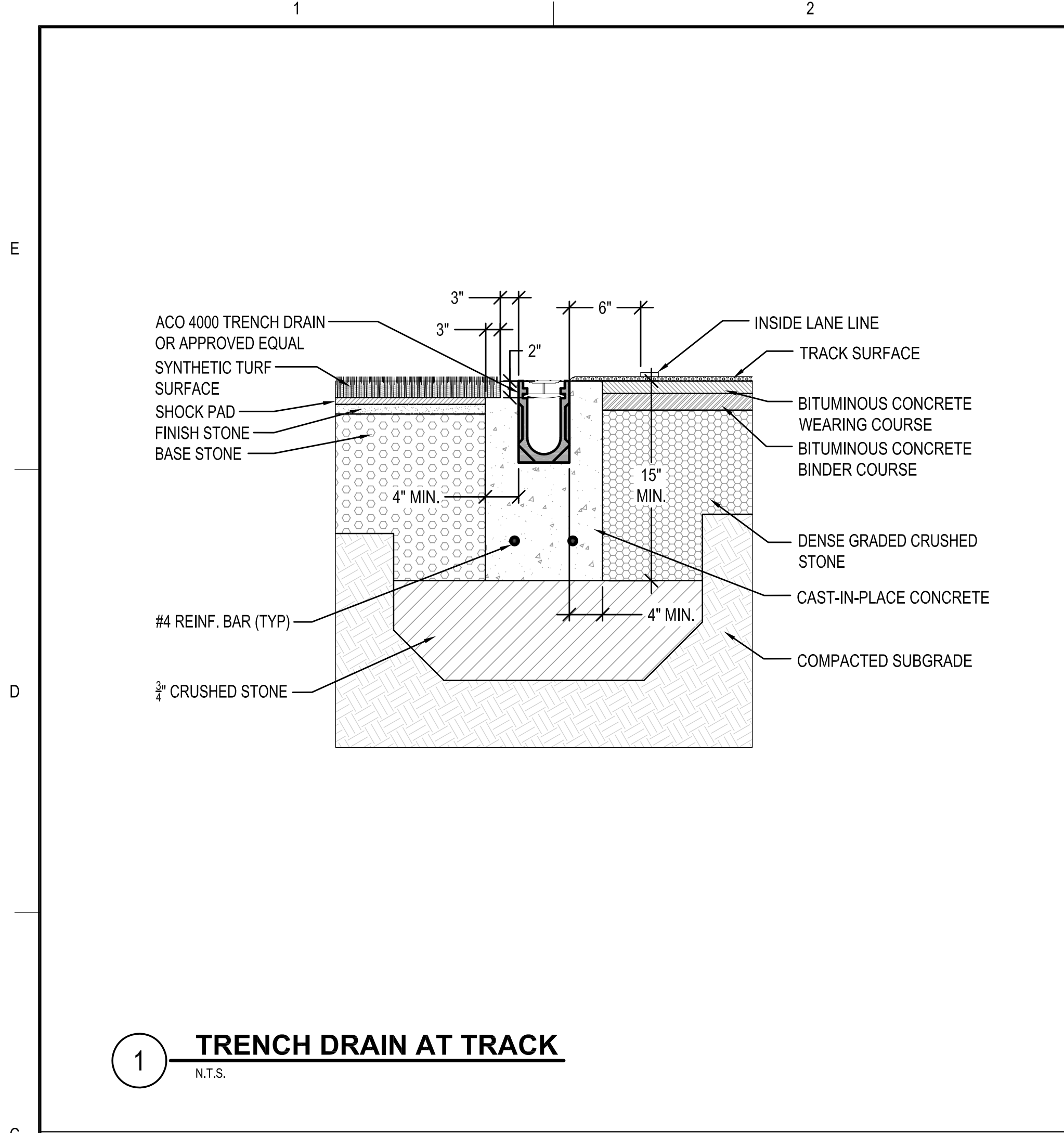
DETAIL  
SHEET  
14 OF 17



DRAWING NO.  
C514  
33 OF 55



F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C500.dwg, 3/12/2020 1:05:59 PM, dfn, Adobe PDF



**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

**PERMIT SET**

PROJECT  
**MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527**

OWNER  
**MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527**

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_C500		
DESIGNED BY	DFN/KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

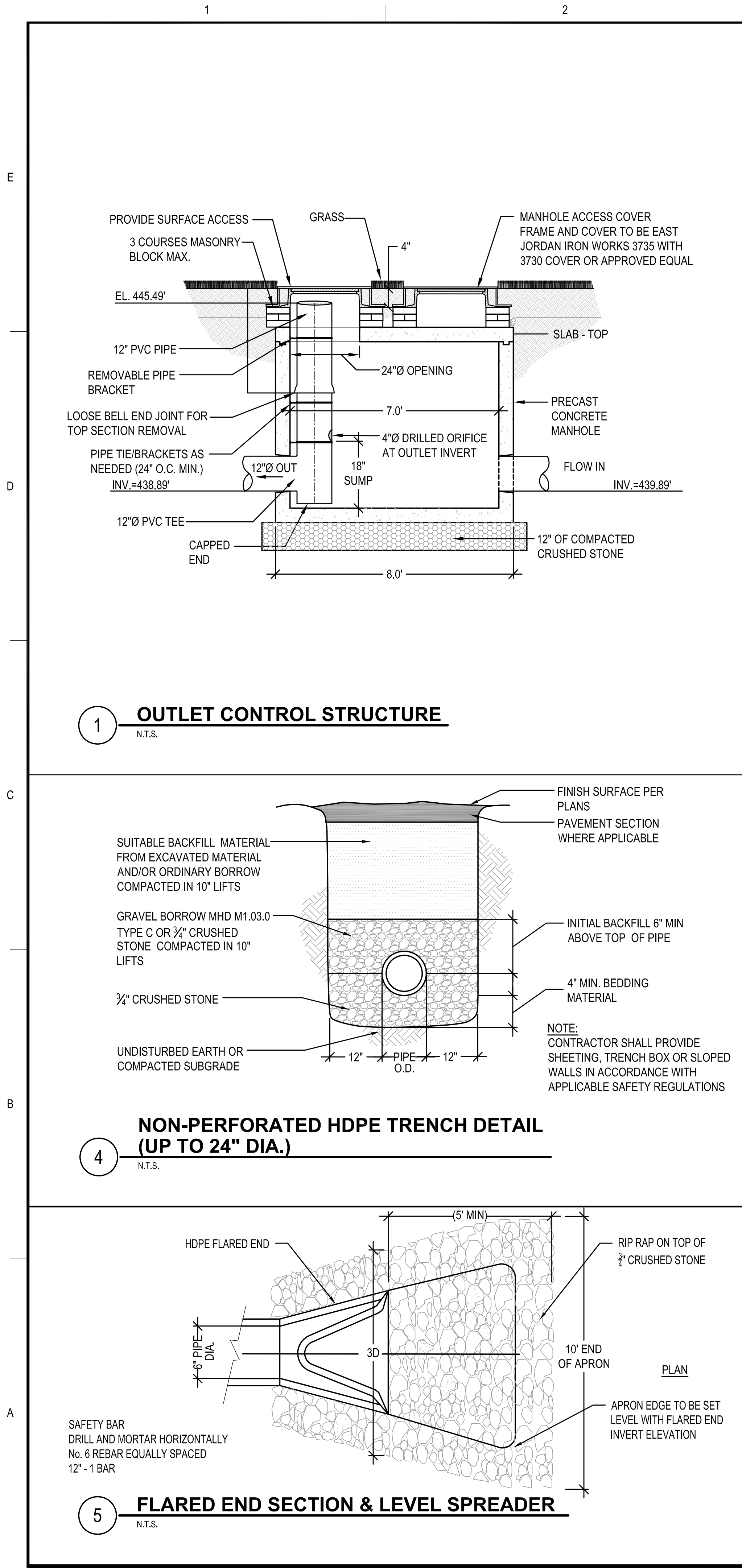
**DETAIL  
SHEET  
15 OF 17**

DRAWING NO.  
**C515**

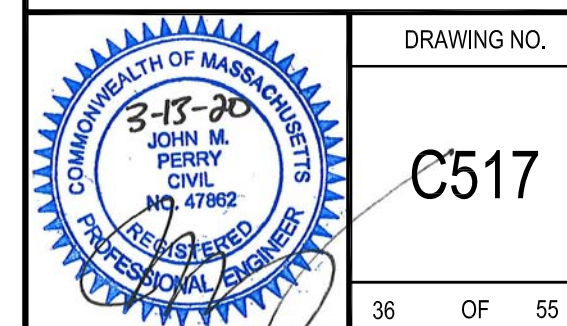
34 OF 55



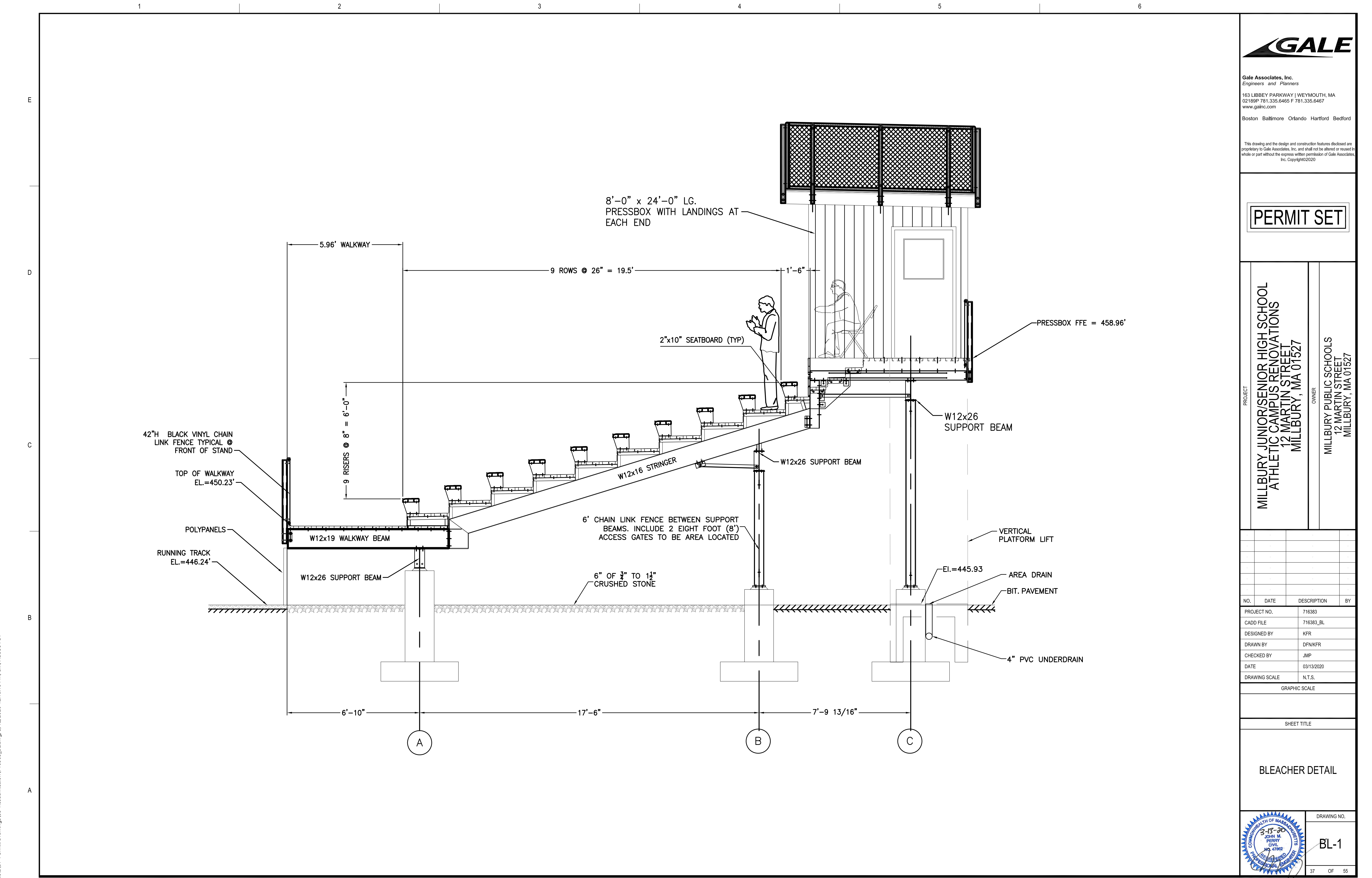
F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_C500.dwg, 3/12/2020 1:05:18 PM, dfn, Adobe PDF











Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

PERMIT SET

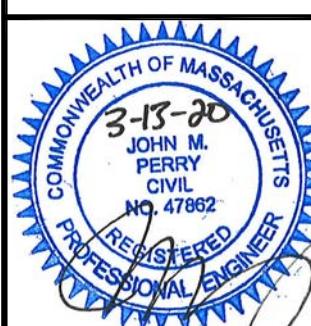
PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527  
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_BL		
DESIGNED BY	KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

BLEACHER DETAIL



DRAWING NO.  
BL-1



PERMIT SET

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY	
PROJECT NO.		716383		
CADD FILE		716383_BL		
DESIGNED BY		KFR		
DRAWN BY		DFN/KFR		
CHECKED BY		JMP		
DATE		03/13/2020		
DRAWING SCALE		N.T.S.		

GRAPHIC SCALE

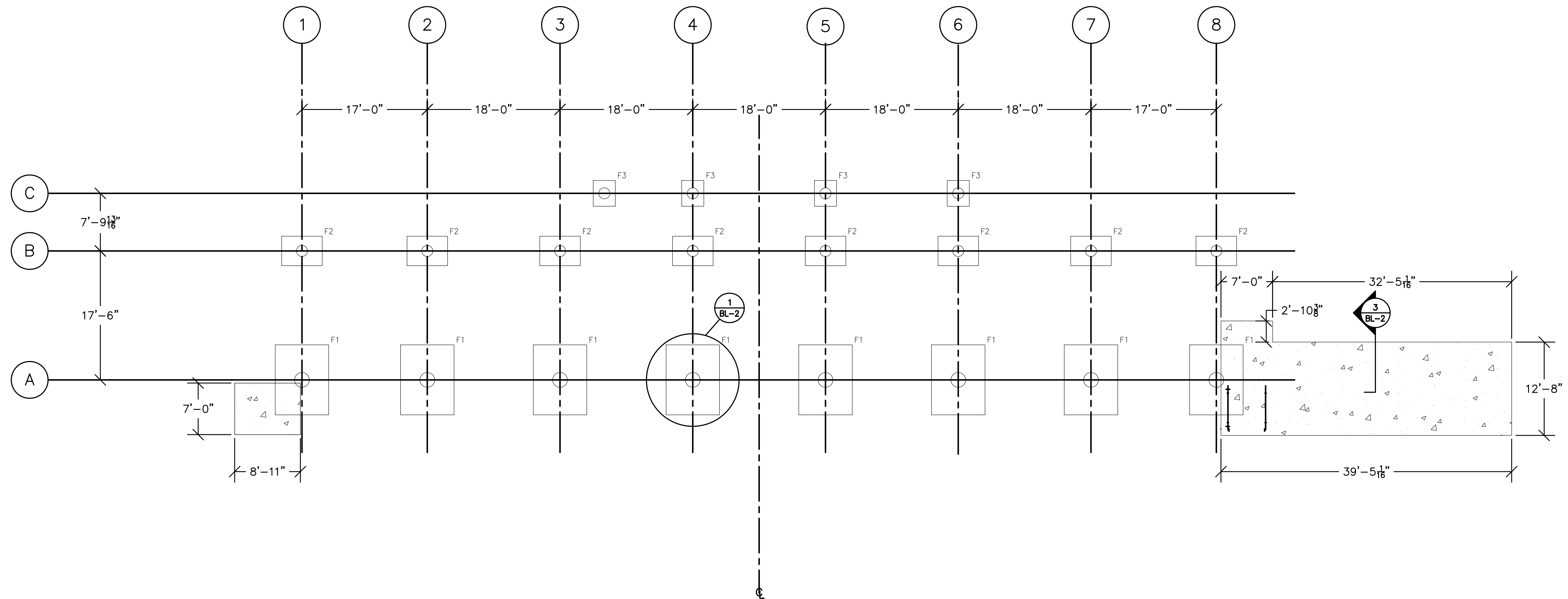
SHEET TITLE

BASE BID  
BLEACHER DETAIL  
SHEET 1 OF 2

WING NO.

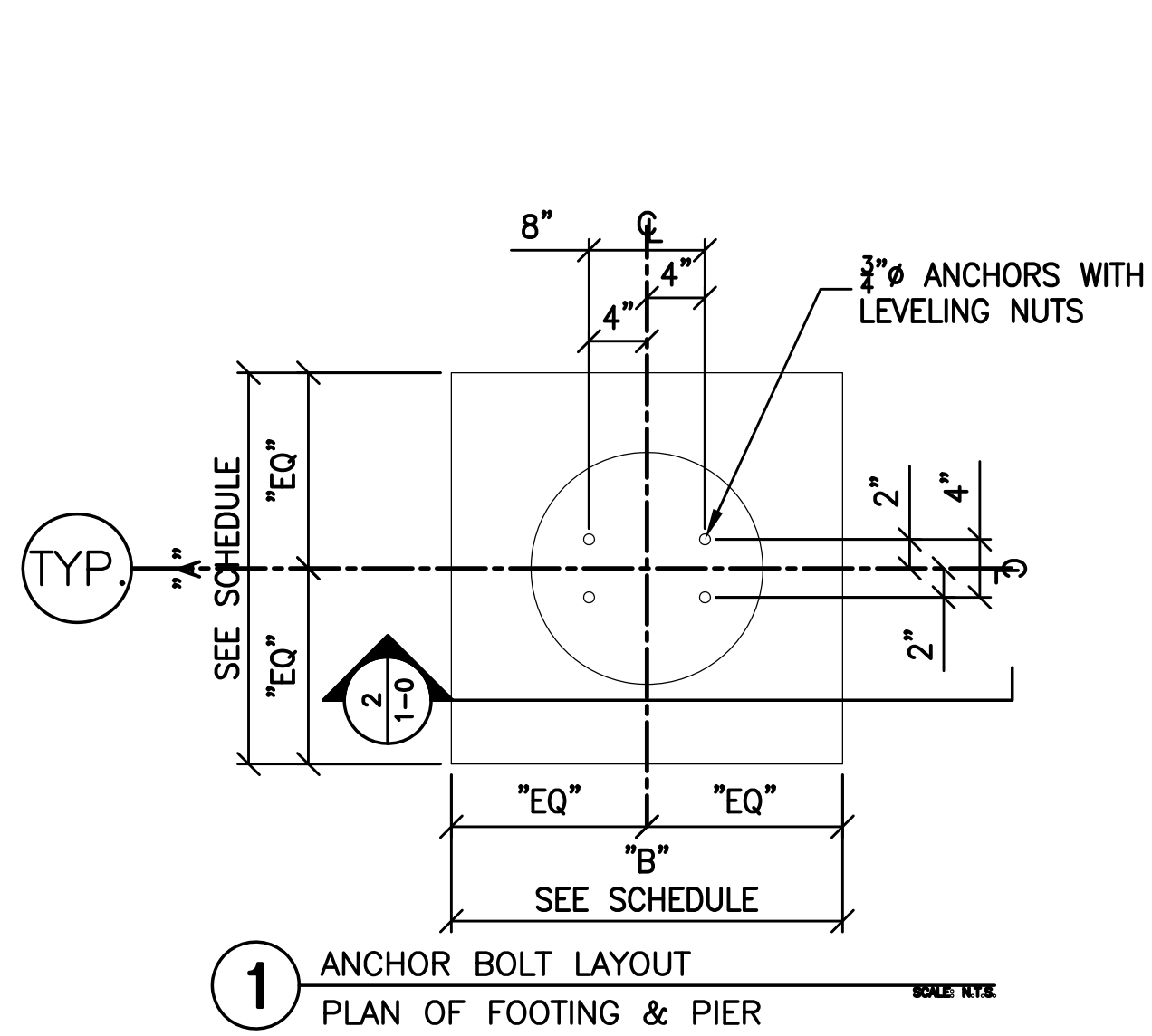
L-2

OF 55

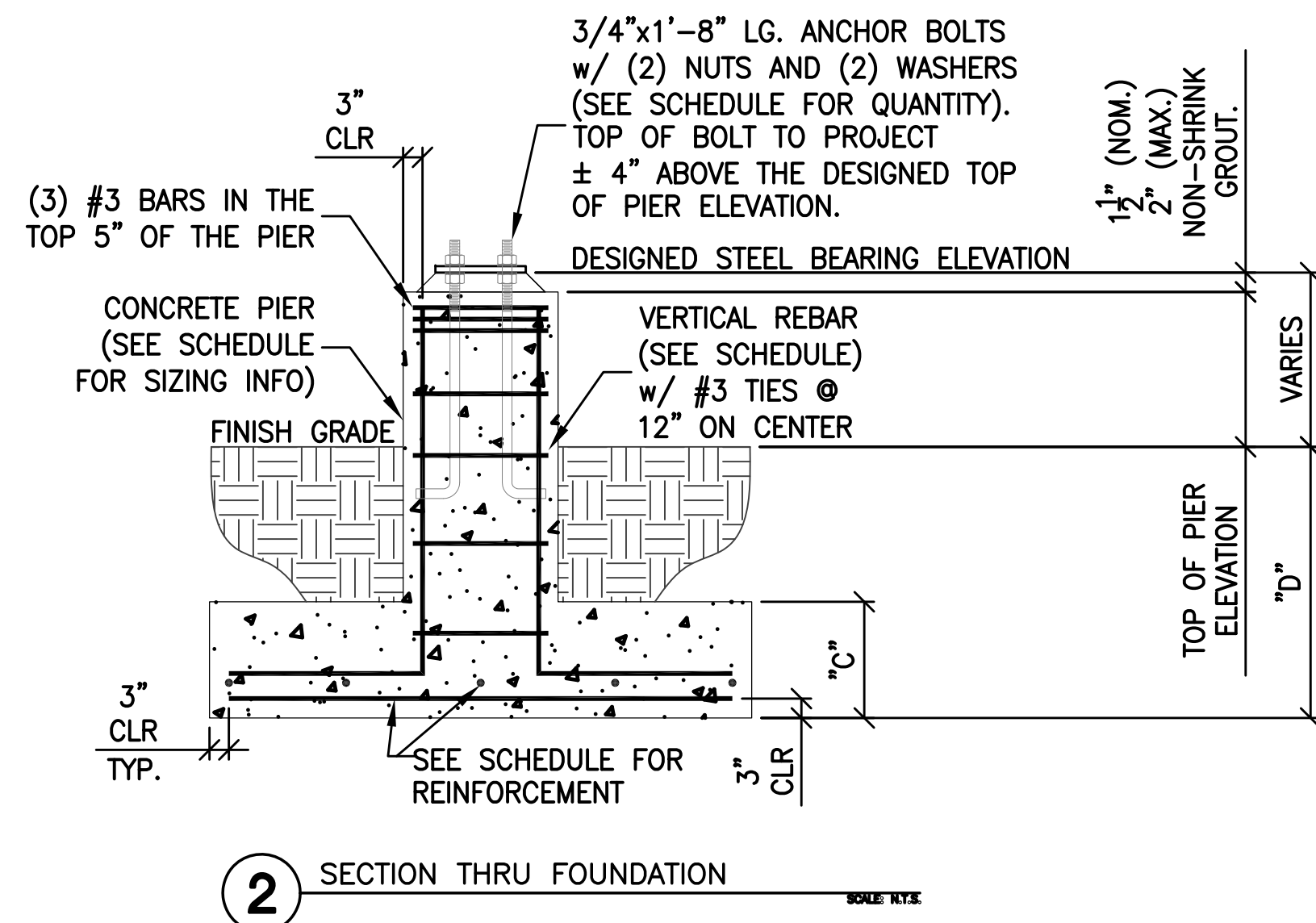


## FOUNDATION PLAN

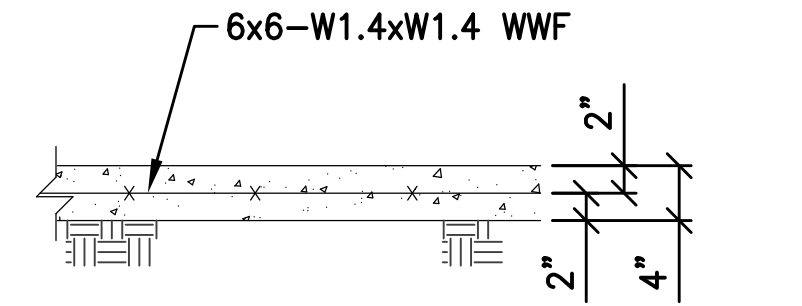
SCALE:  $1/8" = 1'-0"$



# 1 ANCHOR BOLT LAYOUT PLAN OF FOOTING & PIER



2 SECTION THRU FOUNDATION



3 SECTION OF SLAB  
ON GRADE

[illegible]

ASSUMED FROST DEPTH - 42"  
ASSUMED SOIL BEARING CAPACITY - 3000PSF



This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

# PERMIT SET

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

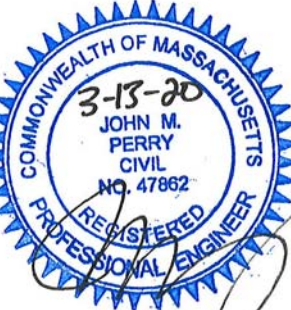

  

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_BL	
DESIGNED BY		KFR	
DRAWN BY		DFN/KFR	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		N.T.S.	

