

MICHIGAN STATE UNIVERSITY

IM WEST - DEMOLITION

Eng.
Engineering & Surveying
www.engdot.com

4063 Grand Oak Drive Suite A109
Lansing, MI 48911
517.887.1100

16930 Robbins Road Suite 105
Grand Haven, MI 49417
616.743.7070

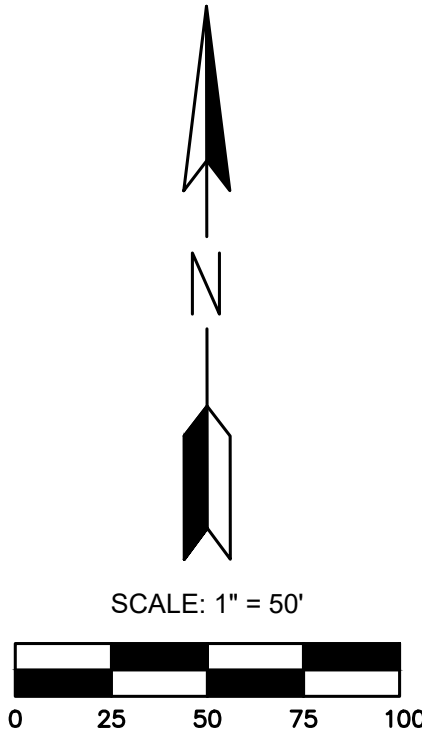
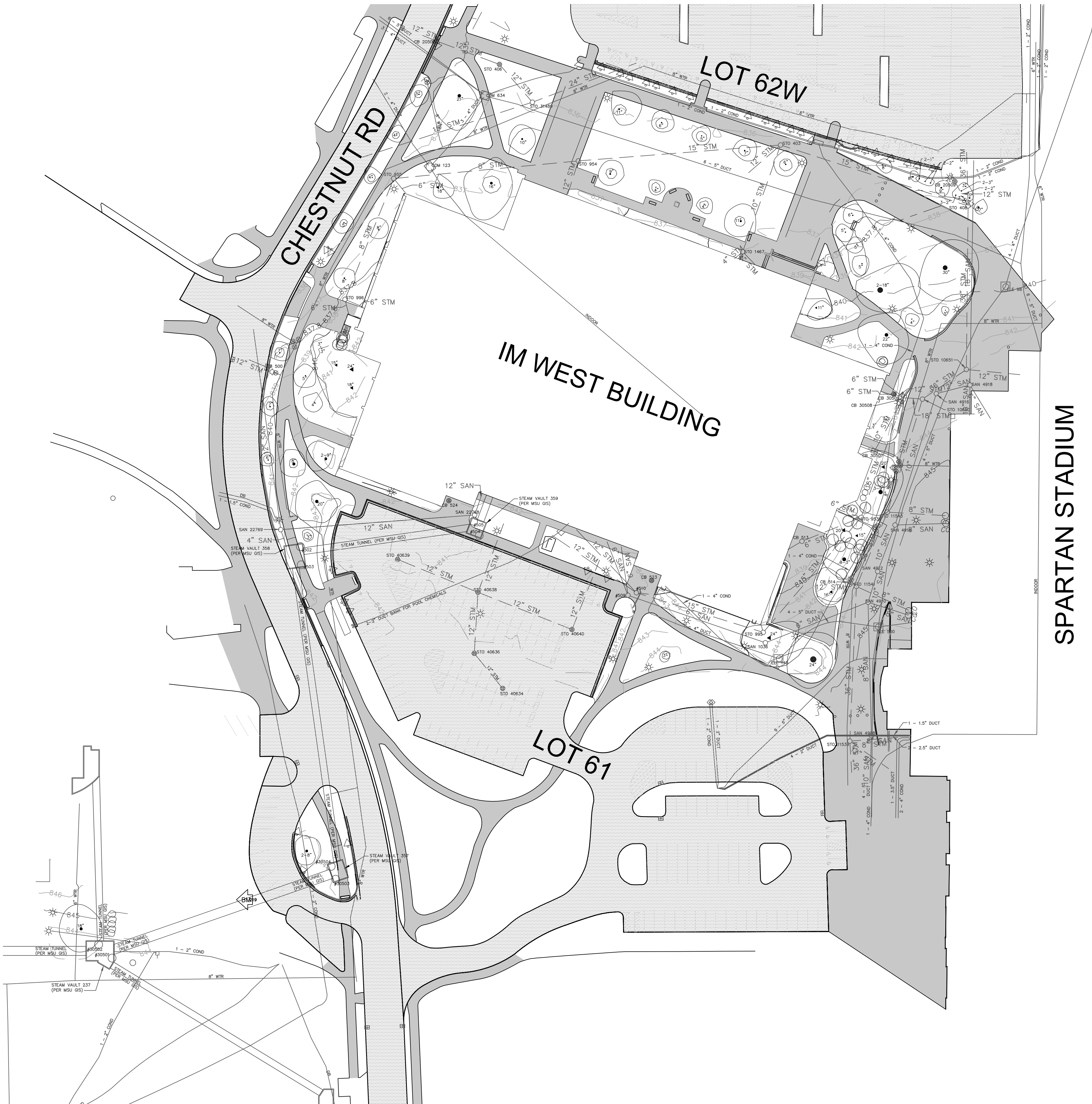
2311 East Bellline Avenue, Suite 201
Grand Rapids, MI 49546
616.743.3020