GRAPHIC SCALE

SHEET TITLE

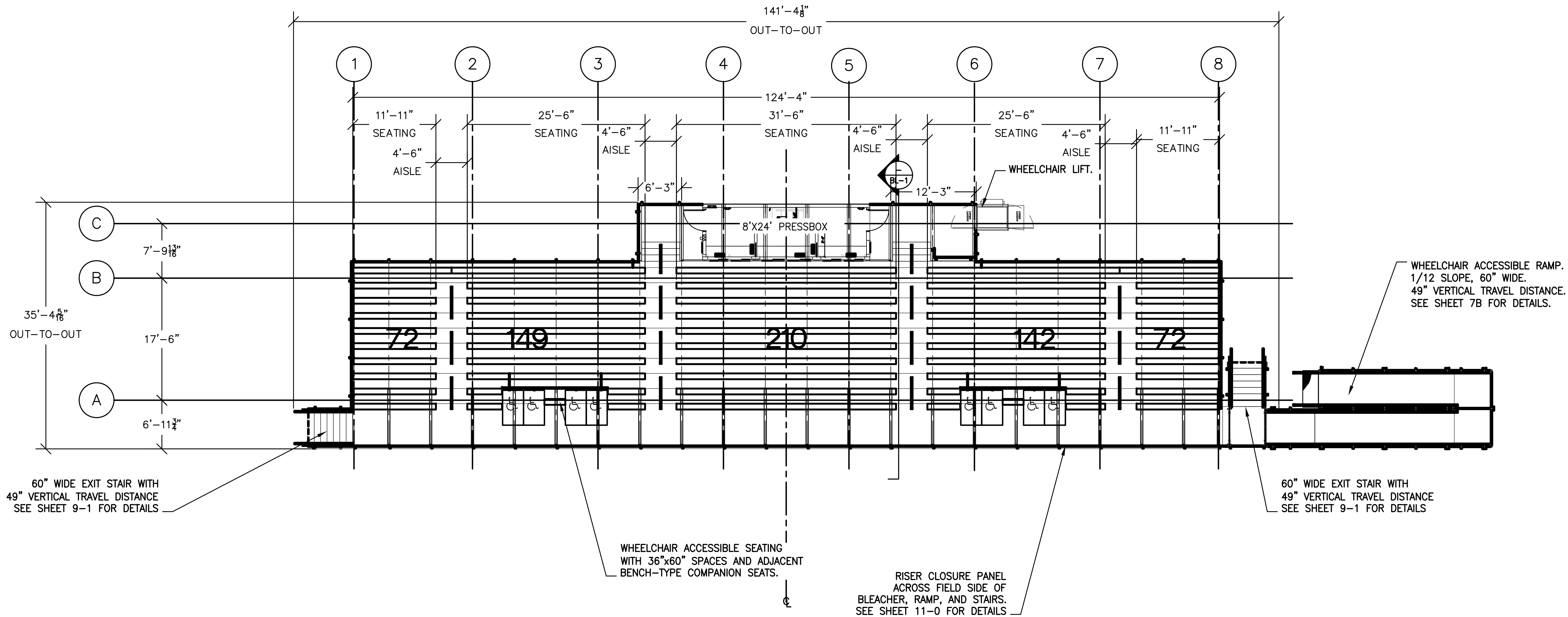
BASE BID  
BLEACHER DETAIL  
SHEET 2 OF 2



WING NO.

FL-3

OF 55



## SEATING PLAN

SCALE:  $1/8" = 1'-0"$

ROWS 10	ELEVATION 49"	
RISE 8	RUN 26	
DECK SYSTEM —	WELDED	
DECK FINISH —	SSRD	
BENCH SEATING CAPACITY		645
CHAIR SEATING CAPACITY		0
WHEELCHAIR SEATING CAPACITY		8
COMPANION SEATING CAPACITY		4
<hr/>		
TOTAL SEATING CAPACITY		657



MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

2. ALL COLUMN ANCHOR BOLTS MUST HAVE A 4" PROJECTION (+/- 1/8") ABOVE THE TOP OF PIER ELEVATION.
3. MAXIMUM HORIZONTAL TOLERANCE OF ANCHOR BOLT PLACEMENT SHALL BE 1/8".
4. ALL UNDERGROUND UTILITIES ARE TO BE LOCATED AND MARKED DURING REVIEW PROCESS PRIOR TO FOUNDATION EXCAVATION. DANT CORP. SHALL NOT BE RESPONSIBLE FOR DAMAGE TO UNDERGROUND UTILITIES.
5. MINIMUM FOOTING DEPTH IS DETERMINED BY STATE AND LOCAL BUILDING CODES.
6. SOIL BEARING PRESSURE IS TO BE DETERMINED BY SOILS ENGINEER.

GRAPHIC SCALE

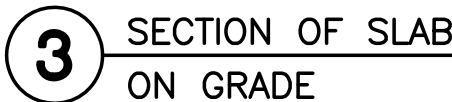
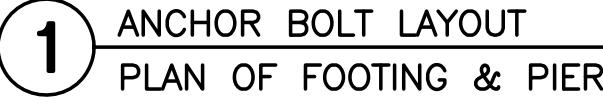
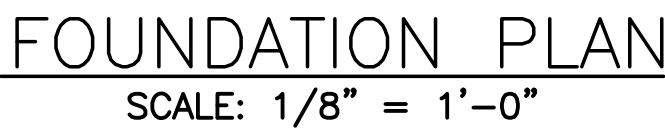
SHEET TITLE

ALTERNATE  
BLEACHER DETAIL  
SHEET 1 OF 2

DRAWING NO.

BL-4

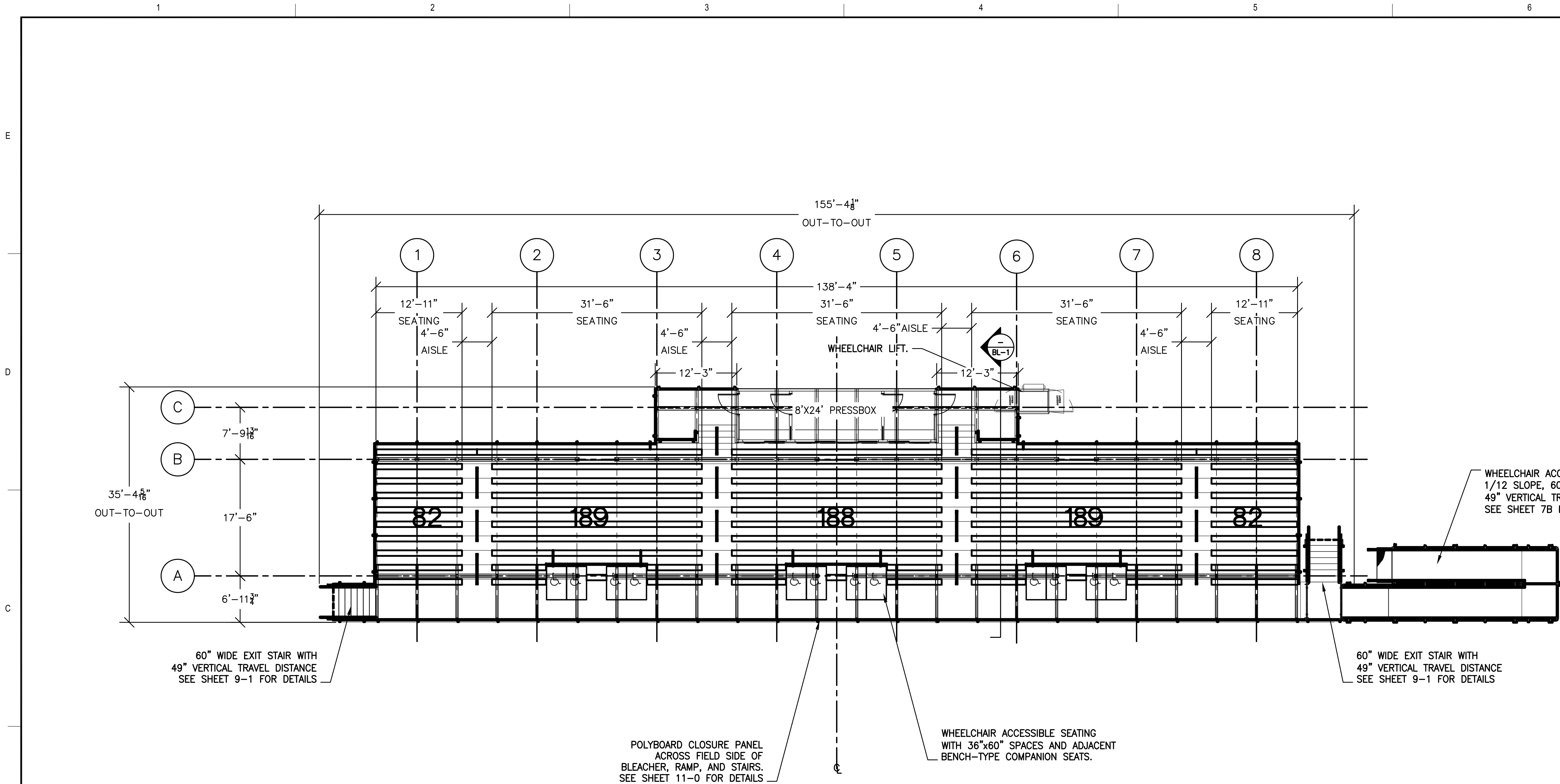
40 OF 55



ASSUMED FROST DEPTH - 42"  
ASSUMED SOIL BEARING CAPACITY - 3000PSF



F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_BLD.dwg, 3/12/2020 12:14:13 PM, dfr, Adobe PDF



SEATING PLAN  
SCALE: 1/8" = 1'-0"

ROWS	10	ELEVATION	49"
RISE	8	RUN	26
DECK SYSTEM	- WELDED		
DECK FINISH	- SSRD		
BENCH SEATING CAPACITY	730		
CHAIR SEATING CAPACITY	0		
WHEELCHAIR SEATING CAPACITY	12		
COMPANION SEATING CAPACITY	6		
TOTAL SEATING CAPACITY		748	



Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

PERMIT SET

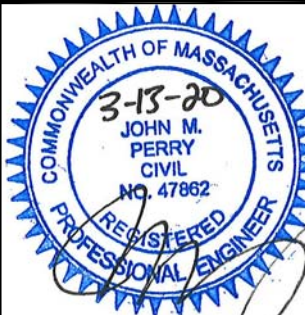
PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527  
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_BL		
DESIGNED BY	KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE

ALTERNATE  
BLEACHER DETAIL  
SHEET 2 OF 2



DRAWING NO.

BL-5

41 OF 55







This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.		716383	
CADD FILE		716383_PB	
DESIGNED BY		KFR	
DRAWN BY		DFN/KFR	
CHECKED BY		JMP	
DATE		03/13/2020	
DRAWING SCALE		1/2" = 1'	

GRAPHIC SCALE

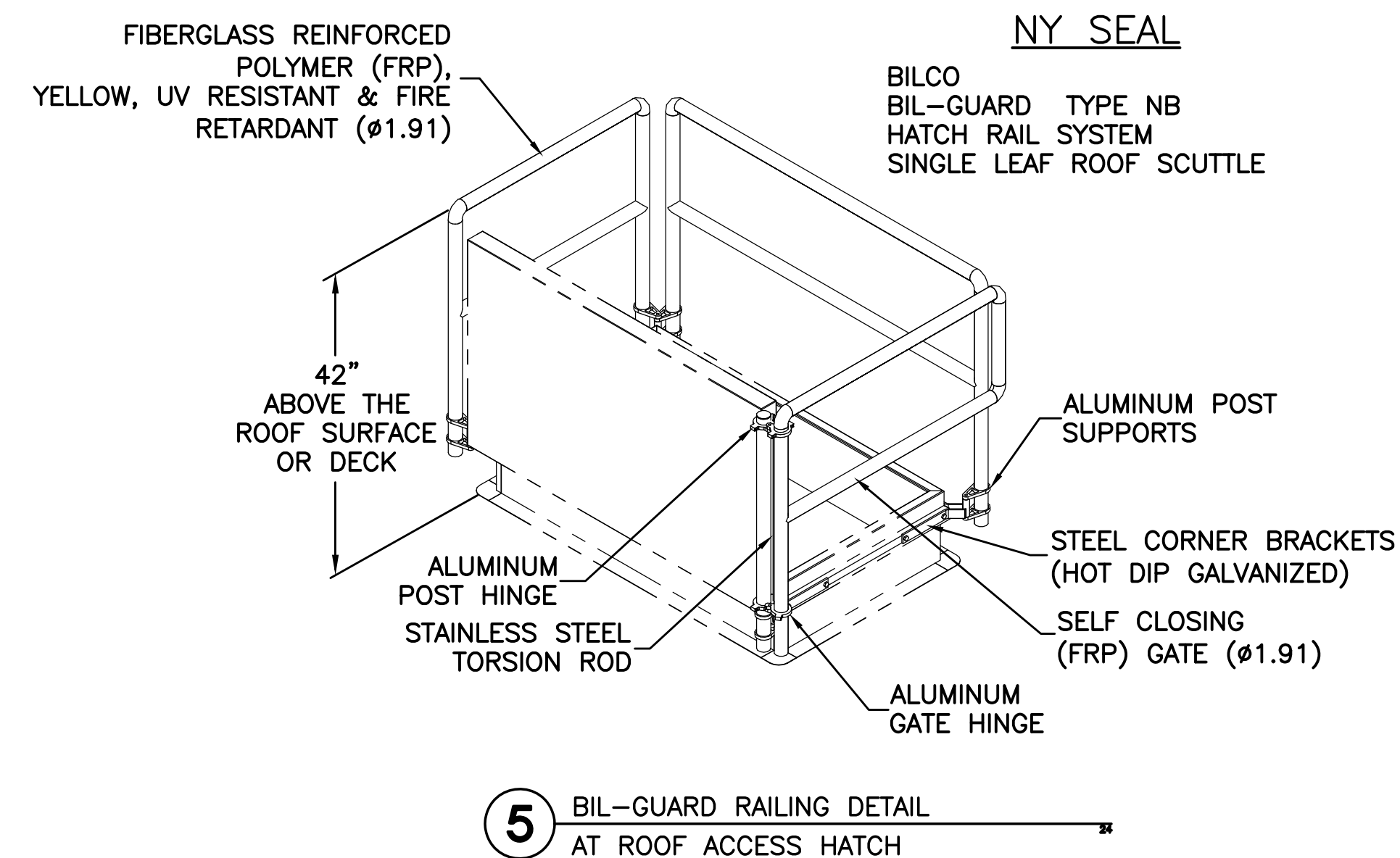
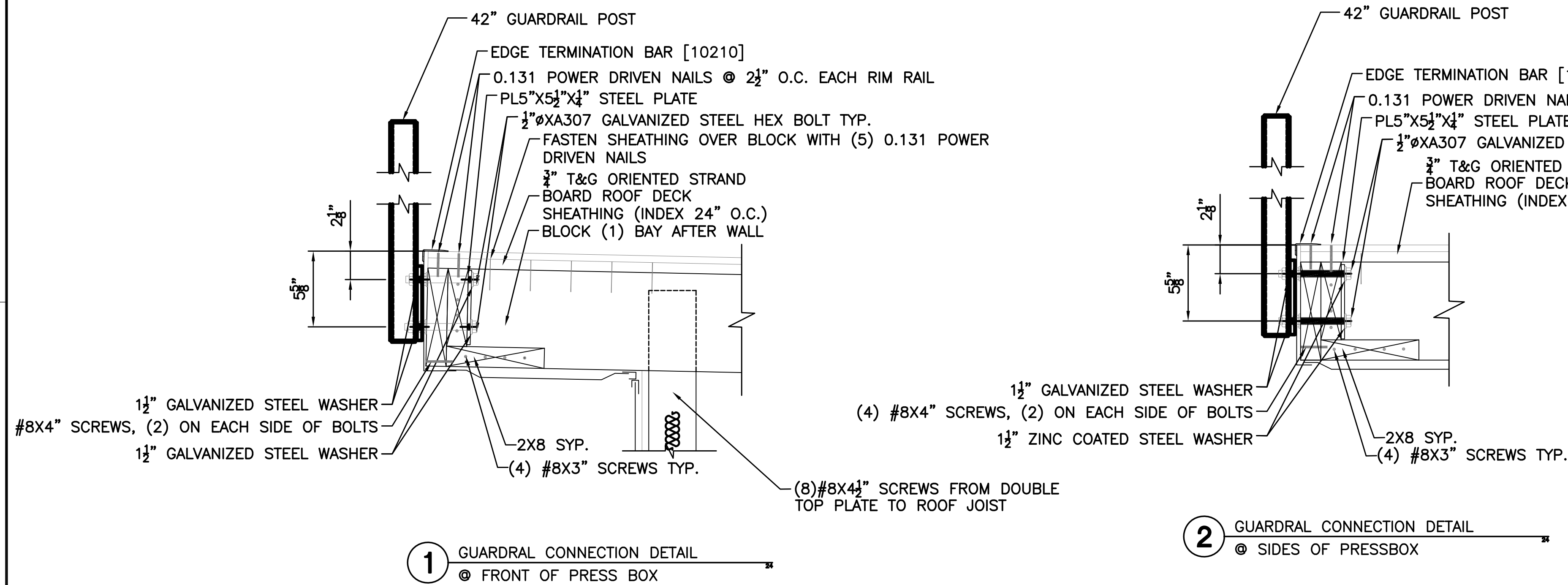
SHEET TITLE

PRESS BOX  
DETAIL  
SHEET 2 OF 4

DRAWING NO.

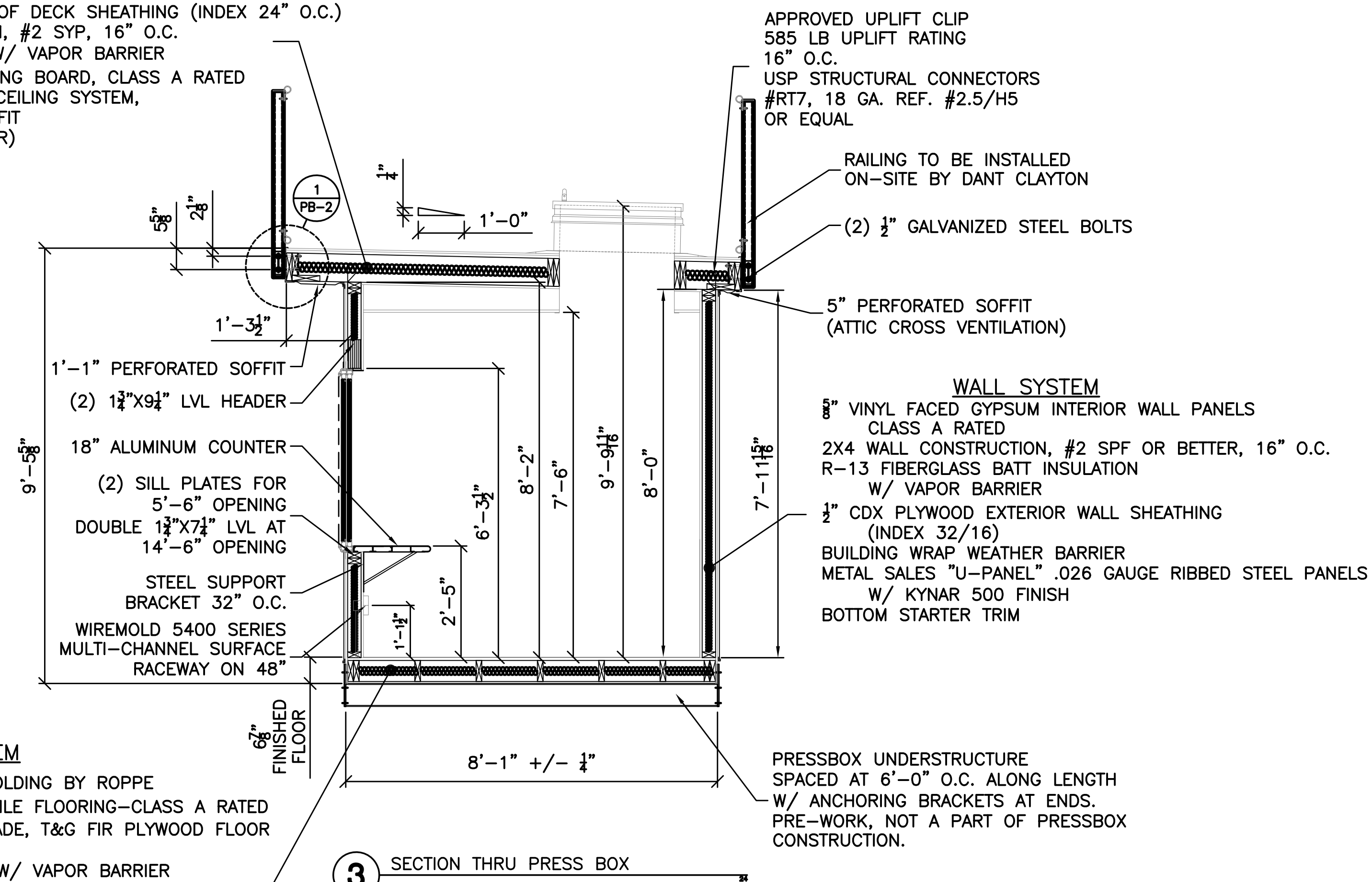
~~PB-2~~

43 OF 55



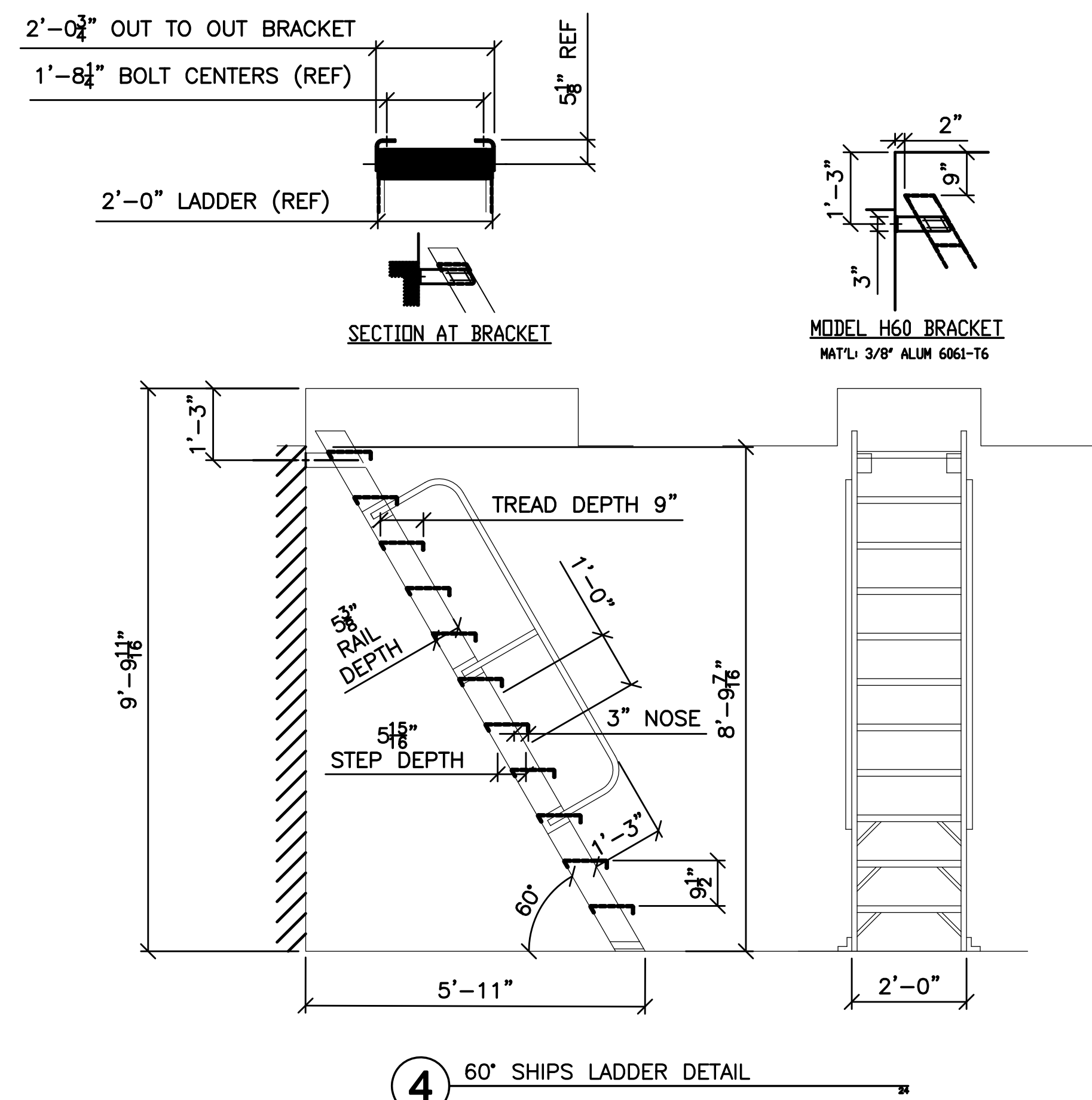
## ROOFING SYSTEM

DECKING .060 POLYESTER REINFORCED SKID AND SPIKE  
RESISTANT PVC MEMBRANE FULLY ADHERED  
1" T&G ORIENTED STRAND BOARD ROOF DECK SHEATHING (INDEX 24" O.C.)  
2X8 TRANSVERSE ROOF JOIST SYSTEM, #2 SYP, 16" O.C.  
R-19 FIBERGLASS BATT INSULATION W/ VAPOR BARRIER  
3/8" TYPE-X FIRE RATED GYPSUM CEILING BOARD, CLASS A RATED  
US GYPSUM 24" X 24" X .5" SUSPENDED CEILING SYSTEM,  
MASTIC FASCIA AND PERFORATED SOFFIT  
(CONTINUOUS AROUND PERIMETER)



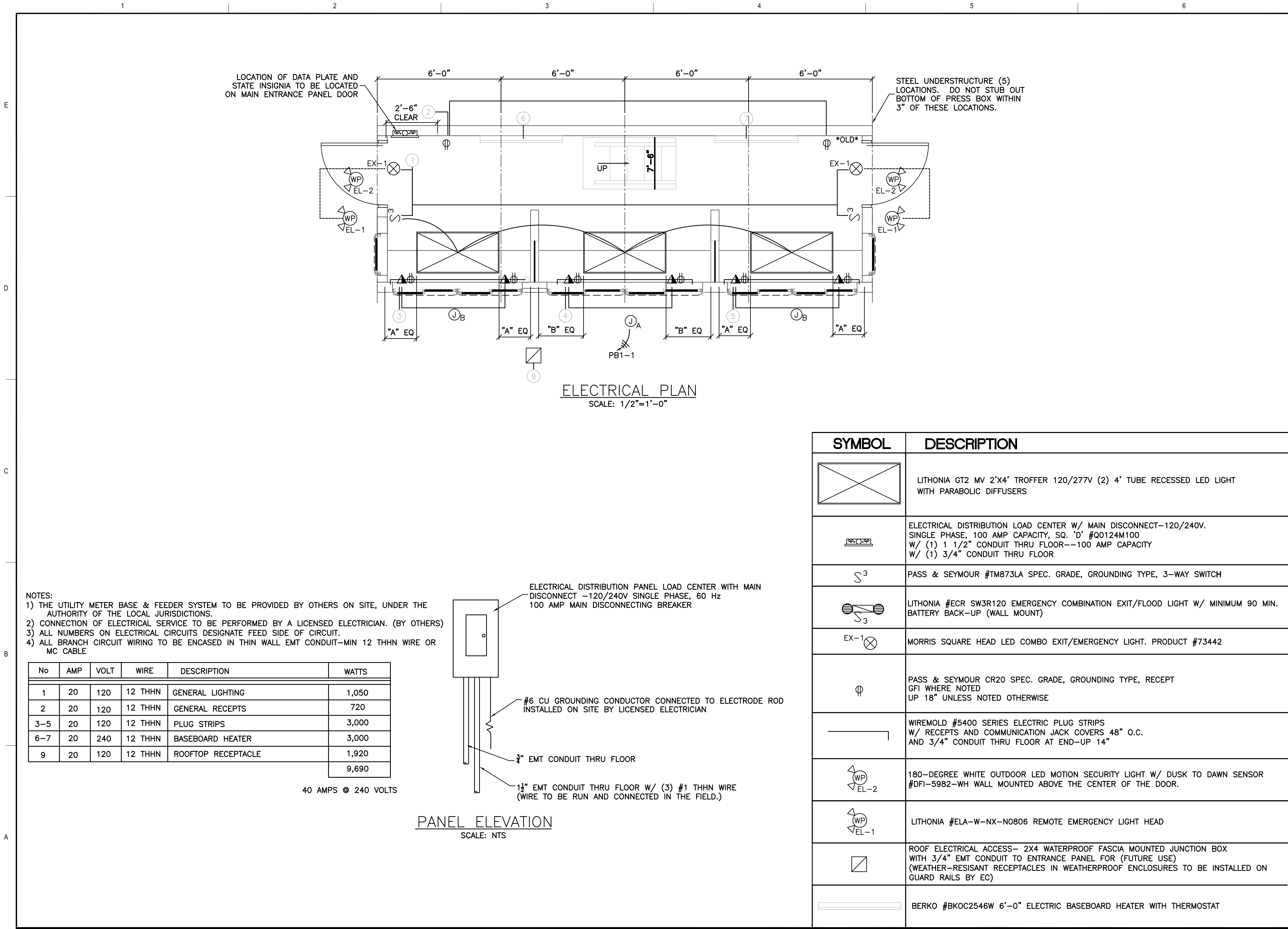
## FLOORING SYSTEM


4" THERMOPLASTIC RUBBER BASE MOLDING BY ROPPE  
1/8" ARMSTRONG VINYL COMPOSITION TILE FLOORING—CLASS A RATED  
3/4" STURDIFLOOR, UNDERLAYMENT GRADE, T&G FIR PLYWOOD FLOOR  
DECKING (INDEX 24" O.C.)  
R-19 FIBERGLASS BATT INSULATION W/ VAPOR BARRIER  
2X6 LONGITUDINAL FLOOR CONSTRUCTION, #2 SYP. ,16" O.C.  
(SPliced 16"—0" O.C. AND STAGGERED  
1/2" PLYWOOD UNDERBELLY (INDEX 32/16) W/  
CONTINUOUS VENT 96" O.C. (MIN. 2)  
(PAINTED INDUSTRIAL GRADE ASPHALT BASED BLACK)





F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_Pb.dwg, 3/12/2020 12:11:17 PM, dfr, Adobe PDF





**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA 02189P 781.335.6465 F 781.335.6467  
www.gahc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

**PERMIT SET**

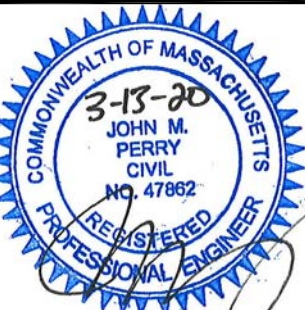
**PROJECT**

MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527

**OWNER**

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

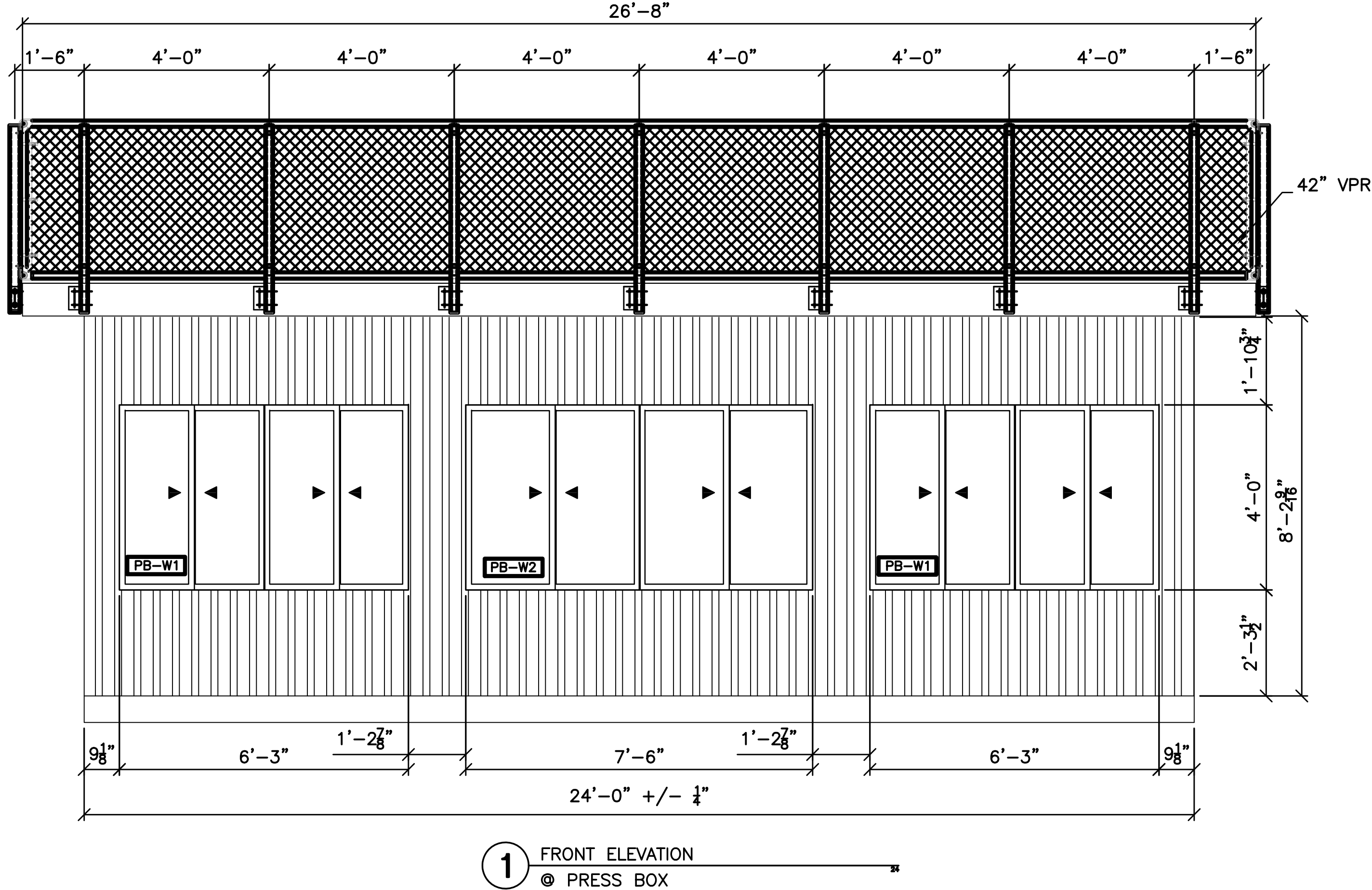
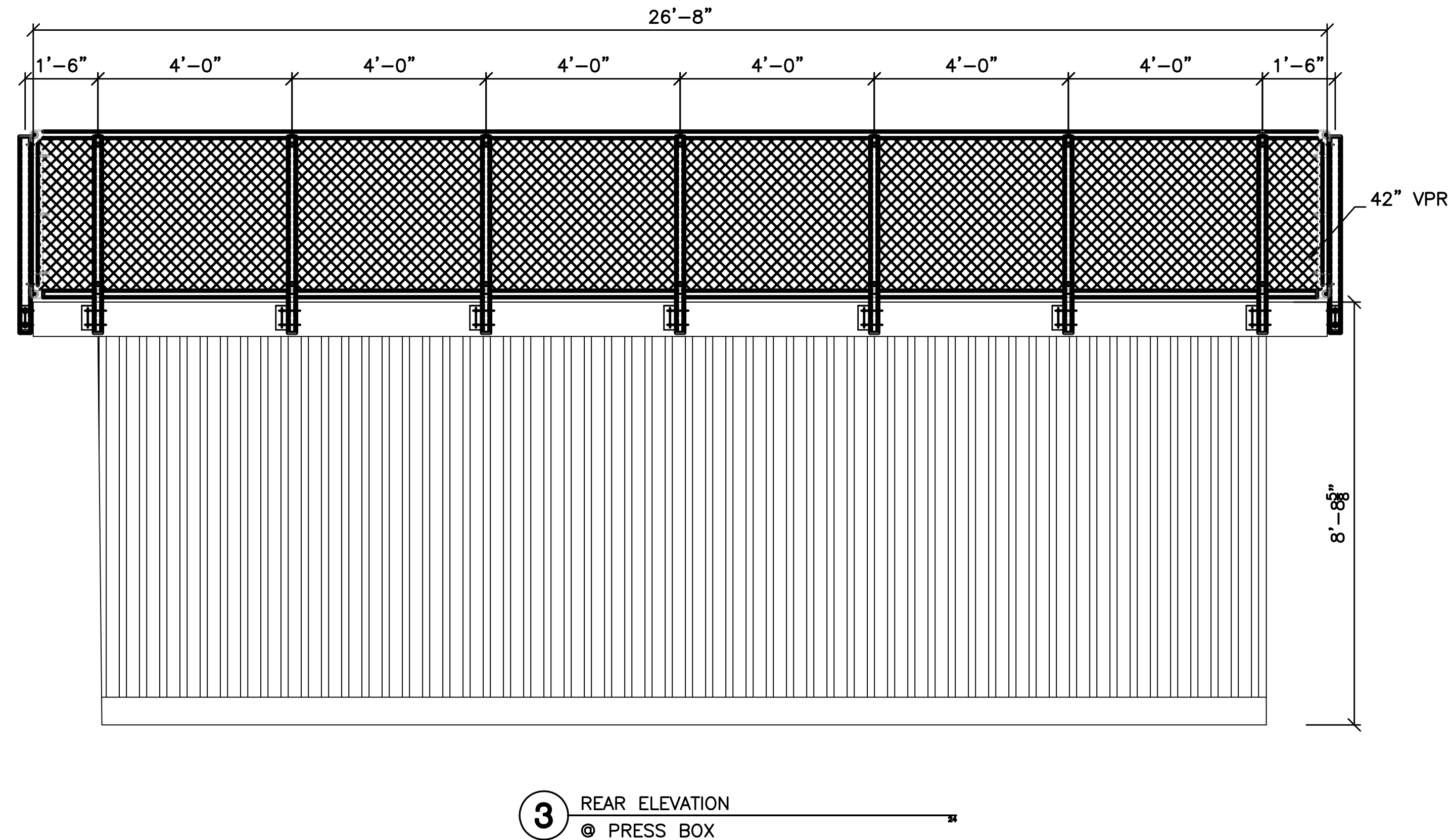
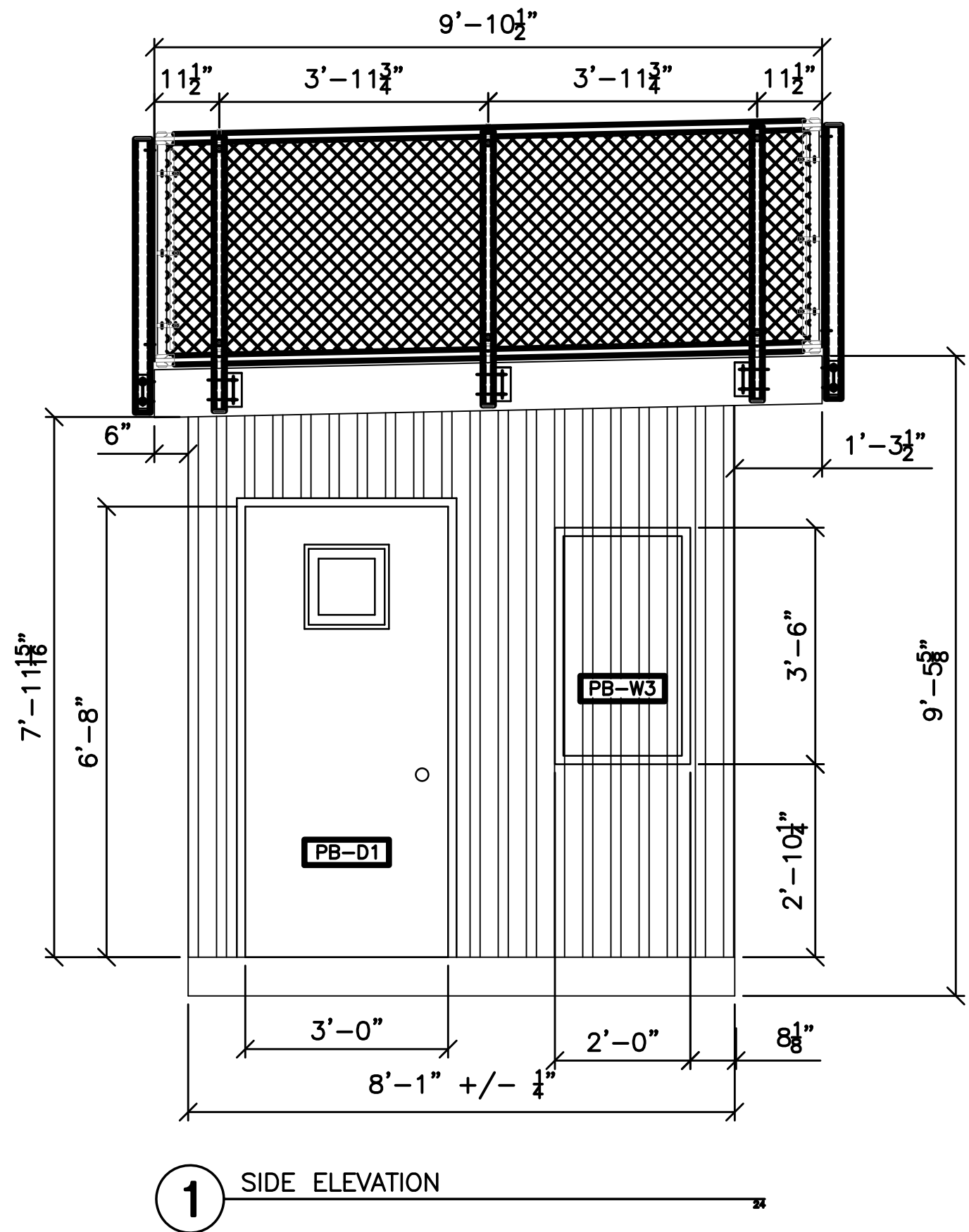
NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_PB		
DESIGNED BY	KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1/2" = 1'		
GRAPHIC SCALE			
SHEET TITLE			
PRESS BOX DETAIL SHEET 3 OF 4			
DRAWING NO.			
PB-3			
44			OF 55



3-15-20  
JOHN M. PERRY  
NO. 41982  
REGISTERED  
PROFESSIONAL ENGINEER  
STATE OF MASSACHUSETTS



1 2 3 4 5 6



### DOOR SCHEDULE

DOOR						FRAME	
KEY	WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	MATERIAL	FIRE RATING
PB-D1	3'-0"	6'-8"	0'-1 3/4"	3	STEEL	STEEL	

PB-D1 - 36"x80" 18GA. INSULATED HOLLOW METAL DOOR WITH 16GA. STEEL WRAP AROUND FRAMES, VIEWING WINDOW, VINYL WEATHER-STRIPPING, ALUMINUM THRESHOLD AND KEYED LEVER HANDLED LOCKSETS.

\*NOTE - DOORS INSTALLED PER MANUFACTURERS INSTALLATION DETAILS

### WINDOW SCHEDULE

KEY	WIDTH	HEIGHT	TYPE	FRAME	U-FACTOR	SHGC
PB-W1	6'-3"	4'-0"	DOUBLE SLIDER	VINYL	.29	.29
PB-W2	7'-6"	4'-0"	DOUBLE SLIDER	VINYL	.29	.29
PB-W3	2'-0"	3'-6"	PICTURE	VINYL	.29	.29
PB-W4	2'-0 3/8"	3'-6"	GLASS ONLY	N/A	N/A	N/A

MIN. NET VENTABLE AREA IS 4% OF TOTAL FLOOR SQ/FT - 192 X .04 = 7.7 SQ/FT

MIN. NET GLAZED AREA SHALL BE NOT LESS THAN 8% TOTAL FLOOR SQ/FT - 192 X .08 = 15.4 SQ/FT

PB-W1 - SOFT-LITE "BARRINGTON DSL7 HS", DOUBLE HORIZONTAL SLIDER WINDOWS W/ EXTRUDED VINYL FRAMES, AAMA STRUCTURAL RATING, W/ 3/4" INSULATED LOW-E, ARGON FILLED TEMPERED GLASS W/ REMOVABLE INSECT SCREENS OR EQUAL. NATURAL LIGHT ALLOWED = 50 SQ/FT, VENTABLE AREA = 25 SQ/FT

PB-W2 - SOFT-LITE "BARRINGTON DSL7 HS", DOUBLE HORIZONTAL SLIDER WINDOWS W/ EXTRUDED VINYL FRAMES, AAMA STRUCTURAL RATING, W/ 3/4" INSULATED LOW-E, ARGON FILLED TEMPERED GLASS W/ REMOVABLE INSECT SCREENS OR EQUAL. NATURAL LIGHT ALLOWED = 25 SQ/FT, VENTABLE AREA = 12 SQ/FT

PB-W3 - SOFT-LITE "BARRINGTON DSL7 HS", FIXED FRAME PICTURE WINDOWS W/ EXTRUDED VINYL FRAMES, AAMA STRUCTURAL RATING, W/ 3/4" INSULATED LOW-E, ARGON FILLED TEMPERED GLASS. NATURAL LIGHT ALLOWED = 7 SQ/FT

PB-W4 - TEMPERED SAFETY GLASS WINDOW. INSERTED INTO PARTITION WALLS AT SAME HEIGHT AS HEADER.

\*NOTE - GLAZING DESIGN PRESSURE = 22 PSF MINIMUM  
WINDOWS INSTALLED PER MANUFACTURERS INSTALLATION DETAILS



Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gahc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

PERMIT SET

PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS

12 MARTIN STREET  
MILLBURY, MA 01527

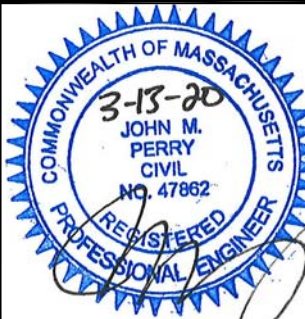
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_PB		
DESIGNED BY	KFR		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1/2" = 1'		

GRAPHIC SCALE

SHEET TITLE

PRESS BOX  
DETAIL  
SHEET 4 OF 4



DRAWING NO.