Infrastructure
Planning and Facilities

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UNIVERSITY

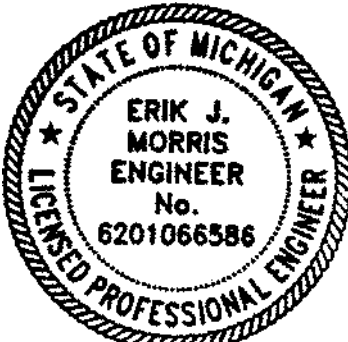
IM WEST - DEMOLITION

CP26003



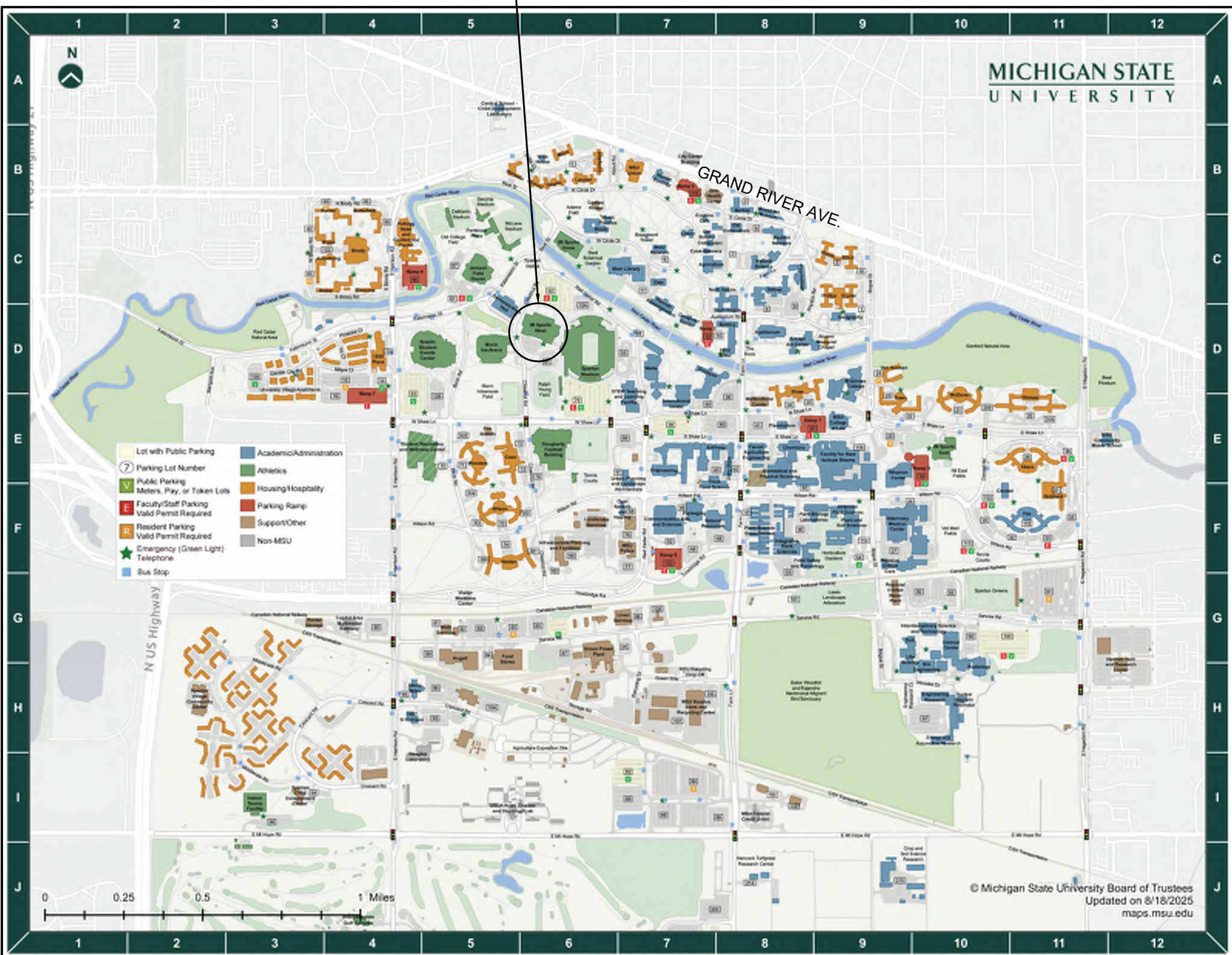
SHEET LIST

- C100 COVER
- C101 EXISTING CONDITIONS
- C102 SESC PLAN
- C103 SESC DETAILS
- C104 SITE SURFACE DEMOLITION PLAN
- C105 UTILITY DEMOLITION PLAN
- C106 STEAM DEMOLITION PLAN
- C107 STEAM DEMOLITION PLAN 2
- C201 UTILITY AND SITE LAYOUT
- C301 GRADING PLAN
- C401 FLOOR PLANS
- C501 DETAILS
- C502 PEDESTRAIN DETOUR AND ADD ALTERNATES