PB-4

45 OF 55



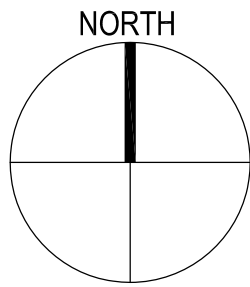
E

D

C

B

A



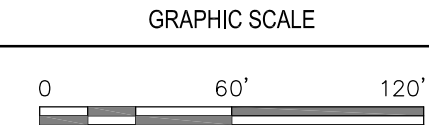
Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

PERMIT SET

PROJECT  
MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527  
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_EWS		
DESIGNED BY	DFN		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1" = 60'		



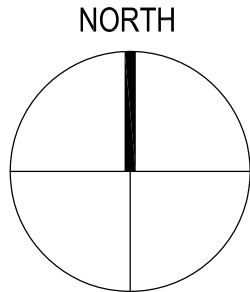
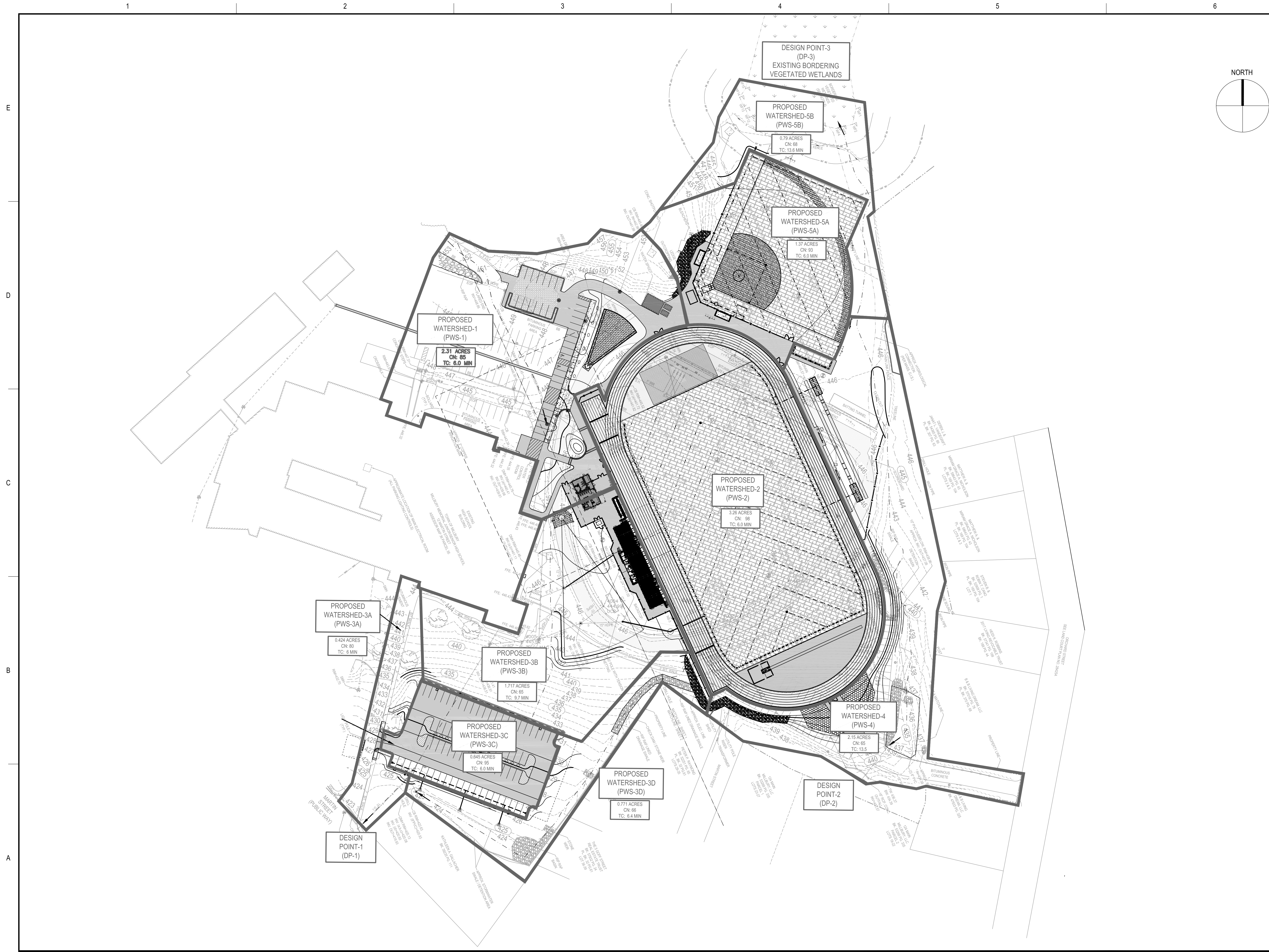
SHEET TITLE

EXISTING  
WATERSHED  
PLAN



DRAWING NO.  
EWS





Gale Associates, Inc.  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com  
Boston Baltimore Orlando Hartford Bedford

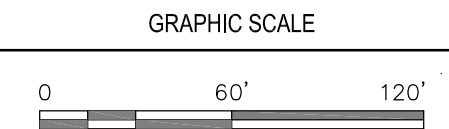
This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates  
Inc. Copyright©2020

## PERMIT SET

PROJECT  
**MILLBURY JUNIOR/SENIOR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA 01527**

OWNER  
**MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527**

NO.	DATE	DESCRIPTION	BY
PROJECT NO.	716383		
CADD FILE	716383_PWS		
DESIGNED BY	DFN		
DRAWN BY	DFN/KFR		
CHECKED BY	JMP		
DATE	03/13/2020		
DRAWING SCALE	1" = 60'		

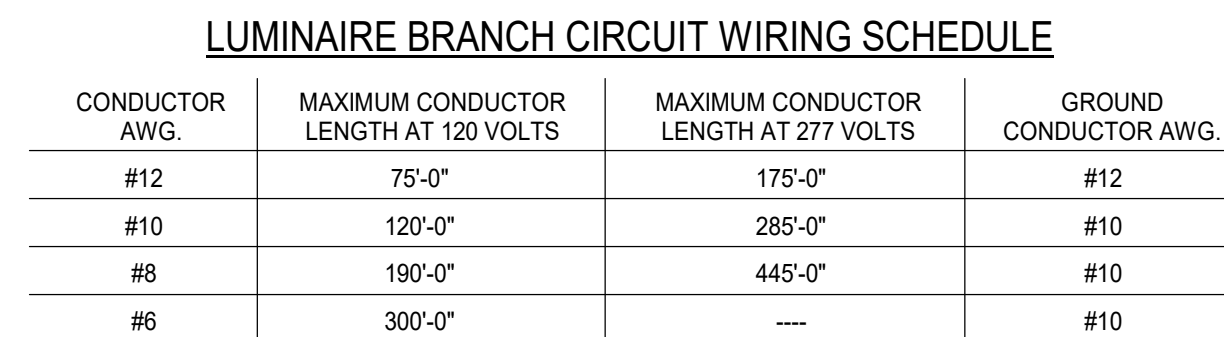
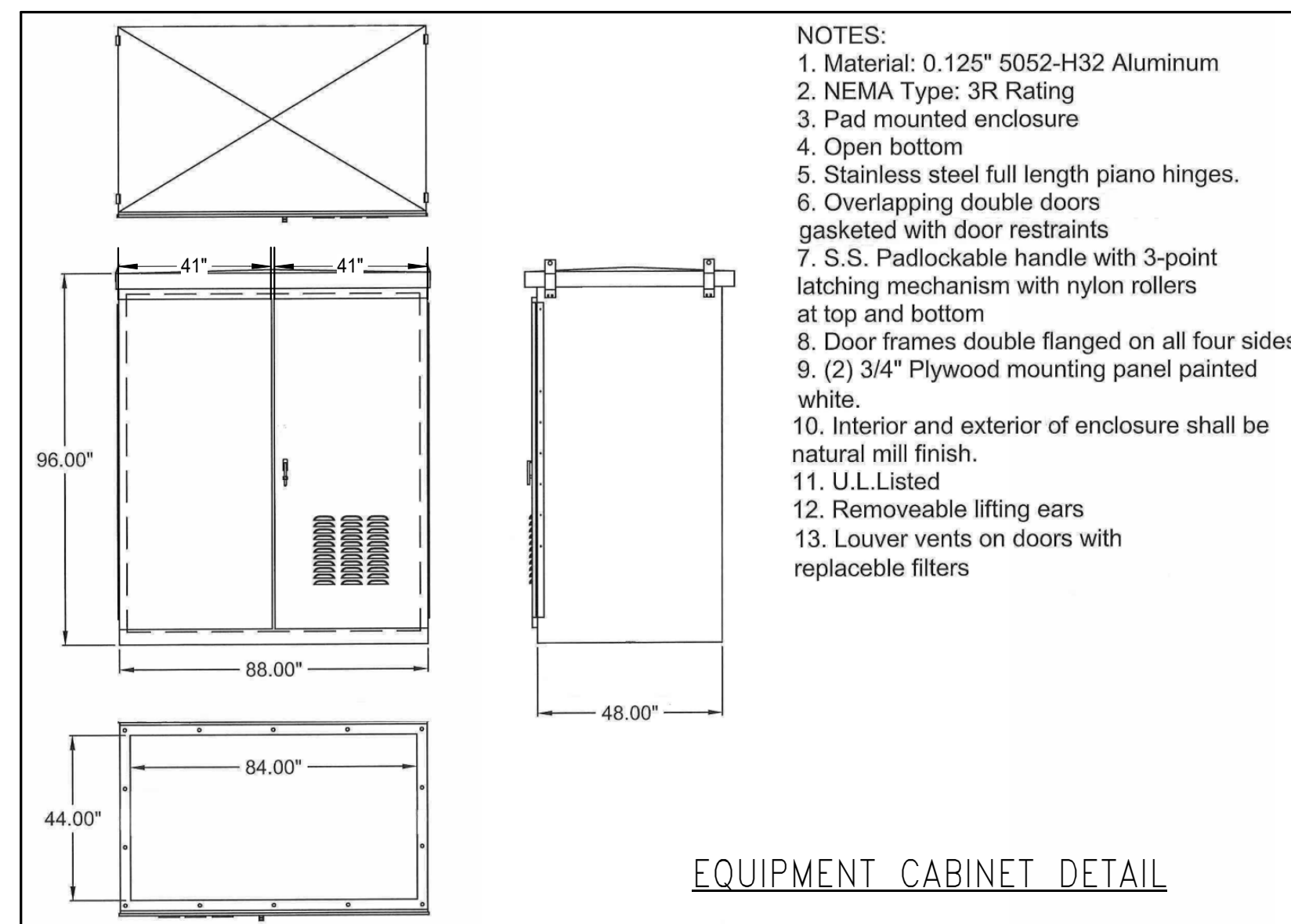
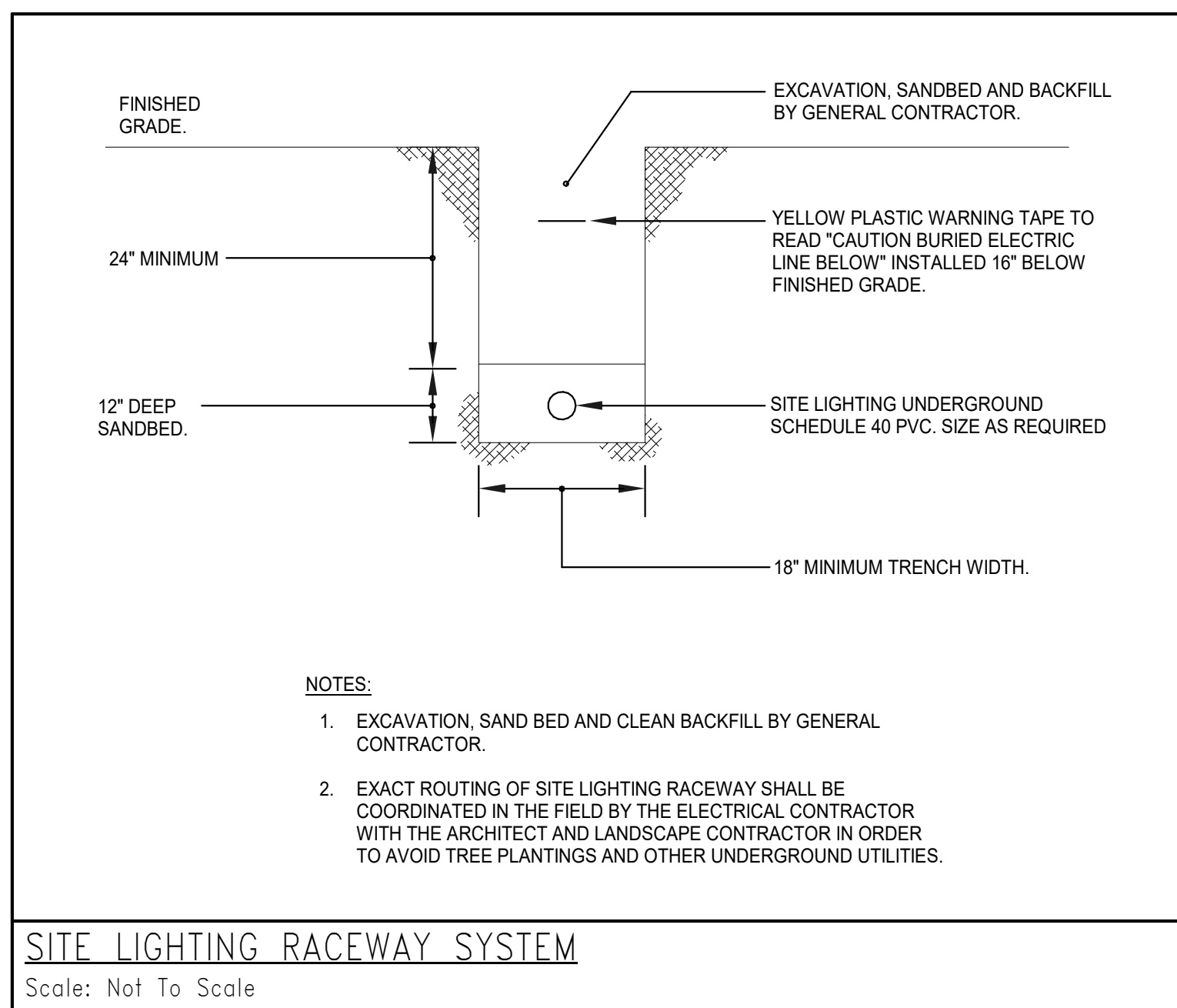


## PROPOSED WATERSHED PLAN



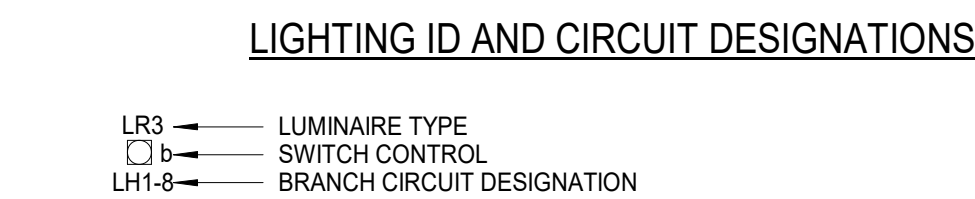
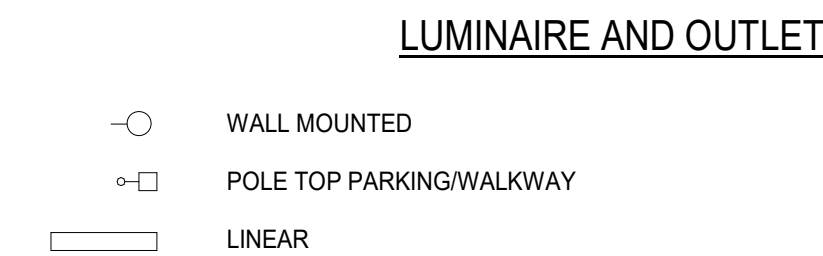
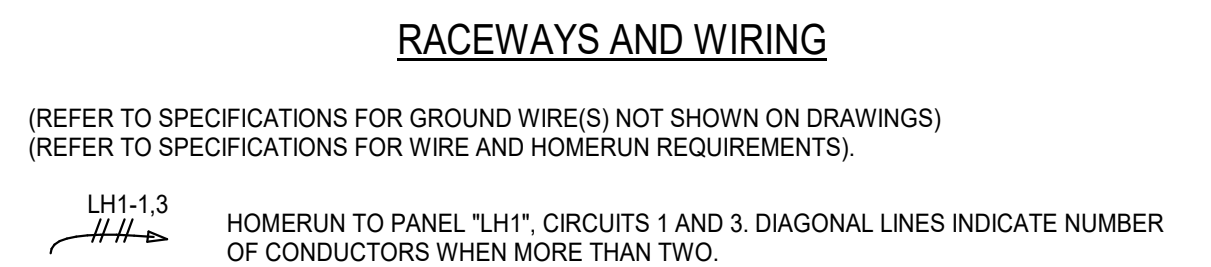
DRAWING NO.  
**PWS**  
47 OF 55



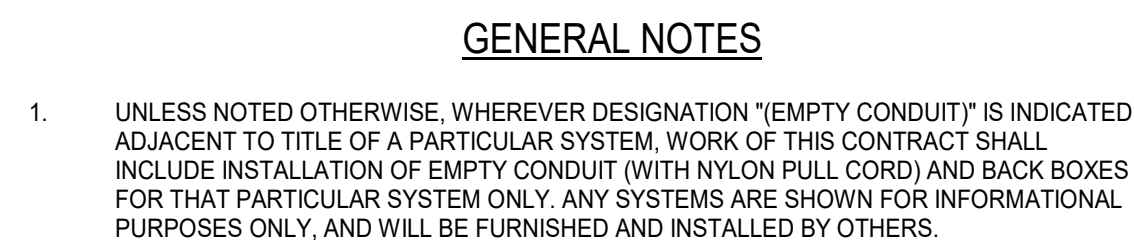
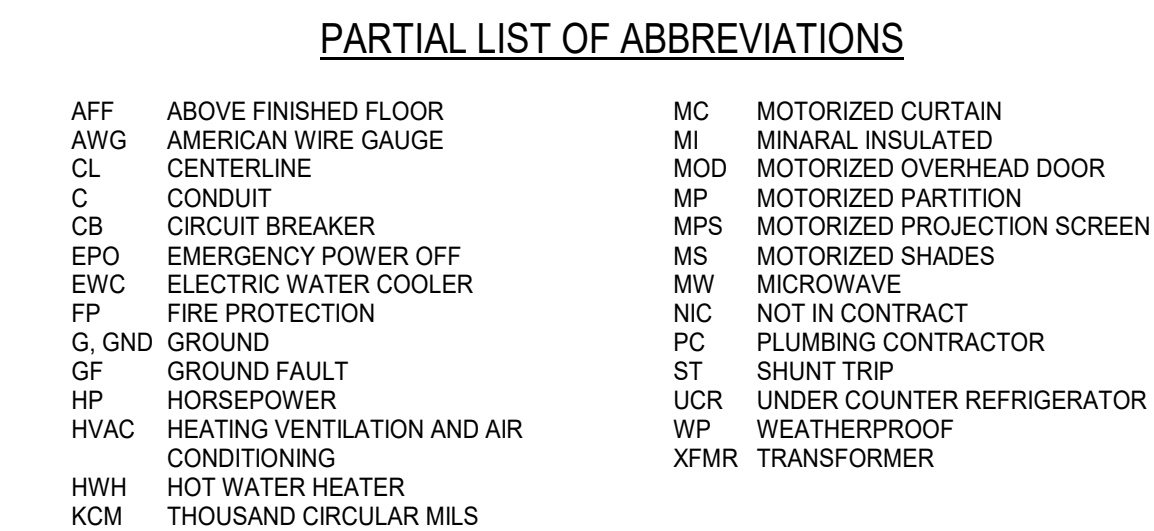
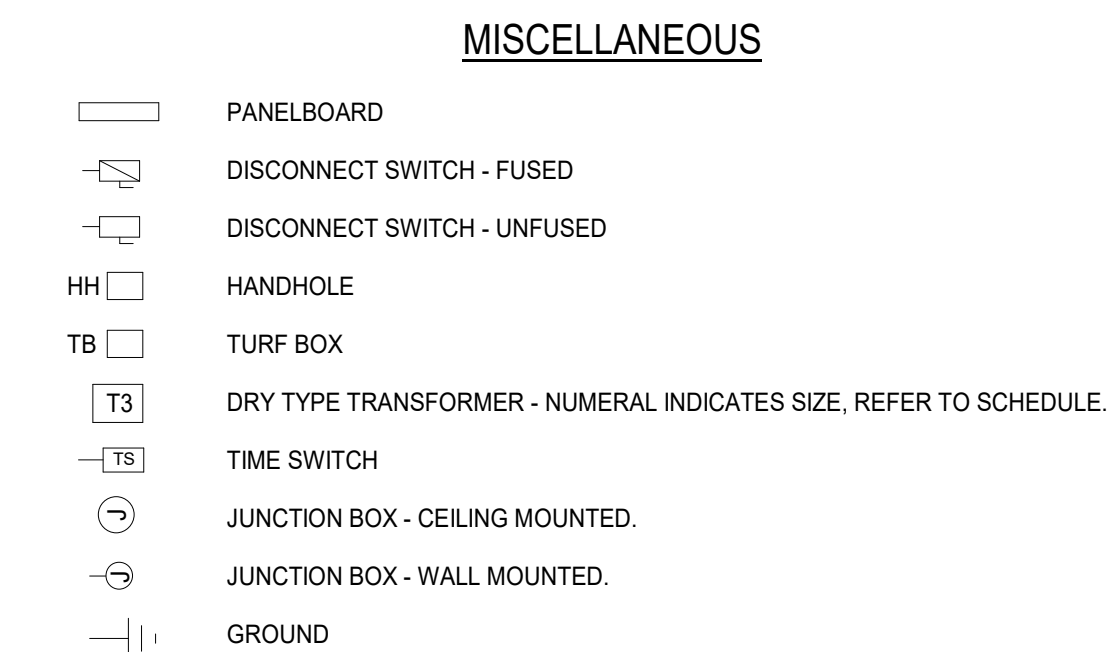
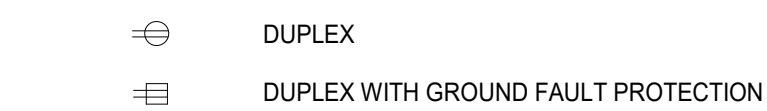


LUMINAIRE BRANCH CIRCUIT WIRING SCHEDULES NOTES:

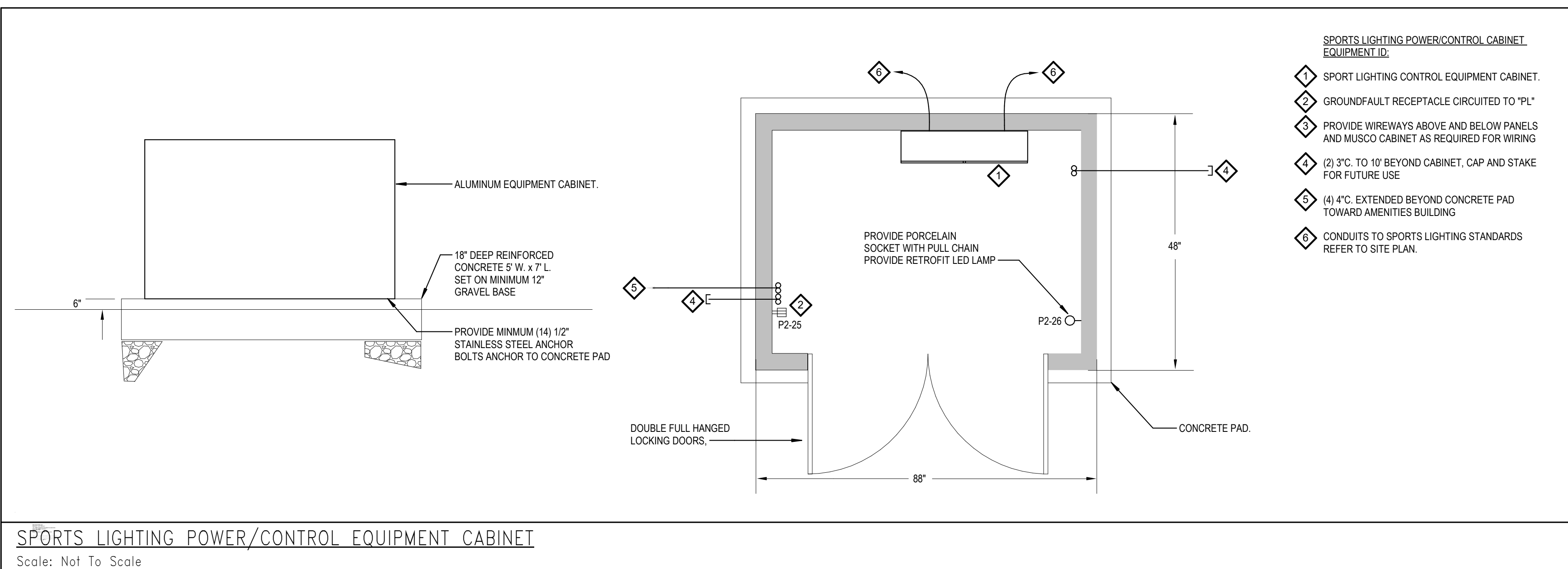
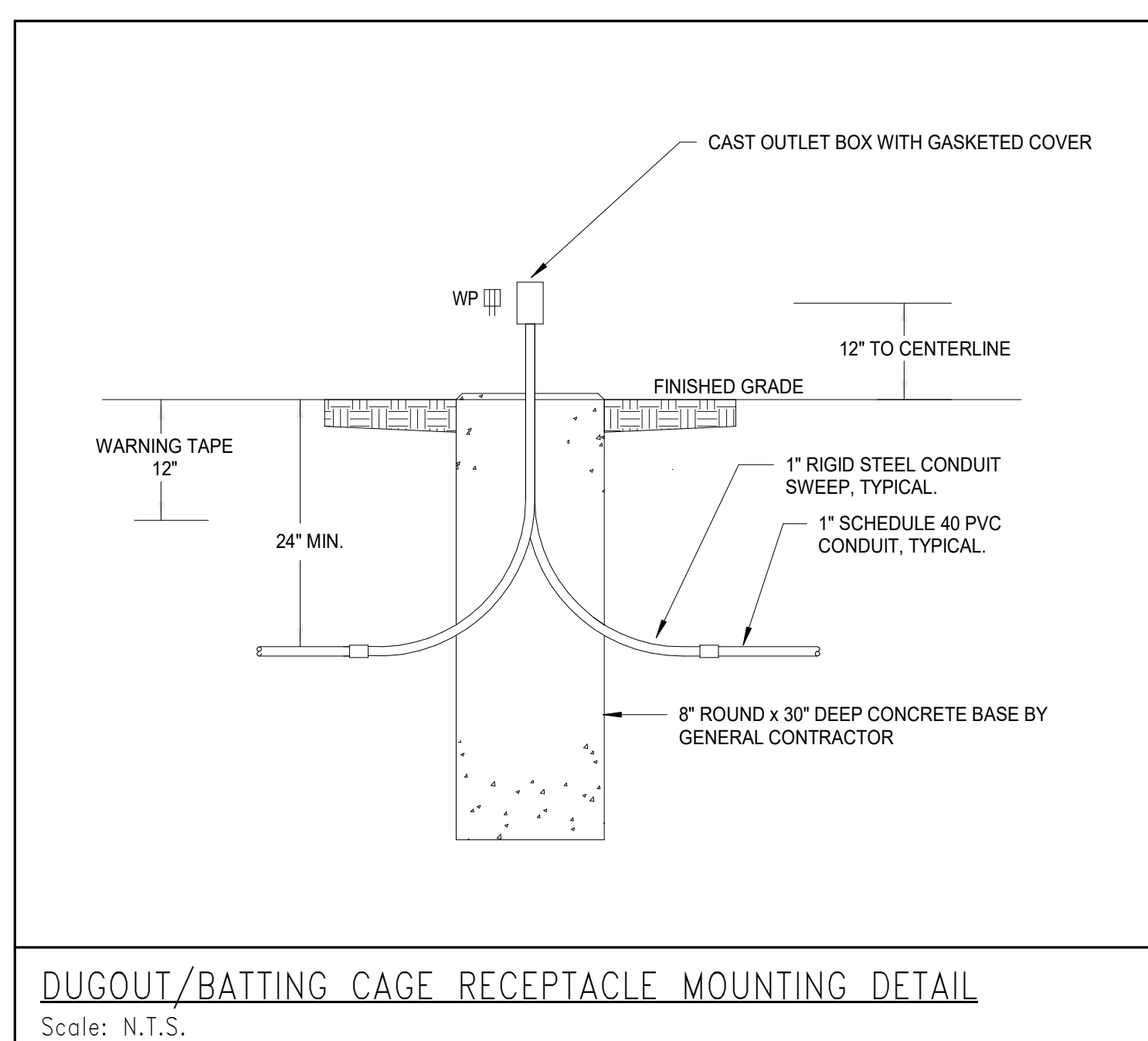
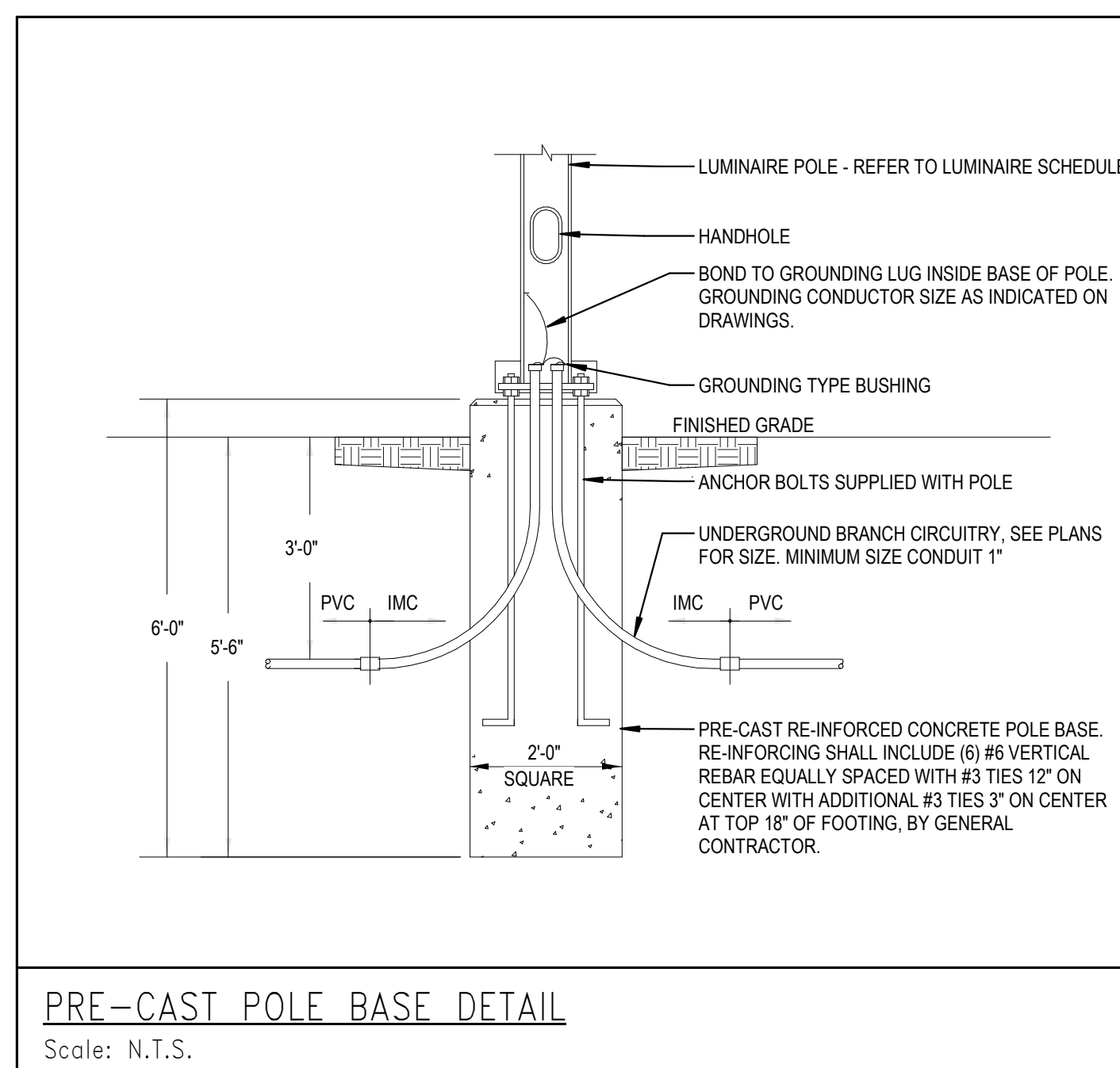
1. BASED ON A 20 AMP CIRCUIT LOADED TO 12 AMP USING SINGLE PHASE, 2 WIRE CIRCUITS.
2. THE ABOVE SCHEDULE REPRESENTS MINIMUM CONDUCTOR SIZE BASED ON LENGTH OF CONDUCTOR FROM PANEL TO CENTER OF LOAD TO OVERCOME VOLTAGE DROP.
3. MAKE PROVISIONS FOR JUNCTION BOX ADJACENT TO OUTLET TO TRANSITION TO #12 WIRE FOR FINAL TERMINATIONS TO DEVICE AS REQUIRED.



CENTERLINE 18" A.F.F. EXCEPT AS NOTED, REFER TO SPECIFICATIONS FOR MANUFACTURER AND CATALOG NUMBER. NUMERAL INDICATES BRANCH CIRCUIT DESIGNATION.



ELECTRICAL DRAWING LIST			
DRAWING NUMBER	DRAWING TITLE	SHEET NUMBER	
		INDEX	TOTAL
E000	ELECTRICAL LEGEND	1	6
E001	POWER AND SYSTEMS SITE PLAN	2	6
E002	POWER AND SYSTEMS SITE PLAN PARKING	3	6
E201	ELECTRICAL SPOURS LIGHTING DETAILS	4	6
E202	ELECTRICAL DETAILS	6	6
E300	ELECTRICAL SCHEDULES	5	6





LUMINAIRE SCHEDULE					
FIXTURE TYPE	MANUFACTURER	CATALOG NUMBER	LAMP	BALLAST/DRIVER	REMARKS
P1	LITHUANIA	DSX0 LED P4 40K T3MMVOLT	1		DSX0 LED P4 40K T3M MVOLT

CONDUIT LEGEND	
A	(1) 2" SPORTS LIGHTING POWER
B	(1) 2" POWER (1) 2" LOW VOLTAGE
C	(1) 2" LOW VOLTAGE
D	(2) 1" C (1) POWER (1) SPEAKER / AMP WIRING
E	(1) 3" C SPORTS LIGHTING AND MISCELLANEOUS POWER (1) 2" C LOW VOLTAGE WIRING
F	(3) 3" C SPORTS LIGHTING AND MISCELLANEOUS POWER
G	(2) 3" C SPORTS LIGHTING, MISCELLANEOUS POWER AND LOW VOLTAGE
H	(1) 3" C SPORTS LIGHTING POWER AND MISCELLANEOUS POWER

- NOTES:
- COORDINATE EXACT ROUTING OF ALL CONDUITS, HANDHOLE (HH) AND FEEDS TO MISCELLANEOUS SITE EQUIPMENT PRIOR TO ROUGHING.
  - ALL UNDERGROUND RACEWAYS SHALL BE PROVIDED WITH WARNING TAPE A MINIMUM 12" BELOW FINISHED GRADE ABOVE ALL RACEWAYS.
  - HANDHOLE TO SERVE FLAG POLE LIGHTING AND SCOREBOARD. PROVIDE 1" C FROM HANDHOLE TO FLAG POLE AND (2) 1" C TO SCOREBOARD, ONE FOR SCOREBOARD POWER AND ONE FOR SPEAKER POWER. AT SCOREBOARD CONVERT PVC TO RIGID STEEL BELOW GRADE, PROVIDE DISCONNECT SWITCH MOUNTED TO SCOREBOARD SUPPORT STRUCTURE.
  - HANDHOLE TO SERVE PRESSBOX, REFER TO DETAIL.
  - (4) 4" C EXTENDED BEYOND EQUIPMENT PAD TOWARD AMENITIES BUILDING, (3) 4" C POWER, (1) 4" C LOW VOLTAGE.
  - (3) 3" C FROM EQUIPMENT CABINET FOR SPORTS LIGHTING CIRCUITS FROM SPORTS LIGHTING EQUIPMENT CABINET. (1) 3" C FOR LOW VOLTAGE WIRING.
  - GROUNDFAULT RECEPTACLE FOR DUGOUT, REFER TO DETAIL, COORDINATE EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGHING.
  - GROUNDFAULT RECEPTACLE FOR BATTING CAGE, REFER TO DETAIL, COORDINATE EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGHING.
  - SPORTS LIGHTING POLE A1 AND A2 PROVIDE 20A 1P 277V. CIRCUIT VIA TIME SWITCH FOR WALKWAY LUMINAIRE MOUNTED TO SPORTS LIGHTING STRUCTURE.
  - EXISTING UTILITY RISER POLE, PAD MOUNTED TRANSFORMER AND UTILITY SHED TO BE REMOVED. COORDINATE THE SHUTDOWN AND REMOVAL OF EXISTING UTILITY POLE AND TRANSFORMER WITH UTILITY CO. COORDINATE THE REMOVAL OF ALL FEEDERS TO EXISTING SPORTS LIGHTING AND SITE SLATED FOR REMOVAL. REFER TO DEMOLITION AND EROSION CONTROL PLAN DRAWING C003 FOR ADDITIONAL INFORMATION.
  - PROVIDE NEW HANDHOLE, 2" C UNDERGROUND CONDUIT, 3 #4, 1#4G TO EXISTING HIGH SCHOOL, SPLICE TO EXISTING FEEDER IN EXISTING PULLBOX WITHIN BUILDING REFER TO PHOTOS ON DRAWING E202.
  - TYPE "L1" LUMINAIRES MOUNTED UNDER BLEACHERS, PROVIDE STAINLESS STEEL UNISTRUT FOR MOUNTING. L1 LUMINAIRES SHALL BE FED FROM PRESSBOX LOAD CENTER VIA TIME SWITCH WIRING UNDER BLEACHERS SHALL BE IN GALVANIZED RIGID STEEL CONDUIT, CONNECTION TO LUMINAIRE SHALL BE MADE WITH LIQUID SEAL TITE.
  - TURF BOX FURNISHED BY TURF SUPPLIER, GROUNDFAULT DEVICE MOUNTED WITHIN TURF BOX WITH WEATHERPROOF COVER. STUB LOW VOLTAGE AND /OR SPARE CONDUITS 4" ABOVE FINISHED GRADE PROVIDE CAP ON CONDUITS.
  - 1 1/4" C FOR CIRCUITRY TO EXISTING LIGHTING ALONG ACCESS ROAD TO REMAIN, PROVIDE 2#6, 1#6 FROM PANELBOARD L1-9 VIA TIME CLOCK.
  - DISCONNECT AND REMOVE CIRCUITRY ASSOCIATED WITH EXISTING IRRIGATION SYSTEM, REFER TO PHOTOS ON DRAWING E202.
  - TURF BOX FOR MICROPHONE PORT.
  - DISCONNECT AND REMOVE (6) EXISTING PARKING LOT FIXTURES, (4) TO BE RE-INSTALLED AT NEW PARKING AREA SEE DRAWING E002, (2) TO BE TURNED OVER TO OWNER.



Gale Associates, Inc .  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com  
Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020



BID SET

MILLBURY JR / SR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

PROJECT NO.	6019880
DESIGNED BY	KJA
DRAWN BY	ERA
CHECKED BY	KJA
DATE	02/25/20
DRAWING SCALE	1" = 30'-0"

POWER AND SYSTEMS SITE PLAN

E001





This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

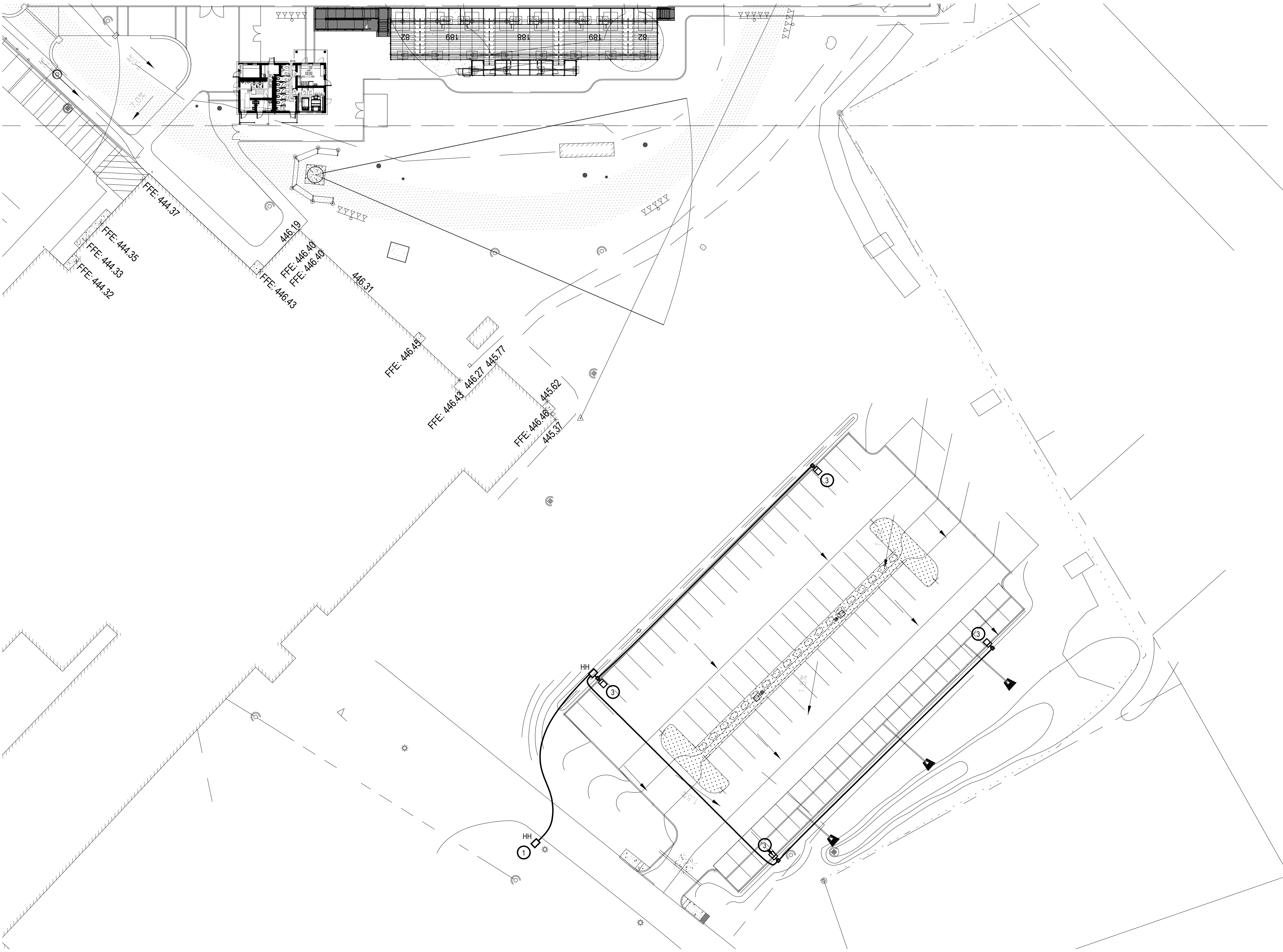


MILLBURY JR / SR HIGH SCHOOL ATHLETIC CAMPUS RENOVATIONS 12 MARTIN STREET MILLBURY, MA	MILLBURY PUBLIC SCHOOLS 12 MARTIN STREET MILLBURY, MA 01527
---	---

PROJECT NO.	6019880
DESIGNED BY	KJA
DRAWN BY	ERA
CHECKED BY	KJA
DATE	02/25/20
DRAWING SCALE	1" = 30'-0"

POWER AND SYSTEMS SITE  
PLAN PARKING

E002

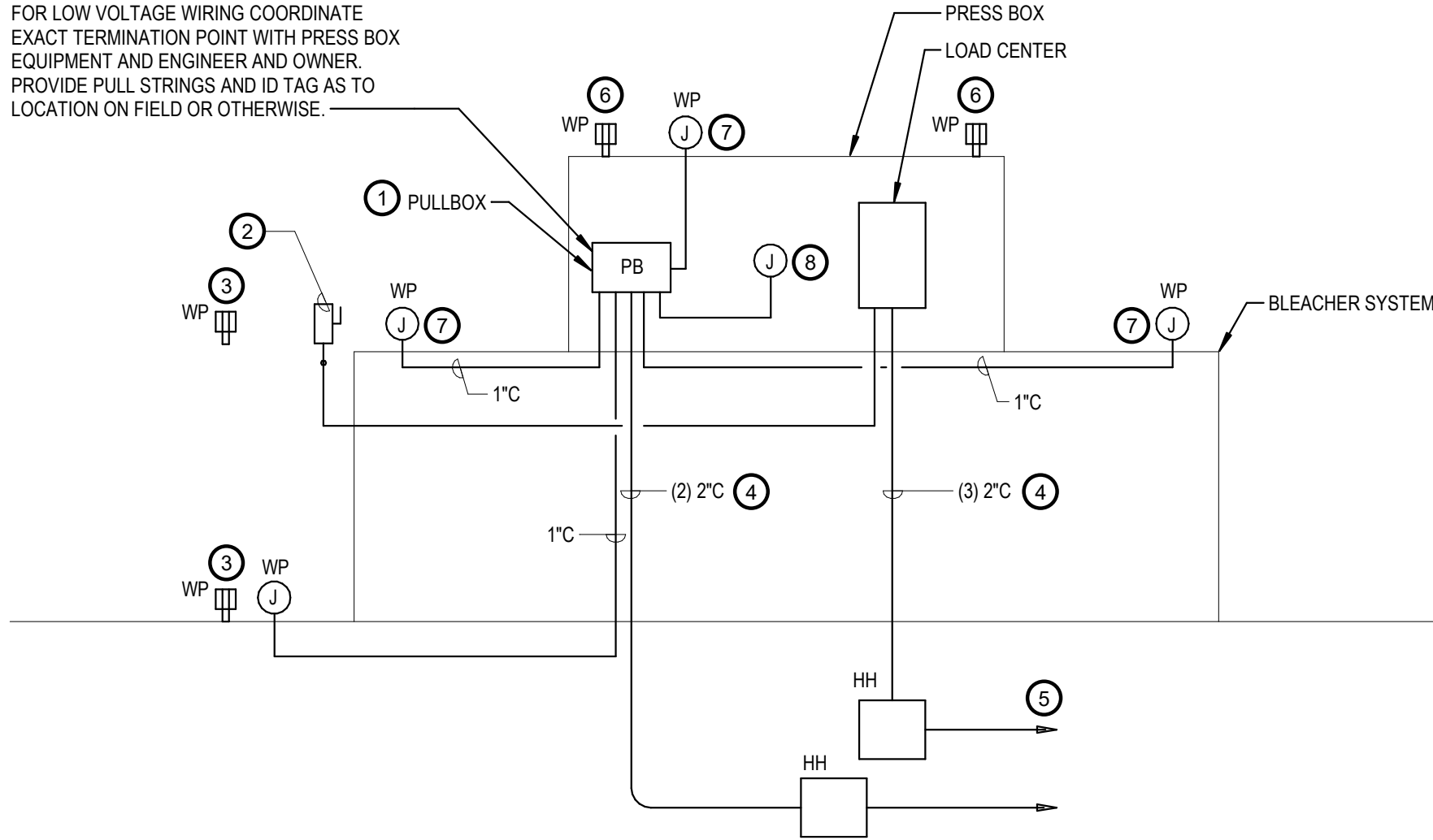


- NOTES:

- ① PROVIDE HANDHOLE TO INTERCEPT EXISTING SITE LIGHTING CIRCUIT ,  
EXTEND CIRCUIT TO LUMINAIRES AT NEW PARKING LOT.
- ② MINIMUM SIZE WIRE SHALL BE #8 AWG.
- ③ EXISTING PARKING LOT FIXTURE RELOCATED. CONFIRM EXISTING BOLT  
CIRCLE, PROVIDE NEW ANCHOR BOLTS IN NEW POLE BOXES.



FOR LOW VOLTAGE WIRING COORDINATE EXACT TERMINATION POINT WITH PRESS BOX EQUIPMENT AND ENGINEER AND OWNER. PROVIDE PULL STRINGS AND ID TAG AS TO LOCATION ON FIELD OR OTHERWISE.

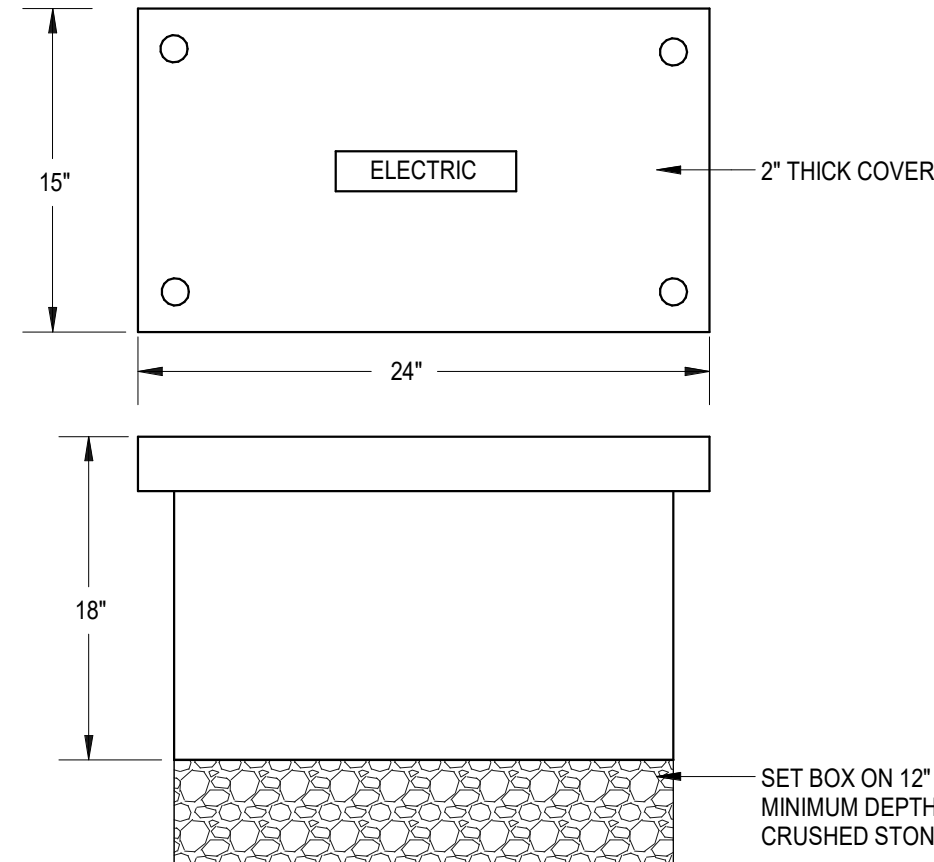


NOTES:

- PULL BOX FOR LOW VOLTAGE AND / OR SOUND SYSTEM WIRING.
- PROVIDE 20A-1P CIRCUIT FROM PRESS BOX LOAD CENTER FOR POWERED LIFT. PROVIDE COMPLETE INSTALLATION OF ALL POWER, CONNECTIONS, AND CONTROLS.
- RECEPTACLES MOUNTED ON/OR NEAR LIFT STRUCTURE, PROVIDE 20A-1P CIRCUIT FROM PRESS BOX LOAD CENTER.
- ALL CONDUITS ABOVE GRADE AT BLEACHERS SHALL BE GALVANIZED RIGID STEEL, CONTINUE BELOW GRADE TO RIGID STEEL ELBOW TO TRANSITION TO UNDERGROUND PVC. PROVIDE ALL MOUNTING HARDWARE TO ADEQUATELY SUPPORT RACEWAYS TO BLEACHER STRUCTURE.
- PRESS BOX 120V PANELBOARD FEED.
- MOUNTED ON FILMING PLATFORM ABOVE PRESSBOX ON RIGID STEEL CONDUITS PROVIDE DEDICATED CIRCUITS FROM PRESSBOX LOAD CENTER.
- 4" SQUARE WEATHERPROOF JUNCTION BOX FOR VIDEO PORTS AND LOW VOLTAGE WIRING, PROVIDE (2) 1" C TO PULLBOX IN PRESSBOX.
- 4" SQUARE OUTLET BOX FOR (2) ETHERNET AND (2) VIDEO PORTS. COORDINATE EXACT LOCATION PRIOR TO ROUGHING.