Erik J. Morris
10/13/26

SITE LOCATION



CAPITAL PROJ. NO.
CP26003

PR. MGR.	T. PACIFIC
ARCH.	NA
MECH.	NA
ELEC.	K. BEACH
CIVIL	T. OSMAN
L.A.	K. BURKS
INT. DES.	NA
CONST. REP.	T. PACIFIC
APPR.	K. MCFARLANE
DATE	10/7/26
SCALE	AS SHOWN
REVISIONS	
CD DELIVERABLE	

COVER

C100

1 OF 13

EXISTING STRUCTURES					
STRUCTURE	MSU	RIM ELEV.	INVERT	ELEVATION	NOTES
CB 500	31456	837.12	12" W	832.05	4' DIA STO
CB 501	22769	841.56	12" N	831.50	4' DIA SAN
			12" SE	831.08	
			4" S	834.93	
MH 502	358	842.44	NA	NA	STEAM VAULT
MH 503	358	842.35	NA	NA	STEAM VAULT
MH 504	359	841.70	NA	NA	STEAM VAULT
MH 505	359	841.85	NA	NA	STEAM VAULT
MH 506	22768	841.86	12" SW	834.29	4' DIA SAN
			4" SW	835.88	
			12" N	834.3500	
MH 507	40638	839.69	12" W	835.31	4' DIA STO
			12" E	835.28	
			12" S	835.36	
			12" N	835.35	
MH 508	40640	839.96	12" N	835.64	4' DIA STO
			12" W	835.73	
MH 509	998	841.81	6" NW	838.52	4' DIA SAN
			6" E	838.42	
			6" W	838.46	
MH 510	997	841.89	8" N	837.02	4' DIA SAN
			6" E	837.11	BULKHEADED
			15" E	835.27	
			12" W	835.36	
MH 511	40639	840.46	12" E	835.92	4' DIA STO
MH 512	140	843.60	NA	NA	8' DIA ELEC MH
CB 513		837.83	4" SW	835.25	4' DIA STO
			??" E	834.08	COVERED BY RESTRICTOR
CB 514		843.49	12" SE	839.34	4' DIA STO
MH 515	11541	843.85	12" NW	839.02	6' DIA STO
			8" E	834.64	
			36" N	830.84	
			36" S	830.83	
MH 516	4910	844.62	10" N	830.35	4' DIA SAN
			8" S	830.46	
			8" E	837.69	
			6" W	835.33	
MH 517		845.26	NA	NA	8' DIA ELEC
MH 518	4912	844.54	10" N	830.26	4' DIA SAN
			10" S	830.28	
MH 519	953	844.80	10" N	829.87	4' DIA SAN
			10" S	830.06	
			8" NE	837.41	
MH 520	11543	844.54	36" N	830.51	6' DIA STO
			36" S	830.46	
			8" E	836.14	
MH 521	4908	845.80	8" E	838.23	4' DIA SAN
			10" S	831.35	
			10" N	830.91	
MH 522	11539	845.33	36" S	831.38	6' DIA STO
			36" N	831.55	
			8" E	836.36	
			12" SE	836.49	
CO 523		841.80	NA	NA	4" CLEANOUT?
CO 524		841.75	NA	NA	4" CLEANOUT?