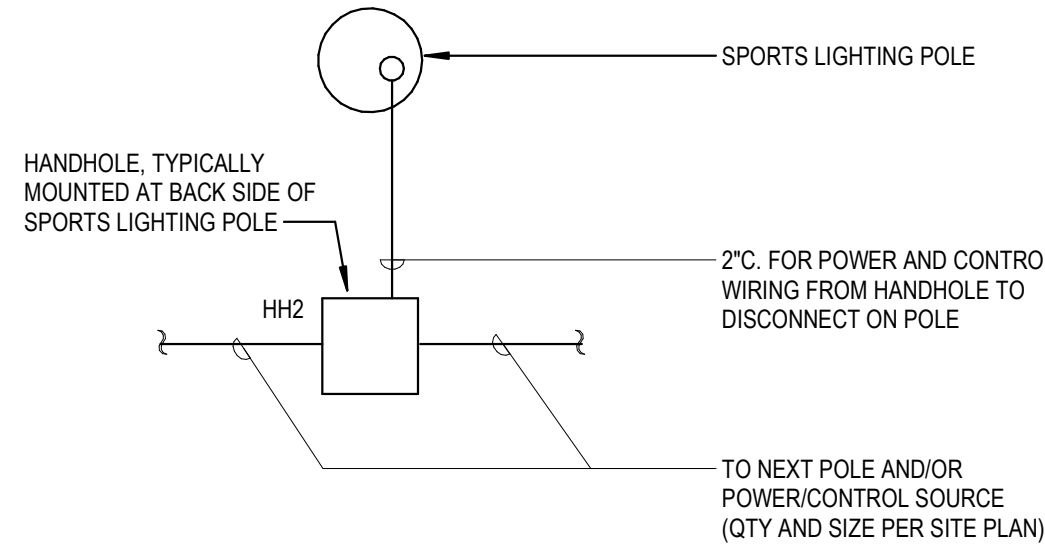
PRESS BOX SOUND SYSTEM AND EQUIPMENT INSTALLATION DETAIL

Scale: Not To Scale



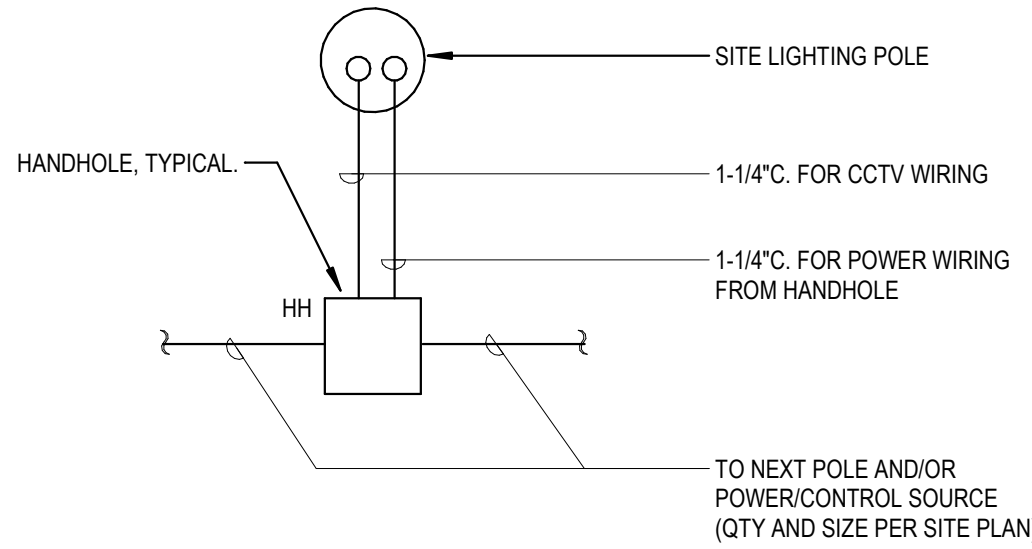
SITE LIGHTING HANDHOLE DETAIL

Scale: Not To Scale



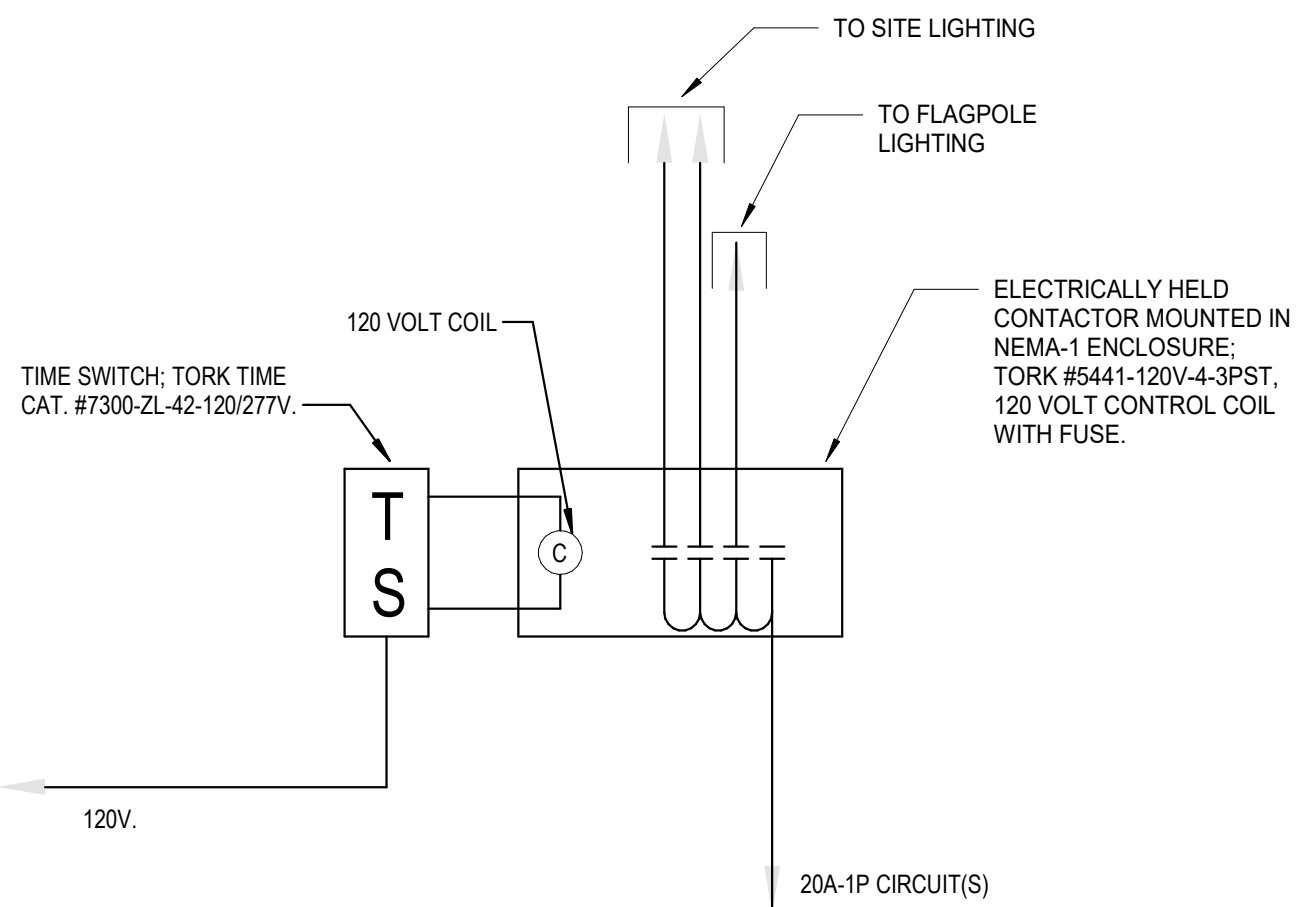
SPORTS LIGHTING CONDUITING/HANDHOLE DETAIL

Scale: Not To Scale



SITE LIGHTING CONDUITING/HANDHOLE DETAIL

Scale: Not To Scale



TIME SWITCH WIRING DIAGRAM

Scale: N.T.S.

DRY-TYPE TRANSFORMER SCHEDULE

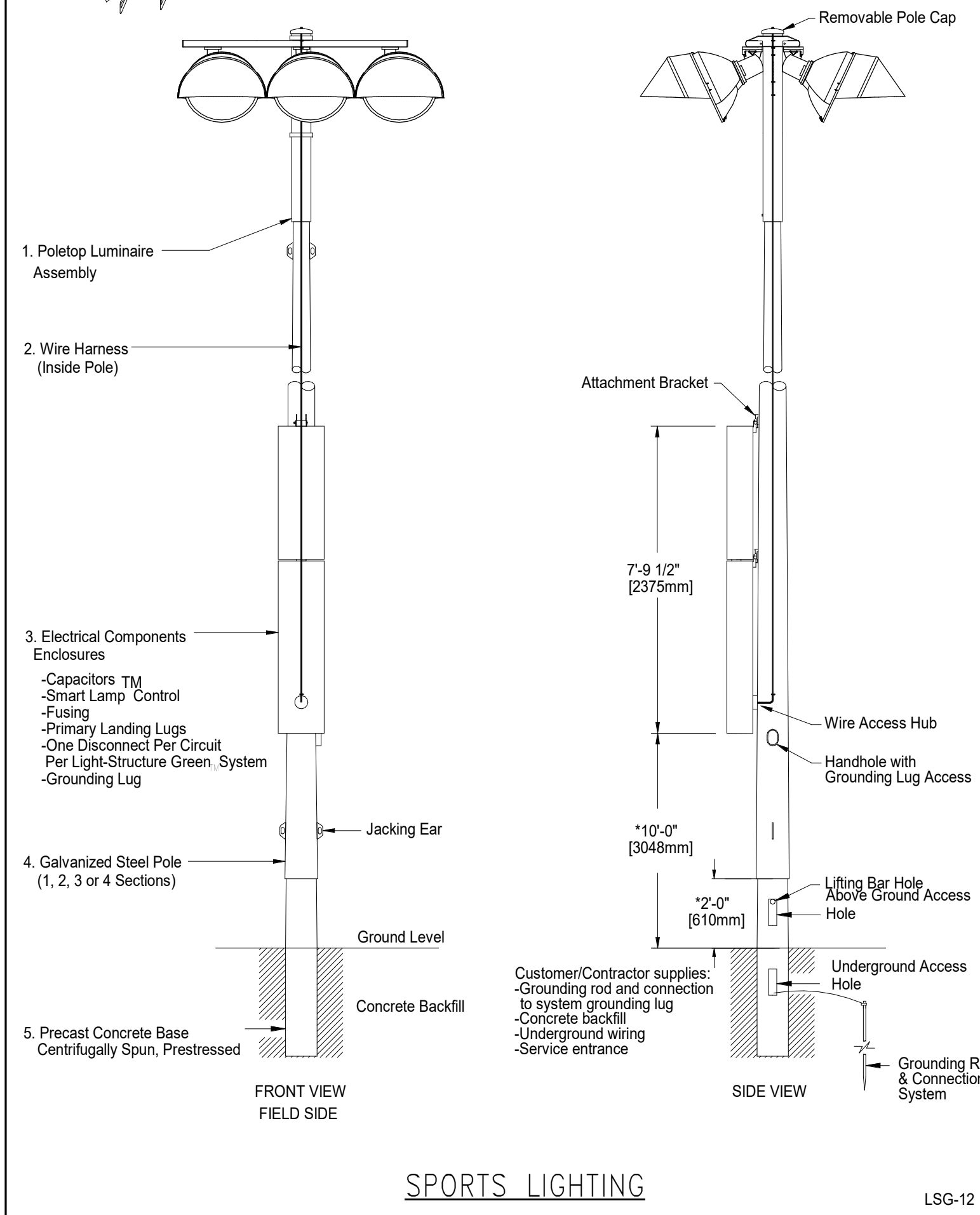
I.D.	NAMEPLATE KVA	480V, 3Ø, 3W, PRIMARY			120/208V, 3Ø, 4W, SECONDARY		
		PRIMARY AMPS	480V, OVERCURRENT	480V, FEEDER	SECONDARY AMPS	208V, OVERCURRENT	120/208V, FEEDER
T3	30	36	50A-3P	3#6, 1#10 GND., 1" C.	83	100A-3P	4#2, 1#8 GND., 1-1/2" C.

NOTES:

- CONDUCTOR SIZES ARE FOR COPPER CONDUCTORS AND ARE MINIMUM.

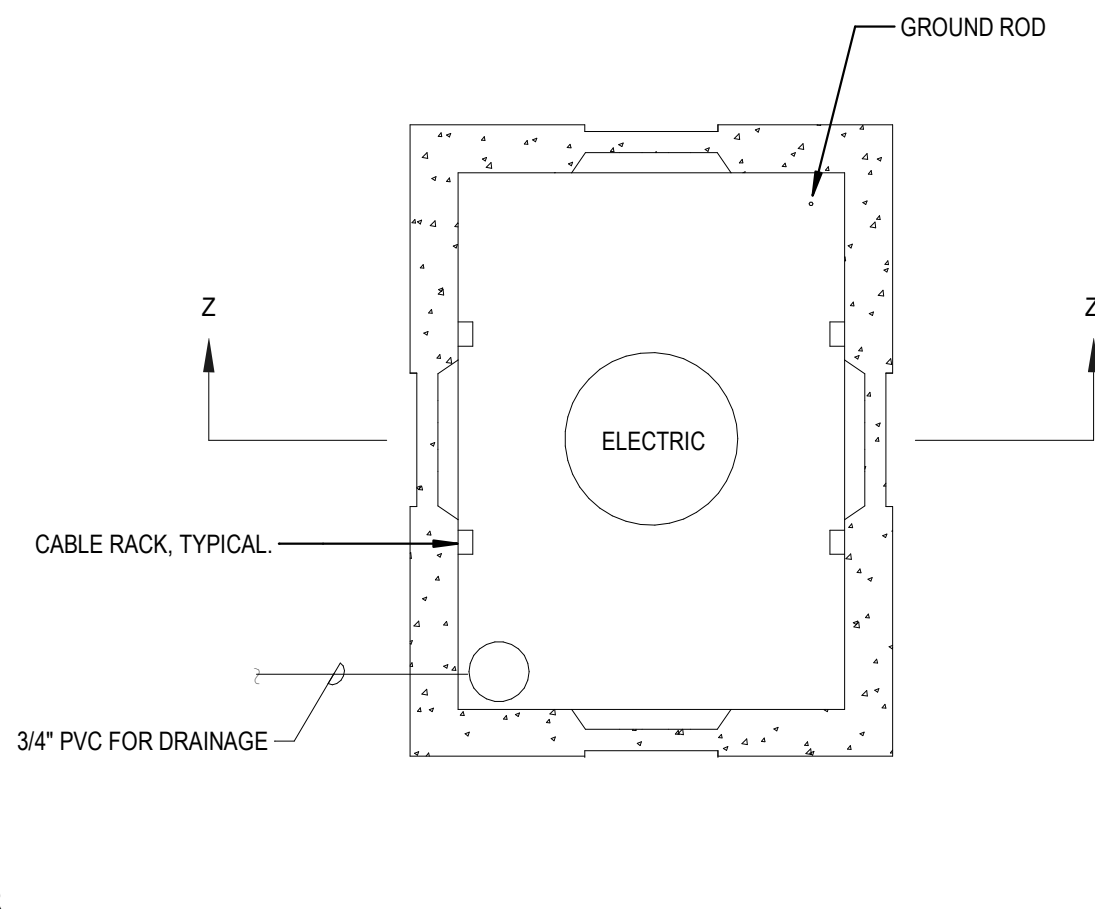
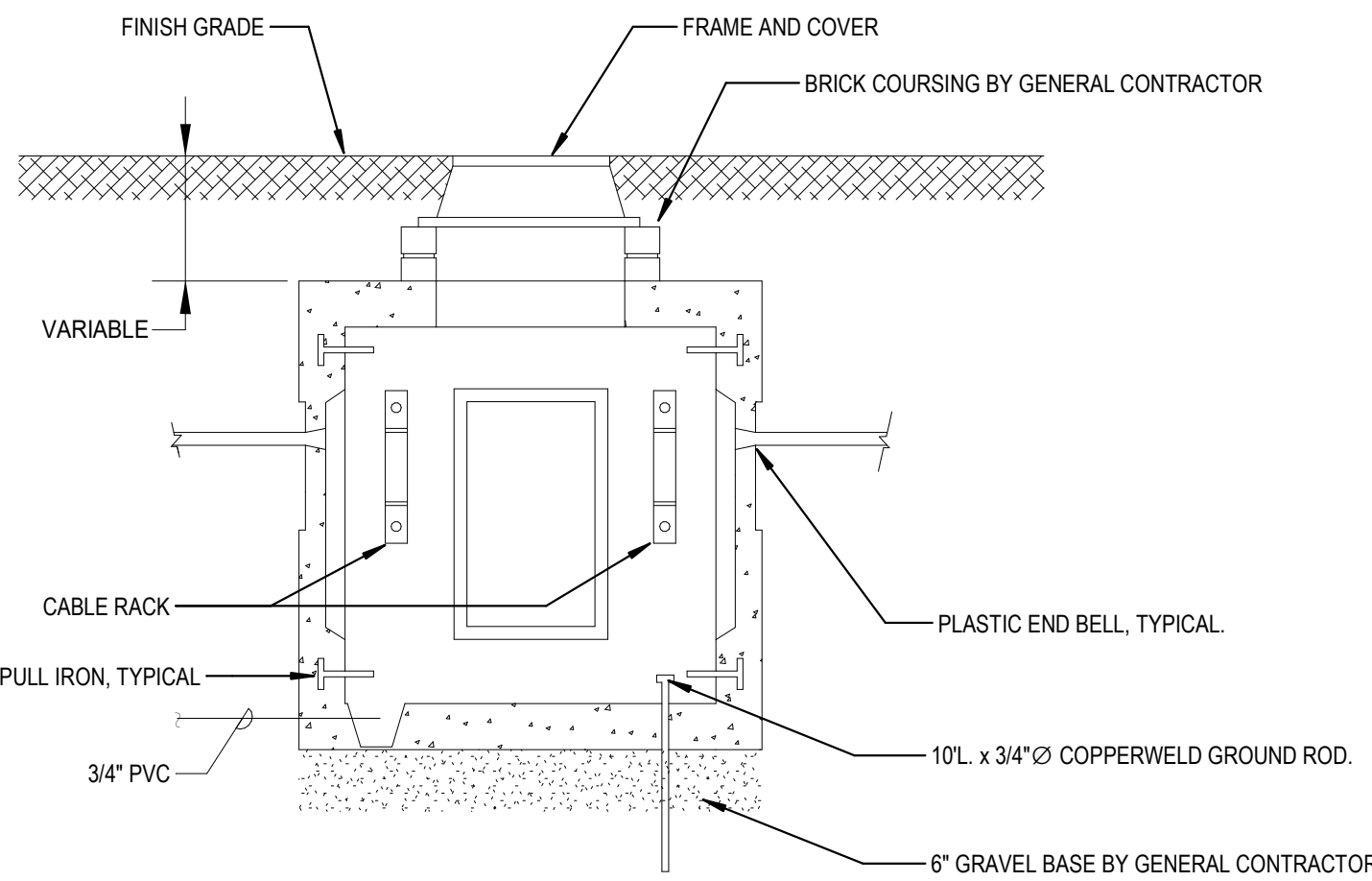


Typical Light-Structure Green System Detail



SPORTS LIGHTING

LSG-12



NOTES:

- MANHOLE INSIDE DIMENSIONS SHALL BE 6'W x 6'L x 6'-6"H.
- MANHOLE SHALL BE PRECAST CONCRETE.

MANHOLE DETAILS

Scale: Not To Scale



Gale Associates, Inc.  
Engineers and Planners

163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright©2020

BALA  
ENGINEERS

BALA PROJECT NUMBER: 6019880  
BALA PROJECT NAME: MILLBURY JR / SR HIGH SCHOOL ATHLETIC CAMPUS RENOVATIONS  
BALA PROJECT LOCATION: 12 MARTIN STREET, MILLBURY, MA 01527

BID SET

MILLBURY JR / SR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS

12 MARTIN STREET  
MILLBURY, MA

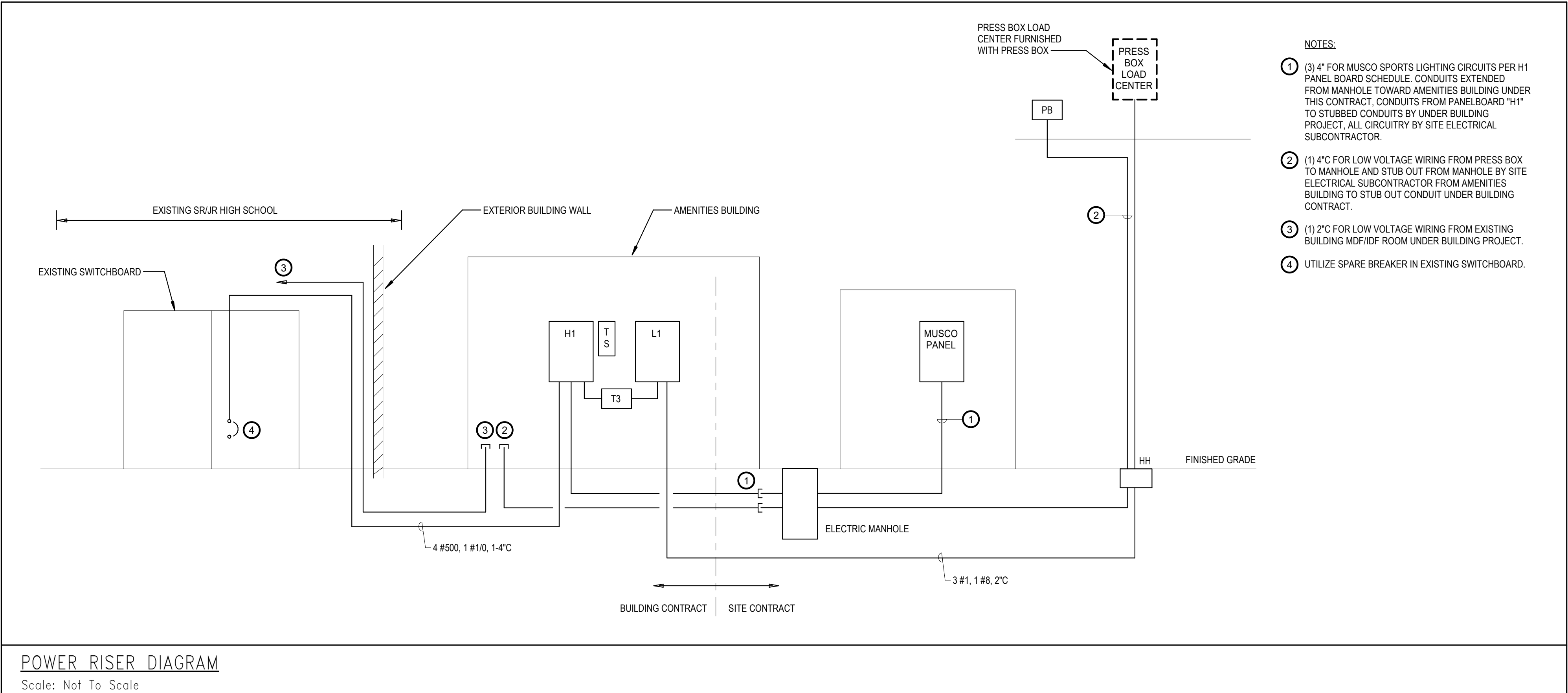
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