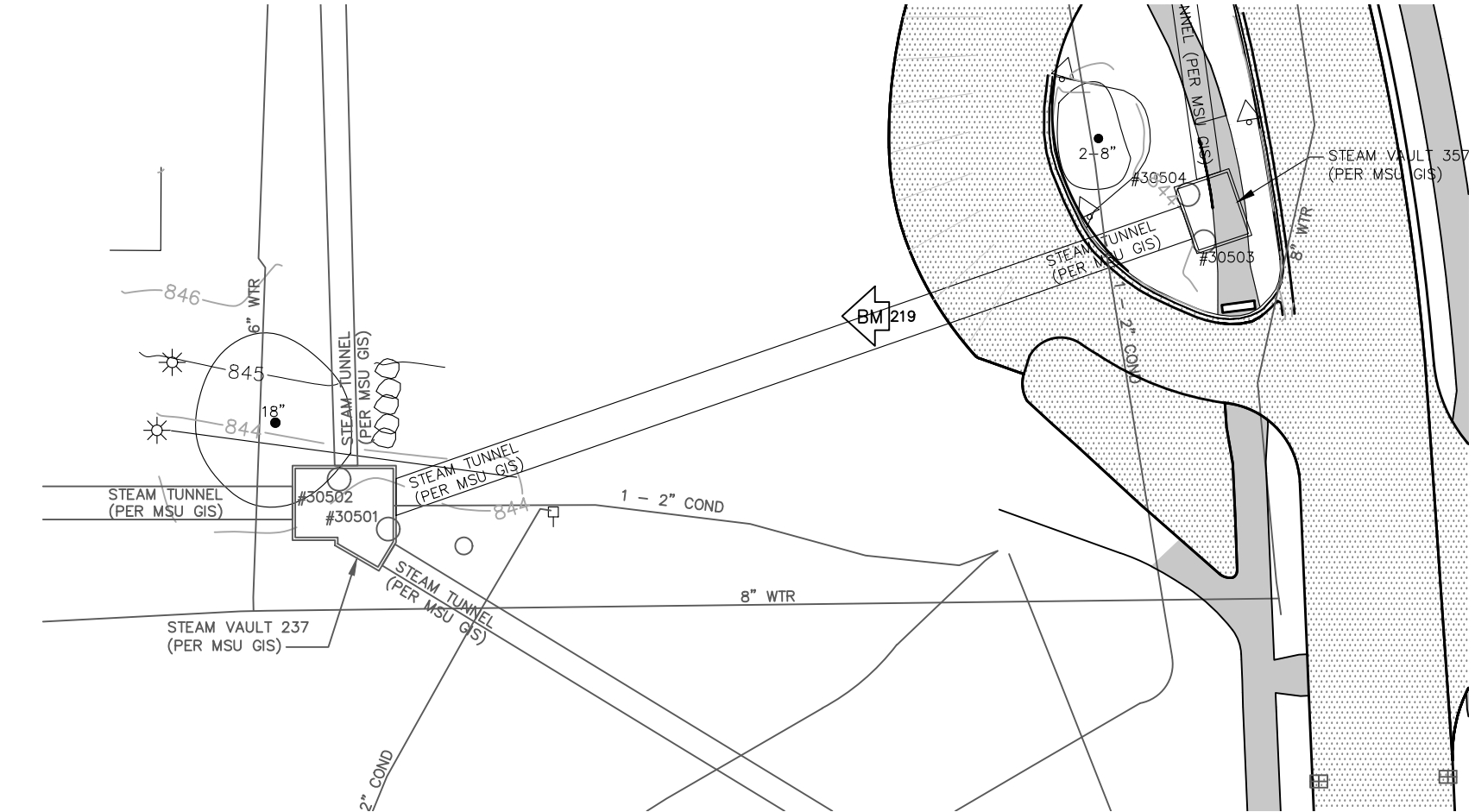
EXISTING STRUCTURES					
STRUCTURE	MSU	RIM ELEV.	INVERT	ELEVATION	NOTES
CB 20500		834.08	12" E	829.39	4' DIA STO
			12" W	829.68	
20501	634	835.97	NA	NA	8' X 7' COMM VAULT
CB 20502	406	835.02	12" SE	829.06	4' DIA STO
			12" W	829.15	
MH 20503	954	836.48	12" S	832.94	4' STO
			8" SW	831.97	
			15" NE	831.97	
MH 20504	123	836.50	NA	NA	8' X 7' COMM VAULT
MH 20505	31459	835.86	24" E	827.84	6' DIA STO
			12" NW	828.77	
			15" W	827.87	
MH 20506	403	836.17	16" E	829.46	4' DIA STO
			8" S	829.95	
			6" SW	830.05	
			18" W	830.92	
			12" W	829.85	BULKHEADED WITH VALVE IN PIPE
			12" N	829.91	BULKHEADED
MH 20507	1467	837.01	4" SW	830.84	4' DIA STO
			4" SW	830.62	
			4" SW	830.54	
			4" SW	830.53	
			10" N	830.74	VALVE?
MH 20508	408	837.64	36" N	826.62	6' DIA STO
			12" NW	833.19	
			12" W	828.53	
			36" S	826.58	
CB 20509		837.17	12" SE	833.40	4' DIA STO
			6" NW	833.41	
MH 20510	98	839.84	NA	NA	8' X 8' ELEC VAULT
MH 20511	10651	843.01	12" E	838.30	6' DIA STO
			36" SW	828.92	
			36" N	827.60	
MH 20512	4918	843.38	6" SE	837.47	4' DIA SAN
			10" S	828.23	
			10" W	828.55	
			18" N	828.07	
30500	35474	844.24	NA	NA	LOCKED VAULT
30501	237	844.19	NA	NA	STEAM VAULT SAME AS 30502
30502	237	843.94	NA	NA	STEAM VAULT SAME AS 30501
30503	357	843.85	NA	NA	STEAM VAULT SAME AS 30504
30504	357	843.71	NA	NA	STEAM VAULT SAME AS 30503
MH 30505	996	838.20	8" N	834.02	3' DIA STO
			6" N	834.08	
			6" SE	834.07	
MH 30506	995	836.09	8" NE	833.76	2' DIA SAN
			6" E	833.68	
			8" S	833.63	
CB 30507		841.88	8" N	836.88	2' DIA STO
CB 30508		842.58	6" NW	836.70	4' DIA STO
			4" SW	837.71	
			12" S	836.23	
			18" E	832.09	
			12" W	832.87	
			15" S	832.10	
MH 30509		841.79	4" S	837.97	2' DIA STO
			4" N	837.97	
MH 30510	4916	843.04	10" E	829.03	4' SAN
			10" S	829.29	
MH 30511	10650	842.90	18" W	831.91	6' DIA STO
			36" NE	830.14	
			36" S	829.87	
MH 30512	953	841.71	15" N	833.07	4' DIA STO
			15" S	833.66	
			10" E	836.65	
			10" W	836.26	BULKHEADED
			6" W	837.61	
			8" W	839.46	
			10" S	833.62	
MH 30513	995	844.49	6" N	839.50	4' DIA SAN
			15" W	834.49	
			15" NE	834.24	

BENCH MARK 219 ELEVATION: 845.46
BRASS DISK SET IN CONCRETE MONUMENT
W SIDE CHESTNUT RD SE OF MUN ICE ARENA

BENCH MARK 221 ELEVATION: 833.92
BRASS DISK SET IN CONCRETE MONUMENT
S SIDE KALAMAZOO ST BETWEEN CURB AND WALK,
NW OF SPARTY,0.4' BELOW GRADE BACK OF CURB

MSU DATUM
HORIZONTAL: NAD83(86) U.S. SURVEY FOOT
VERTICAL: NGVD29 U.S. SURVEY FOOT

SURVEY CONDUCTED BY ENG., INC ON 07/15/2026



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APPR. K. MCFARLANE

DATE 10/7/26

SCALE AS SHOWN

REVISIONS

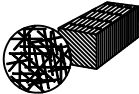
CD DELIVERABLE

EXISTING CONDITIONS

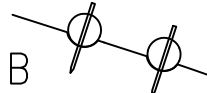
C101

2 OF 13

SOIL EROSION CONTROL MEASURES

E6	MULCH		For use in areas subject to erosive surface flows or severe wind or on newly seeded areas.	6 P
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).	8 P

SEDIMENTATION CONTROL MEASURES

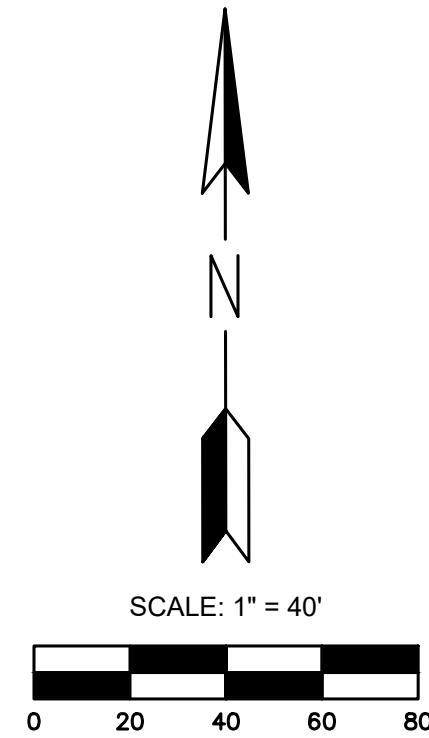
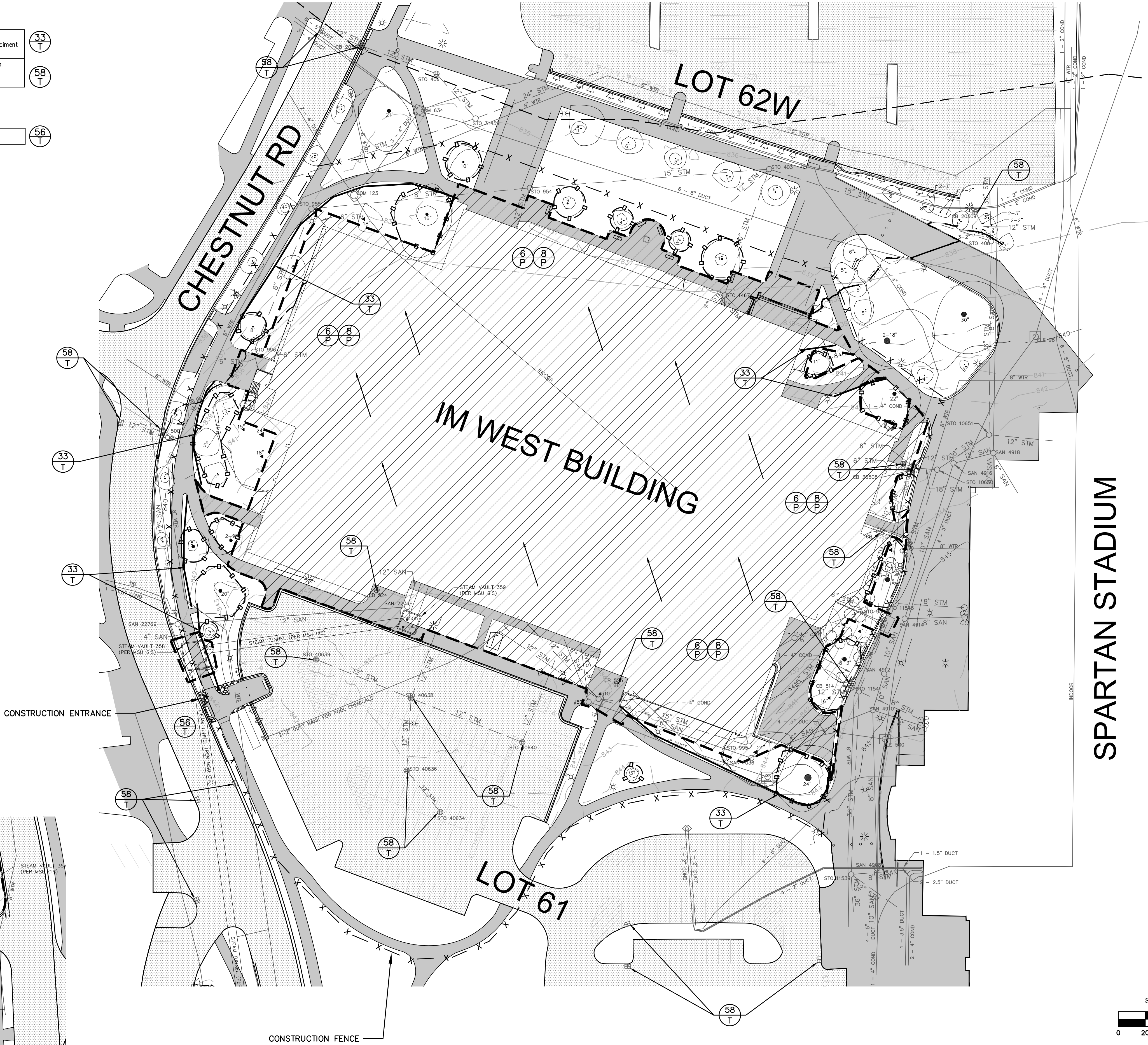
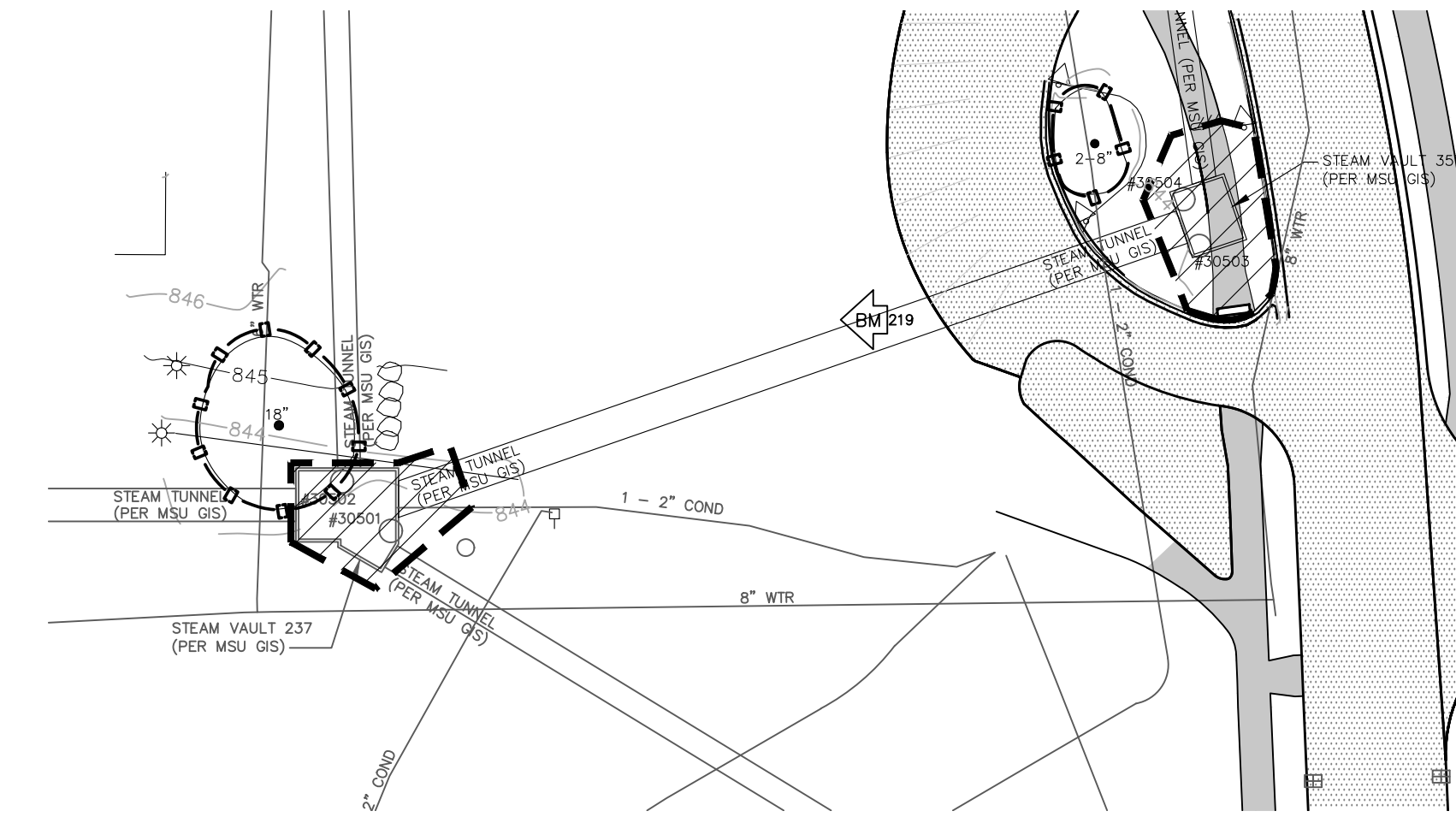
ES33	FILTER ROLLS		In areas requiring immediate protection of slopes against surface erosion and gully formation and for perimeter sediment control.	33 T
S58	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.	58 T