PROJECT NO.	6019880
DESIGNED BY	KJA
DRAWN BY	AKL
CHECKED BY	KJA
DATE	02/25/20
DRAWING SCALE	NONE

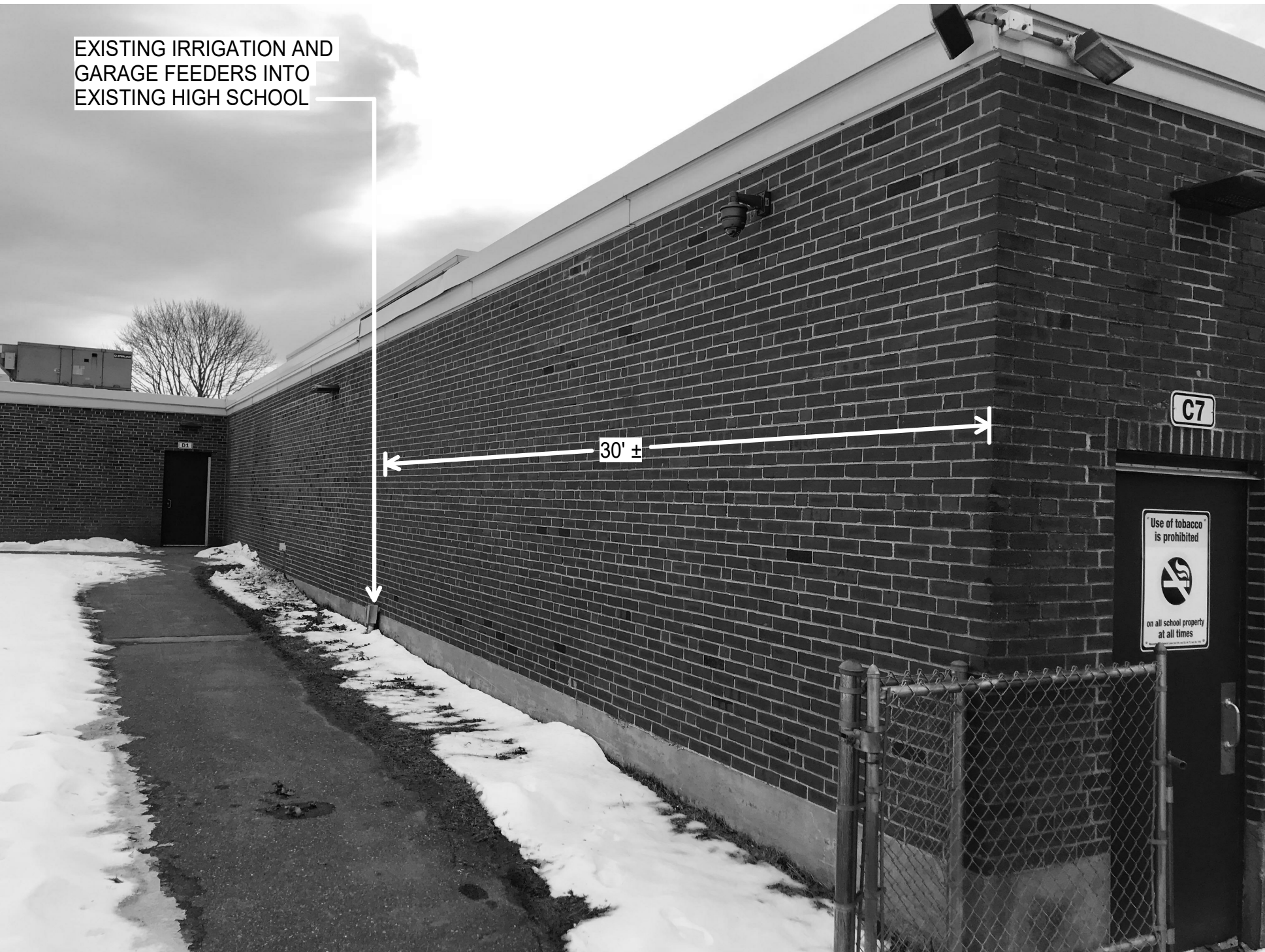
ELECTRICAL SPORTS  
LIGHTING DETAILS

E201





EXISTING IRRIGATION AND GARAGE LB AND WIREWAY WITHIN EXISTING HIGH SCHOOL



EXISTING IRRIGATION AND GARAGE FEEDER ENTRY @ EXISTING HIGH SCHOOL



Gale Associates, Inc .  
Engineers and Planners

163 LIBBEY PARKWAY | WEYMOUTH, MA  
02189P 781.335.6465 F 781.335.6467  
www.gainc.com

Boston Baltimore Orlando Hartford Bedford

This drawing and the design and construction features disclosed are  
proprietary to Gale Associates, Inc. and shall not be altered or reused in  
whole or part without the express written permission of Gale Associates,  
Inc. Copyright©2020



BID SET

MILLBURY JR / SR HIGH SCHOOL  
ATHLETIC CAMPUS RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA

MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

PROJECT NO.	6019880
DESIGNED BY	KJA
DRAWN BY	ERA
CHECKED BY	KJA
DATE	02/25/20
DRAWING SCALE	NONE

ELECTRICAL DETAILS

E202



# SWITCHING SCHEDULE

Field/Zone Description	Zones
FB/SO 1	1
Softball	2
Security	3

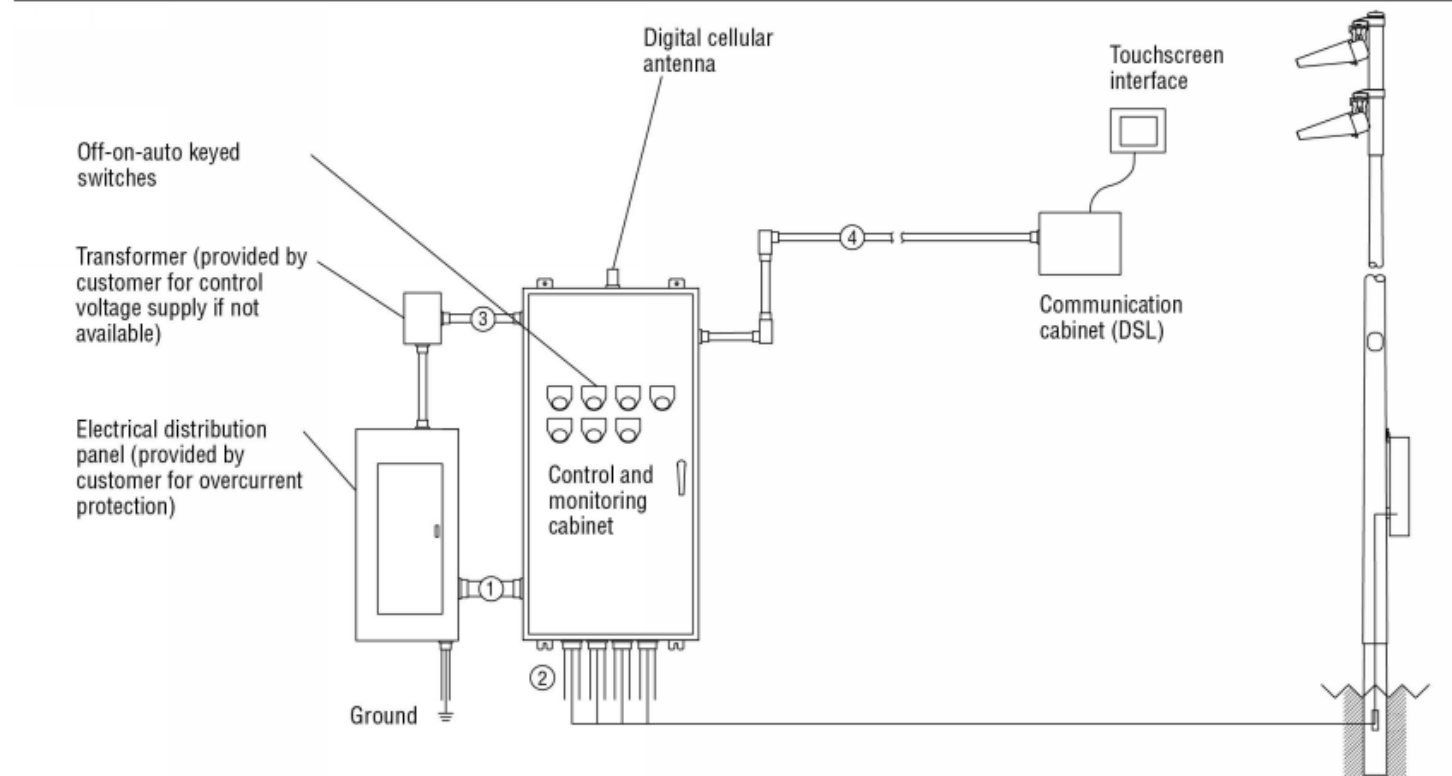
CONTROL POWER CONSUMPTION	
120V Single Phase	
VA loading of Musco Supplied Equipment	INRUSH: 3513.0 SEALED: 387.8

# CIRCUIT SUMMARY BY ZONE

POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
F1	FB/SO 1	8	8	15.3	30	C1	1
F2	FB/SO 1	8	8	15.3	30	C2	1
F3	FB/SO 1	8	8	15.3	30	C3	1
F4	FB/SO 1	8	8	15.3	30	C4	1
A1	Softball	0	0	0.0	30	C5	2
A2	Softball	0	0	0.0	30	C6	2
B1	Softball	0	0	0.0	30	C7	2
B2	Softball	0	0	0.0	30	C8	2
D1	Softball	0	0	0.0	30	C9	2
F4	Walkway	2	1	1.7	30	C10	3
A1	Walkway	0	0	0.0	30	C11	3
A2	Walkway	0	0	0.0	30	C12	3

Full Load Amps based on amps per driver.

# Control-Link. Control and Monitoring System



Conduit ID	Description	# of Wires	Wire (AWG)	Conduit (in)	Max. Wire Length (ft)	MUSCO Supplied	Notes
1	Line power to contactors, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
1	Power-line Communication Connection (dedicated, 20A)	*A	12	*C	N/A	No	A-E
2	Load power to lighting circuits, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
3	Control power (dedicated, 20A)	3	12	*C	N/A	No	C,E
4	Communication cable to touchscreen	*F	*F	*C	1500	No	C,E,F

# PANEL SUMMARY

CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID (BY OTHERS)	CIRCUIT BREAKER POSITION (BY OTHERS)
1	1	C1	Pole F1	15.33		
1	1	C2	Pole F2	15.33		
1	1	C3	Pole F3	15.33		
1	1	C4	Pole F4	15.33		
1	1	C5	Pole A1	0.00		
1	1	C6	Pole A2	0.00		
1	1	C7	Pole B1	0.00		
1	1	C8	Pole B2	0.00		
1	1	C9	Pole D1	0.00		
1	1	C10	Pole F4	1.73		
1	1	C11	Pole A1	0.00		
1	1	C12	Pole A2	0.00		

# ZONE SCHEDULE

ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	POLE ID	CONTACTOR ID
Zone 1	1	FB/SO 1	F1 F2 F3 F4	C1 C2 C3 C4
Zone 2	2	Softball	A1 A2 B1 B2 D1	C5 C6 C7 C8 C9
Zone 3	3	Walkway	A1 A2	C11 C12

# Panelboard: H1

Location:  
Supply From:  
Mounting:

Volts: 480/277 Wye  
Phases: 3  
Wires: 4

A.I.C. Rating: 35K  
Mains Type: 400 A  
Mains Rating: 400 A

CKT	Circuit Description	Type	Trip	Poles	A	B	C	Poles	Trip	Type	Circuit Description	CKT
1	MUSCO SPORTS LIGHT POLE F1	20 A		3	0 VA	0 VA					MUSCO SPORTS LIGHT POLE F2	2
3	4#6, 1#6G.					0 VA	0 VA				4#4, 1#4G.	4
5	CONTACTOR C1						0 VA	0 VA			CONTACTOR C2	6
7	MUSCO SPORTS LIGHT POLE F3	30 A		3	0 VA	0 VA					MUSCO SPORTS LIGHT POLE F4	8
9	4#6, 1#6G.					0 VA	0 VA				4#6, 1#6G.	10
11	CONTACTOR C3						0 VA	0 VA			CONTACTOR C4	12
13	MUSCO SPORTS LIGHT POLE A1	30 A		3	0 VA	0 VA					MUSCO SPORTS LIGHT POLE A2	14
15	4#6, 1#6G.					0 VA	0 VA				4#6, 1#6G.	16
17	CONTACTOR C5						0 VA	0 VA			CONTACTOR C6	18
19	MUSCO SPORTS LIGHT POLE B1	30 A		3	0 VA	0 VA					MUSCO SPORTS LIGHT POLE B2	20
21	4#6, 1#6G.					0 VA	0 VA				4#6, 1#6G.	22
23	CONTACTOR C7						0 VA	0 VA			CONTACTOR C8	24
25	MUSCO SPORTS LIGHT POLE D1	30 A		3	0 VA	0 VA					MUSCO POWER LINE COMMUNICATIONS	26
27	4#6, 1#6G.					0 VA	0 VA					28
29	CONTACTOR C9						0 VA	0 VA				30
31	MUSCO SPORTS LIGHT POLE F4	30 A		3	0 VA	0 VA					MUSCO SPORTS LIGHT POLE A1	32
33	4#6, 1#6G.					0 VA	0 VA				4#6, 1#6G.	34
35	WALKWAY LIGHTING CONTACTOR C10						0 VA	0 VA			CONTACTOR C11	36
37	MUSCO SPORTS LIGHT POLE A2	30 A		3	0 VA	0 VA					PANELBOARD L1	38
39	4#6, 1#6G.					0 VA	0 VA				45KVA TRANSFORMER	40
41	CONTACTOR C12						0 VA	0 VA				42
43						0 VA	0 VA					44
45	SPARE	30 A		3		0 VA	0 VA				SPARE	46
47						0 VA	0 VA					48
49						0 VA	0 VA					50
51	SPARE	30 A		3		0 VA	0 VA				SPARE	52
53						0 VA	0 VA					54
55						0 VA	0 VA					56
57	SPARE	30 A		3		0 VA	0 VA				SPARE	58
59							0 VA	0 VA				60
61	SITE LIGHTING	20 A		1	0 VA	0 VA				1	20 A	62
63	SITE LIGHTING	20 A		1		0 VA	0 VA			1	20 A	64
65	FLAGPOLE LIGHTING	20 A		1			0 VA	0 VA		1	20 A	66
67	SPARE	20 A		1	0 VA	0 VA				1	20 A	68
69	SPARE	20 A		1		0 VA	0 VA			1	20 A	70
71	SPARE	20 A		1			0 VA	0 VA		1	20 A	72
73	SPARE	20 A		1	0 VA	0 VA				1	20 A	74
75	SPARE	20 A		1		0 VA	0 VA			1	20 A	76
77	SPARE	20 A		1			0 VA	0 VA		1	20 A	78
79	SPARE	20 A		1	0 VA	0 VA				1	20 A	80
81	SPARE	20 A		1		0 VA	0 VA			1	20 A	82
83	SPARE	20 A		1			0 VA	0 VA		1	20 A	84

# Legend:

AF	Arc Fault	ST	Shunt Trip
GF	Ground Fault	Blank	Standard

# Notes:

# Panel Totals

Total Connected: 0 A

# NOTES:

- ① CIRCUIT VIA PHOTOCELL. ② ASSOCIATED WITH SOFTBALL FIELD ALTERNATE.

# Panelboard: L1

Location:  
Supply From:  
Mounting:

Volts: 120/208 Wye  
Phases: 3  
Wires: 4

A.I.C. Rating: 22K  
Mains Type: 150  
Mains Rating: 150 A

CKT	Circuit Description	Type	Trip	Poles	A	B	C	Poles	Trip	Type	Circuit Description	CKT
1	RECEPTACLE TURF BOX	20 A		1	0 VA	0 VA				1	20 A	2
3	RECEPTACLE TURF BOX	20 A		1		0 VA	0 VA			1	20 A	4
5	BATTING CAGE	20 A		1			0 VA	0 VA		1	20 A	6
7	DUGOUT RECEPTACLE	20 A		1	0 VA	0 VA				1	20 A	8
9	EXISTING PARKING LOT LIGHTING	20 A		1		0 VA	0 VA			1	20 A	10
11	SPARE	20 A		1			0 VA	0 VA		1	20 A	12
13	SPARE	20 A		1	0 VA	0 VA				1	20 A	14
15	SPARE	20 A		1		0 VA	0 VA			1	20 A	16
17							0 VA	0 VA		1	20 A	18
19	PRESS BOX LOAD CENTER	100 A		2	0 VA	0 VA				1	20 A	20
21	SPARE	20 A		1		0 VA	0 VA			1	20 A	22
23	SPARE	20 A		1			0 VA	0 VA		1	20 A	24
25	SPARE	20 A		1	0 VA	0 VA				1	20 A	26
27	SPARE	20 A		1		0 VA	0 VA			1	20 A	28
29	SPACE AND HARDWARE	--	--	--			0 VA	0 VA	--	--	SPACE AND HARDWARE	30
31	SPACE AND HARDWARE	--	--	--	0 VA	0 VA			--	--	SPACE AND HARDWARE	32
33	SPACE AND HARDWARE	--	--	--		0 VA	0 VA		--	--	SPACE AND HARDWARE	34
35	SPACE AND HARDWARE	--	--	--			0 VA	0 VA	--	--	SPACE AND HARDWARE	36
37	SPACE AND HARDWARE	--	--	--	0 VA	0 VA			--	--	SPACE AND HARDWARE	38
39	SPACE AND HARDWARE	--	--	--		0 VA	0 VA		--	--	SPACE AND HARDWARE	40
41	SPACE AND HARDWARE	--	--	--			0 VA	0 VA	--	--	SPACE AND HARDWARE	42

# Legend:

AF	Arc Fault	ST	Shunt Trip
GF	Ground Fault	Blank	Standard

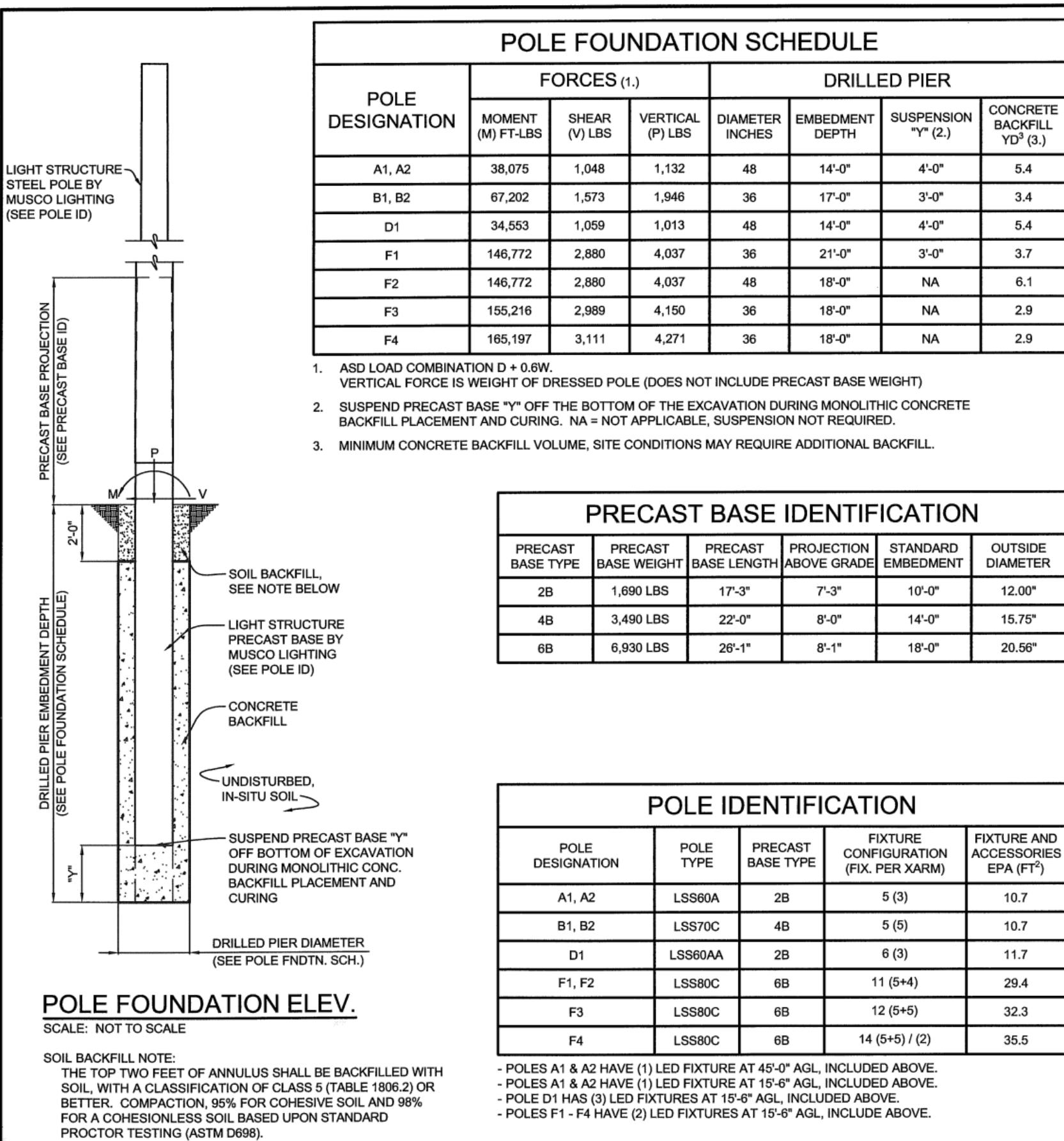
# Notes:

# Panel Totals

Total Connected: 0 A

# NOTE:

SCHEDULES ARE INCLUDED FOR REFERENCE, PANELBOARDS TO BE INSTALLED UNDER SEPARATE CONTRACT, WIRING FOR ALL SPORTS LIGHTING, SITE LIGHTING, FLAGPOLE LIGHTING, SCOREBOARD POWER, DUGOUT AND BATTING CAGE POWER, AND TURF BOXES SHALL BE INCLUDED IN SITE CONTRACT. PANELBOARD LOCATED IN AMENITIES BUILDING.



# POLE FOUNDATION SCHEDULE

POLE DESIGNATION	FORCES (1)			DRILLED PIER		
	MOMENT (M) FT-LBS	SHEAR (V) LBS	VERTICAL (P) LBS	DIAMETER INCHES	EMBEDMENT DEPTH	SUSPENSION **Y (2)
A1, A2	38,075	1,048	1,132	48	14'-0"	4'-0"
B1, B2	67,202	1,573	1,946	36	17'-0"	3'-0"
D1	34,553	1,059	1,013	48	14'-0"	4'-0"
F1	146,772	2,880	4,037	36	21'-0"	3'-0"
F2	146,772	2,880	4,037	48	18'-0"	NA
F3	155,216	2,989	4,150	36	18'-0"	NA
F4	165,197	3,111	4,271	36	18'-0"	NA

- ASD LOAD COMBINATION D + 0.6W. VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT)
- SUSPEND PRECAST BASE \*\*Y" OFF THE BOTTOM OF THE EXCAVATION DURING MONOLITHIC CONCRETE BACKFILL PLACEMENT AND CURING. NA = NOT APPLICABLE. SUSPENSION NOT REQUIRED.
- MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.

# PRECAST BASE IDENTIFICATION

PRECAST BASE TYPE	PRECAST BASE WEIGHT	PRECAST BASE LENGTH	PROJECTION ABOVE GRADE	STANDARD EMBEDMENT	OUTSIDE DIAMETER
2B	1,690 LBS	17'-3"	7'-3"	10'-0"	12.00"
4B	3,490 LBS	22'-0"	8'-0"	14'-0"	15.75"
6B	5,630 LBS	26'-1"	8'-1"	18'-0"	20.56"

# POLE IDENTIFICATION

POLE DESIGNATION	POLE TYPE	PRECAST BASE TYPE	FIXTURE CONFIGURATION (FIX. PER XARM)	FIXTURE AND ACCESSORIES EPA (FT²)
A1, A2	LS960A	2B	5 (3)	10.7
B1, B2	LS970C	4B	5 (5)	10.7
D1	LS960AA	2B	6 (3)	11.7
F1, F2	LS980C	6B	11 (5+5)	29.4
F3	LS980C	6B	12 (5+5)	32.3
F4	LS980C	6B	14 (5+5) (2)	35.6

- POLES A1 & A2 HAVE (1) LED FIXTURE AT 45'-0" AGL, INCLUDED ABOVE.
- POLES B1 & B2 HAVE (1) LED FIXTURE AT 15'-0" AGL, INCLUDED ABOVE.
- POLE D1 HAS (3) LED FIXTURES AT 15'-0" AGL, INCLUDED ABOVE.
- POLES F1 - F4 HAVE (2) LED FIXTURES AT 15'-0" AGL, INCLUDED ABOVE.

# DESIGN NOTES

DESIGN PARAMETERS:  
WIND:  $V_w = 125$  MPH;  $V_{10} = 97$  MPH (EXPOSURE C, RISK CATEGORY II) PER MASSACHUSETTS STATE BUILDING CODE - 780 CMR, 9TH EDITION (IBC 2015 / ASCE 7-10).

GEOTECHNICAL PARAMETERS:  
ALLOWABLE END BEARING SOIL PRESSURE: 2,500 PSF  
ALLOWABLE LATERAL SOIL BEARING PRESSURE: 0 PSF/FT (GRADE TO 2'-0"). VARIES. SEE SOIL REPORT (BELOW 2'-0")  
IN ACCORDANCE WITH MASSACHUSETTS STATE BUILDING CODE - 780 CMR, 9TH EDITION, CHAPTER 18.

DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE SOILS AND FOUNDATION REPORT, NO. 95760.00, PREPARED BY NOBIS GROUP, CONCORD, NH.