ROUTINE MAINTENANCE ACTIVITY DETAILS

56	Street Sweeping		Remove sediment from pavement minimizing non-point source pollution.	56 T
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SYMBOL LEGEND

- LIMITS OF DISTURBANCES
- TREE PROTECTION (BY OWNER) COORDINATE WITH CONSTRUCTION MANAGER TO PROVIDE TREE PROTECTION FENCING.
- DIRECTION OF FLOW OF SURFACE WATER RUNOFF.
- APPROXIMATE LIMITS OF EXCAVATION FOR BUILDING, ADJACENT UTILITIES AND SIDEWALK REMOVAL. OTHER SITE DISTURBANCE MAY BE NECESSARY WITHIN THE OVERALL LIMITS OF DISTURBANCE
- FILTER ROLLS
- X --- CONSTRUCTION FENCE



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APPR.	K. MCFARLANE
DATE	10/7/26
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REVISIONS	
CD DELIVERABLE	

SOIL EROSION CONTROL NOTES

- THE CONTRACTOR SHALL COMPLY WITH ALL CONTRACT DOCUMENTS, APPROVED SOIL EROSION AND SEDIMENTATION CONTROL (S.E.S.C.) PLANS, PERMIT CONDITIONS AND WITH PARTS 31 AND 91 OF PUBLIC ACT 451 OF 1994. THE OWNER SHALL OBTAIN A (S.E.S.C.) PERMIT FROM THE APPROPRIATE MUNICIPAL ENFORCING AGENCY (M.E.A.) OR COUNTY ENFORCING AGENCY (C.E.A.) PERMIT FEES AND ROUTINE INSPECTIONS CHARGED BY THE M.E.A./ C.E.A. WILL BE PAID FOR BY THE OWNER.
- PRIOR TO BEGINNING ANY EARTH CHANGE, THE CONTRACTOR SHALL RETAIN A M.D.E.Q. CERTIFIED STORM WATER OPERATOR (C.S.W.O.) TO PROVIDE THE REQUIRED S.E.S.C. REPORTS (WHICH INCLUDE THE WEEKLY AND STORM EVENT REPORTS AS WELL AS ALL FOLLOW UP REPORTS FOR BOTH VIOLATIONS AND STORM EVENT CORRECTIONS) ON THE STANDARD M.D.N.R.E. FORM. THE CONTRACTOR SHALL PROVIDE THE REPORTS TO THE OWNER ON A WEEKLY BASIS, AND RETAIN THOSE REPORTS FOR THREE YEARS.
- PRIOR TO BEGINNING ANY EARTH CHANGE, THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL S.E.S.C. MEASURES AS SHOWN ON THE CONTRACT DOCUMENTS AND AS DIRECTED BY THE OWNER, C.S.W.O., M.E.A./ C.E.A. OR M.D.E.Q. AT ANYTIME DURING THE LIFE OF THE CONTRACT OR UNTIL M.S.U. OFFICIALLY TAKES OVER RESPONSIBILITY FOR THE SITE. IMMEDIATELY PRIOR TO M.S.U. TAKING RESPONSIBILITY FOR THE SITE, THE CONTRACTOR WILL BE REQUIRED TO CLEAN ALL CATCH BASINS AFFECTED BY THE CONSTRUCTION, BOTH WITHIN THE CONTRACT LIMITS AND ALL SURROUNDING ROADS AND LAWN AREAS WHERE SOIL MAY HAVE SPREAD AS A RESULT OF CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL CONDUCT ALL EXCAVATION, FILLING, GRADING, AND CLEAN UP OPERATIONS IN A MANNER SUCH THAT SEDIMENT, GENERATED BY WIND OR WATER IS NOT DISCHARGED INTO ANY STORM SEWER, DRAINAGE DITCH, RIVER, LAKE, AIR, OR UNDERGROUND UTILITY SYSTEM. STAGE WORK TO MINIMIZE THE AREA OF EXPOSED SOIL, THEREBY REDUCING THE OPPORTUNITY FOR SOIL EROSION.
- WATER FROM TRENCHES AND OTHER EXCAVATION SHALL BE PUMPED INTO A FILTRATION BAG TO REMOVE SEDIMENTS FROM THE WATER.
- IF SEDIMENT EXTENDS BEYOND THE PROJECT LIMITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP AND RESTORATION OF ALL SURFACES AND UTILITY SYSTEMS TO THE CONDITION THAT EXISTED PRIOR TO THE CONTRACT AWARD.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL S.E.S.C. MEASURES ON A DAILY BASIS.
- SHOULD VIOLATIONS BE IDENTIFIED BY THE OWNER, C.S.W.O., M.E.A./ C.E.A. OR M.D.E.Q., THEY SHALL BE CORRECTED WITHIN 24 HOURS OF NOTIFICATION, THE CORRECTION(S) SHALL BE APPROVED BY THE OWNER, C.S.W.O., M.E.A./ C.E.A. OR M.D.E.Q.. ALL SUBSEQUENT INSPECTIONS PERFORMED BY THE OWNER, C.S.W.O., M.E.A./ C.E.A. OR M.D.E.Q. AS A RESULT OF THE VIOLATION (AND ANY OTHER ASSOCIATED COSTS) WILL BE PAID FOR BY THE CONTRACTOR. IF IDENTIFIED VIOLATIONS ARE NOT CORRECTED WITHIN 24 HOURS OF WRITTEN NOTICE, THE OWNER WILL MAKE THE REQUIRED REPAIRS WITHOUT FURTHER NOTIFICATION, AT THE CONTRACTORS EXPENSE.
- FINES ASSESSED AS A RESULT OF THE VIOLATION FOR NON --COMPLIANCE OF THE S.E.S.C. PROVISIONS WILL BE PAID BY THE CONTRACTOR. SHOULD A "STOP WORK" ORDER FOR NON --COMPLIANCE BE ISSUED, A TIME EXTENSION REQUEST FOR THAT PERIOD WILL NOT BE GRANTED. (FINES COULD BE ASSESSED UP TO AND INCLUDING \$25,000 PER DAY FOR EACH VIOLATION).