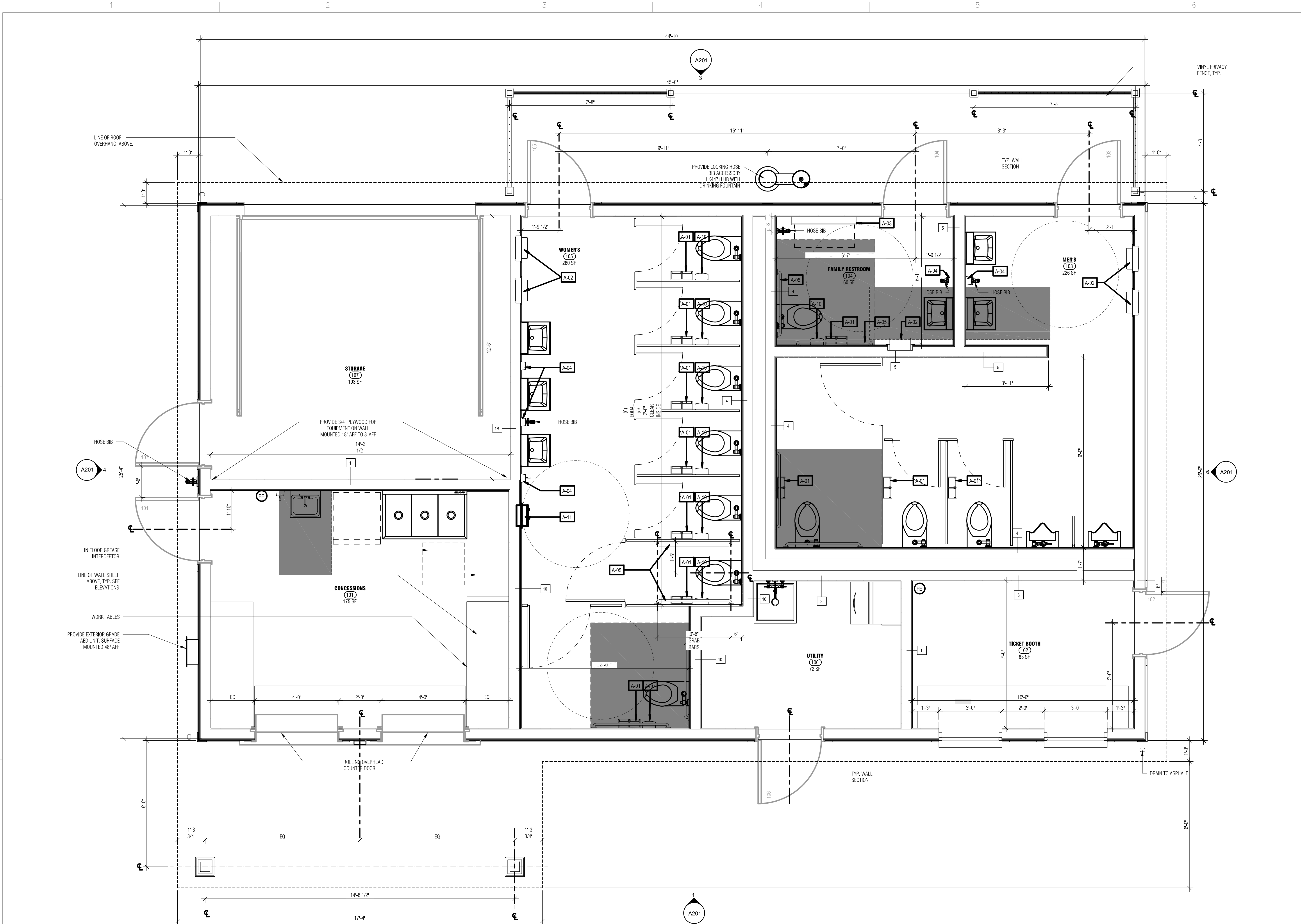
A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST



F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_A101.dwg, 3/9/2020 10:25:10 AM, dfr, Adobe PDF



**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA 02189  
P 781.335.6465 F 781.335.6467  
www.gainc.com  
Boston Baltimore Orlando Connecticut

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright ©2017



S3 Design, Inc.  
S3 Design Architecture, Inc.  
150 Wood Road, Suite 1000  
Braintree, Massachusetts 02184  
781.848.8804  
www.s3design-inc.com

PROJECT  
MILLBURY JR./SR HIGH SCHOOL  
TRACK & FIELD RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA  
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

REVISIONS		
NO.	DATE	DESCRIPTION

CADD FILE	
DESIGNED BY	SC
DRAWN BY	SG
CHECKED BY	SC
DATE	06 MAY 2019
DRAWING SCALE	1/2" = 1'-0"

GRAPHIC SCALE

SHEET TITLE

FLOOR PLAN

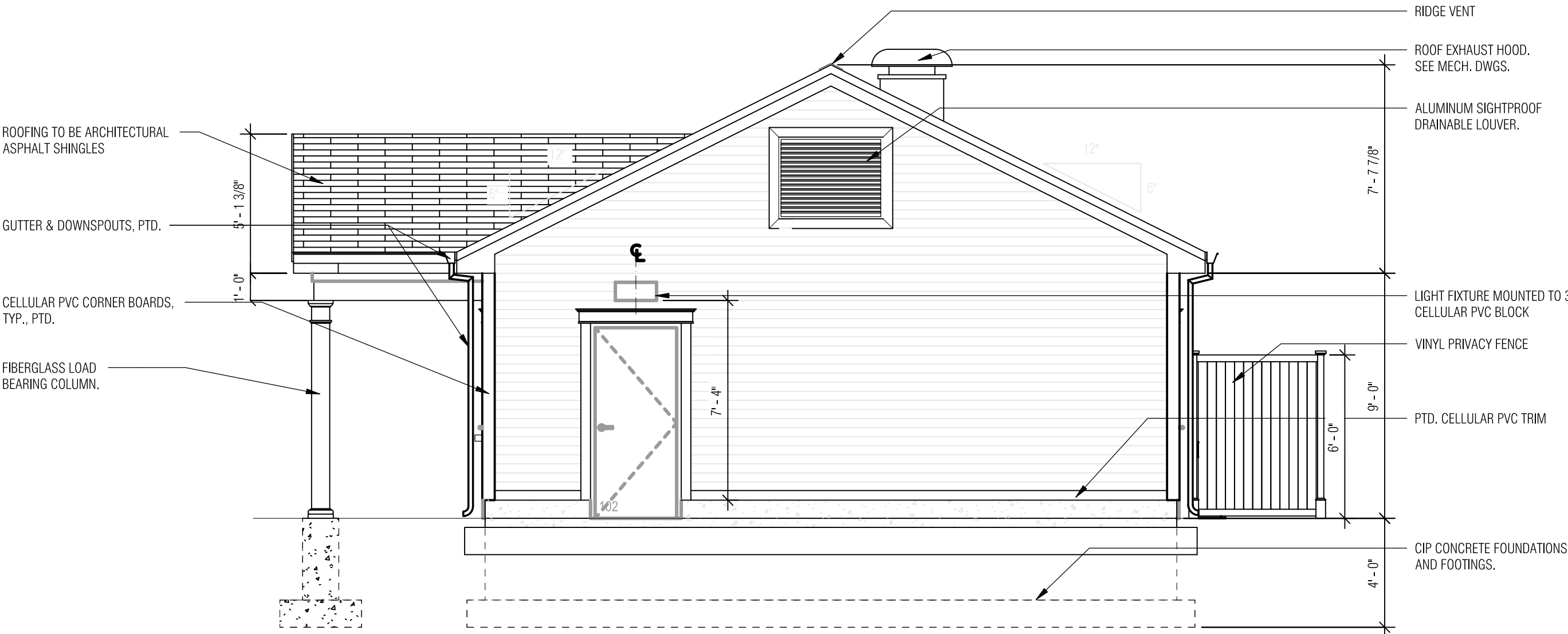
DRAWING NO.

A101

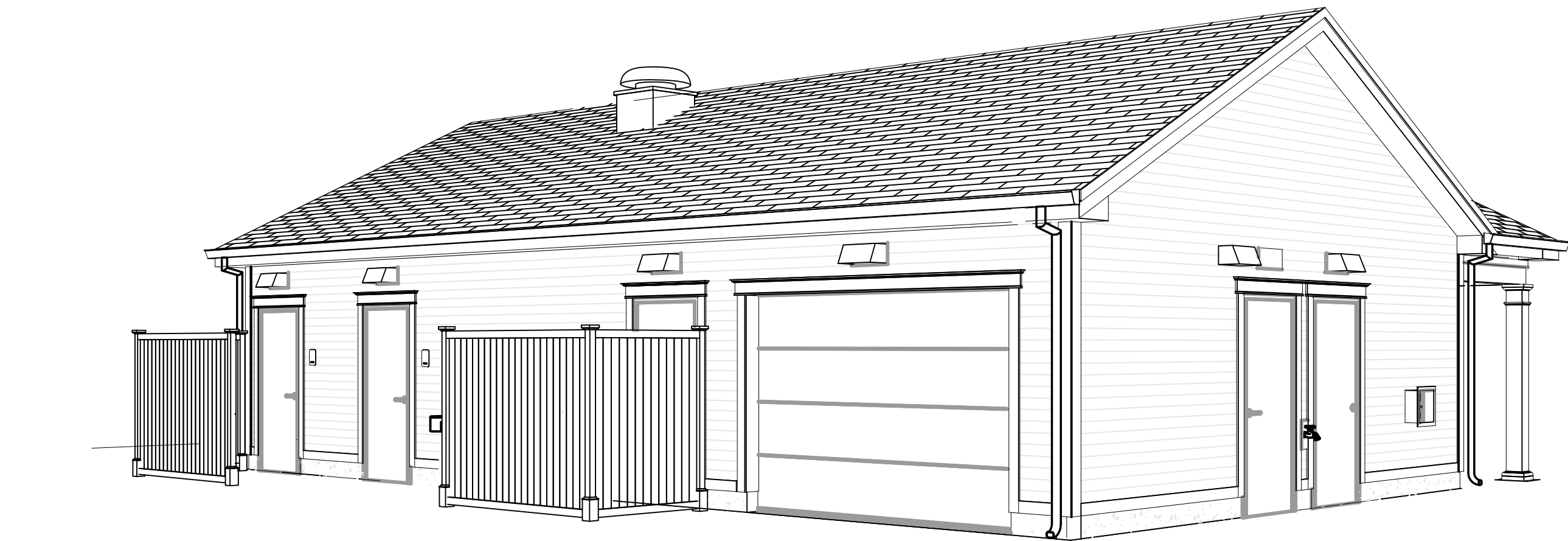
PROJECT NO.



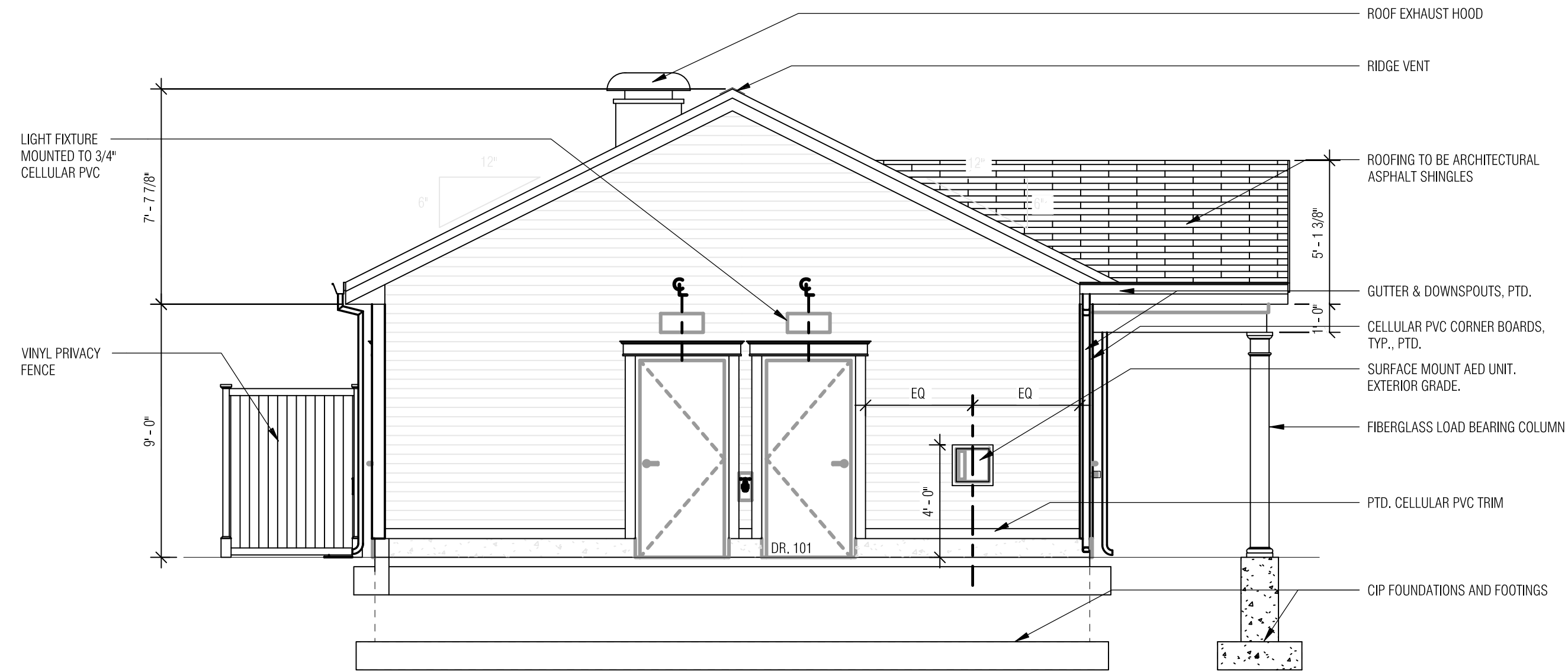
F:\716383\plots\07-Permit Drawings\03-Resubmission\716383\_A201.dwg, 3/9/2020 10:55:32 AM, dfr, Adobe PDF



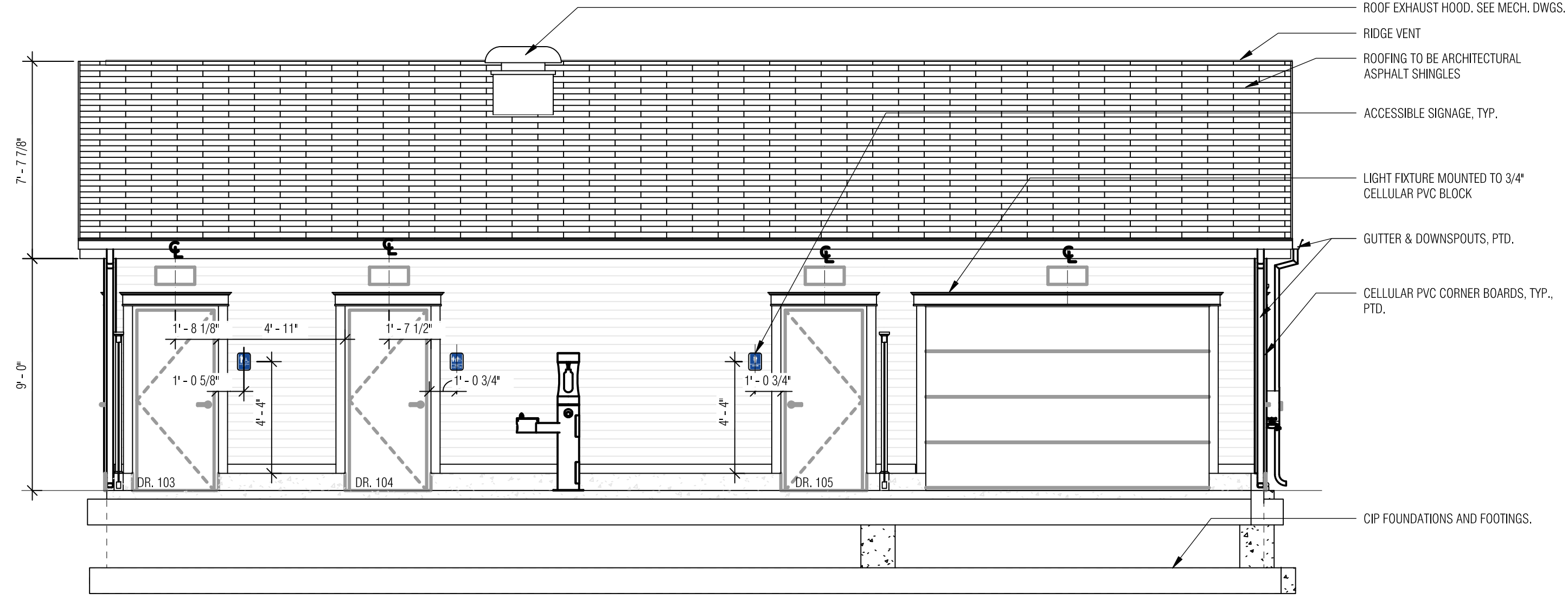
6 EAST ELEVATION  
SCALE: 1/4" = 1'-0"



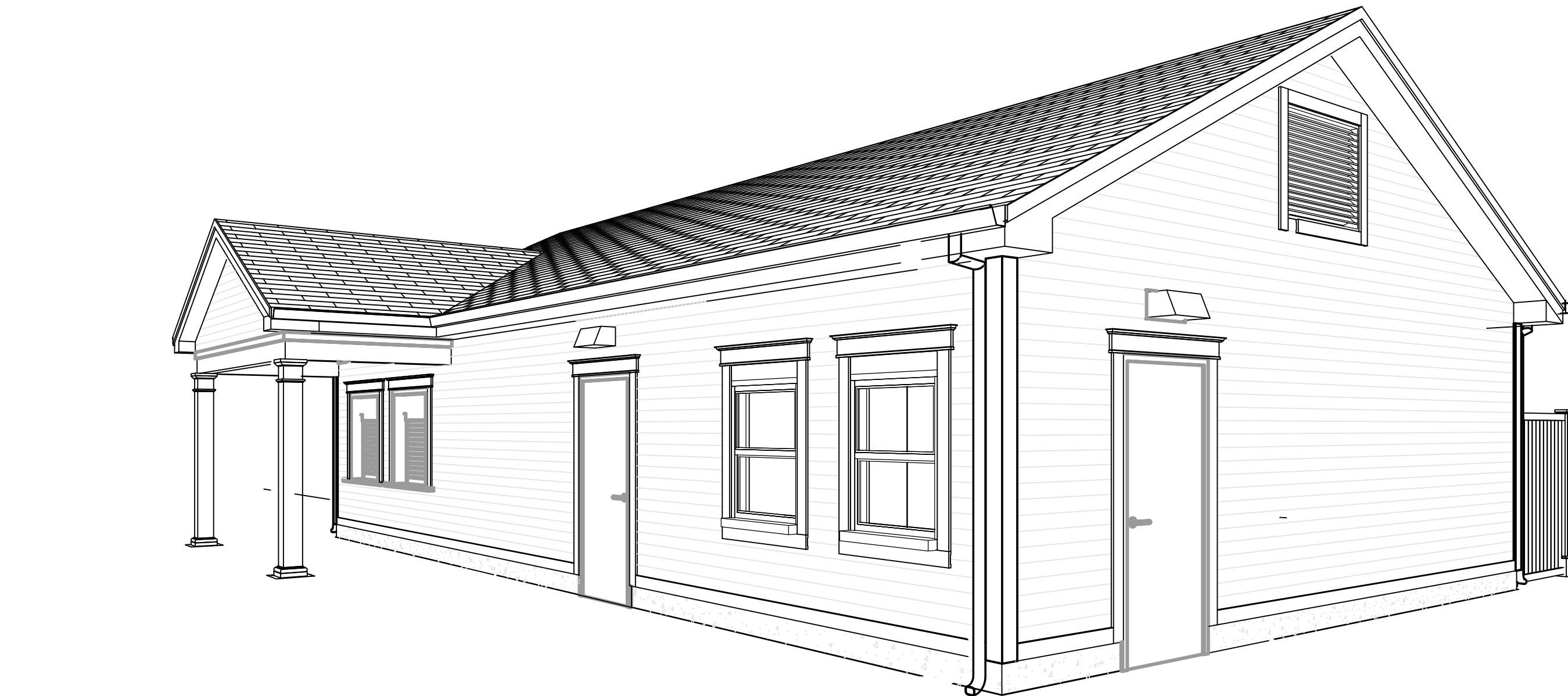
5 EXTERIOR VIEW - NORTH WEST  
SCALE:



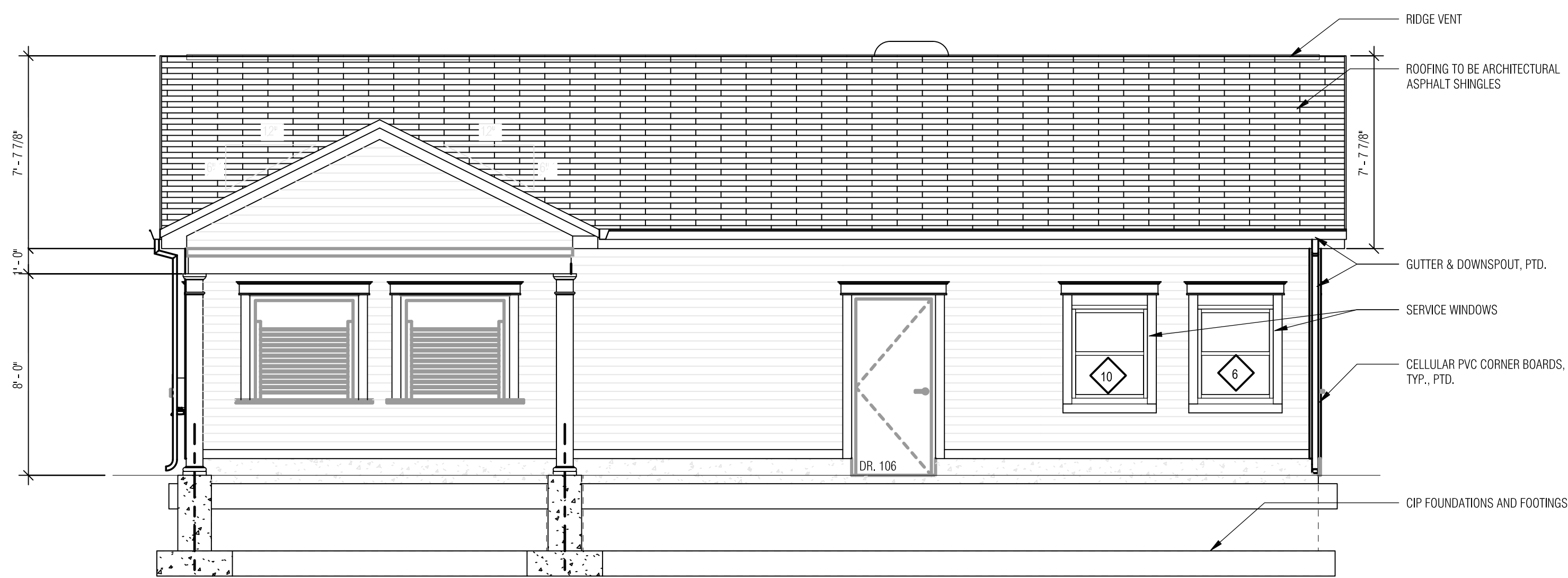
4 WEST ELEVATION  
SCALE: 1/4" = 1'-0"



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



2 EXTERIOR VIEW - SOUTH EAST  
SCALE:



1 SOUTH ELEVATION  
SCALE: 1/4" = 1'-0"



**Gale Associates, Inc.**  
Engineers and Planners  
163 LIBBEY PARKWAY | WEYMOUTH, MA 02189  
P 781.335.6465 F 781.335.6467  
www.gainc.com  
Boston Baltimore Orlando Connecticut

This drawing and the design and construction features disclosed are proprietary to Gale Associates, Inc. and shall not be altered or reused in whole or part without the express written permission of Gale Associates, Inc. Copyright ©2017

**S3** Design, Inc.  
S3 Design Architecture, Inc.  
150 Wood Road, Suite 1000  
Braintree, Massachusetts 02184  
781.848.8804  
www.s3design-inc.com

PROJECT  
MILLBURY JR. / SR HIGH SCHOOL  
TRACK & FIELD RENOVATIONS  
12 MARTIN STREET  
MILLBURY, MA  
OWNER  
MILLBURY PUBLIC SCHOOLS  
12 MARTIN STREET  
MILLBURY, MA 01527

REVISIONS		
NO.	DATE	DESCRIPTION

CADD FILE	
DESIGNED BY	SC
DRAWN BY	SG
CHECKED BY	SC
DATE	06 MAY 2019
DRAWING SCALE	1/4" = 1'-0"

GRAPHIC SCALE

SHEET TITLE

ELEVATIONS & ENLARGED ELEVATION

DRAWING NO.	A201
PROJECT NO.	