- SUBJECT SITE IS NOT WITHIN 500 FEET OF A STREAM OR RIVER.
- SOIL TYPE: URBANIZED SOILS.
- ALL DISTURBED AREAS SHALL RECEIVE PERMANENT EROSION CONTROL MEASURES WITHIN 5 DAYS OF FINAL GRADING.
- SHOULD VIOLATIONS BE IDENTIFIED BY THE OWNER, C.S.W.O., M.E.A./C.E.A. OR D.E.Q., THEY SHALL BE CORRECTED WITHIN 24 HOURS OF NOTIFICATION. THE CORRECTION(S) SHALL BE APPROVED BY THE OWNER, C.S.W.O., M.E.A./C.E.A. OR D.E.Q. ALL SUBSEQUENT INSPECTIONS PERFORMED BY THE OWNER, C.S.W.O., M.E.A./C.E.A. OR D.E.Q. AS A RESULT OF THE VIOLATION (AND ANY OTHER ASSOCIATED COSTS) WILL BE PAID BY THE CONTRACTOR. IF IDENTIFIED VIOLATIONS ARE NOT CORRECTED WITHIN 24 HOURS OF WRITTEN NOTICE, THE OWNER WILL MAKE THE REQUIRED REPAIRS WITHOUT FURTHER NOTIFICATION, AT THE CONTRACTOR'S EXPENSE.
- APPROXIMATE QUANTITIES OF EXCAVATION A FILL:
APPROXIMATE TOTAL EXCAVATION 2683 CYD
TOTAL FILL 48200 CYD
NOTE: CONTRACTOR SHALL DETERMINE THEIR OWN QUANTITIES OF EXCAVATED MATERIAL & SEQUENCE EVENTS. ABOVE QUANTITIES ARE FOR PERMIT APPLICATION PURPOSES ONLY
- CONSTRUCTION ACCESS ROAD WILL BE PROTECTED WITH CRUSHED STONE OR CONCRETE, AGGREGATE SIZE 1"-2" OR ASPHALT AS NOTED ON PLAN.
- PROJECT SITE BOUNDARY OF DISTRIBUTION PROJECT -- 3.45 ACRES.
- COST OF PERMIT -- TOTAL ACRES OF PROJECT = 3.45 ACRES.
- THERE ARE NO WETLANDS ON OR IMMEDIATELY ADJACENT TO THE PROJECT SITE.
- STRIP ALL TOPSOIL WITHIN THE LIMITS OF WORK AS INDICATED ON DEMOLITION PLAN. HAUL OFFSITE TO THE DESIGNATED SITE (E.G. BEAUMONT NURSERY). IF NOT IN USE, OWNER SHALL PROTECT ANY STOCKPILES AT THE DISPOSAL SITE WITH SILT FENCE, TEMP SEEDING OR SIMILAR TO PREVENT EROSION.
- A WATER TRUCK SHALL BE AVAILABLE TO WATER DOWN SITE AS REQUIRED TO MAINTAIN DUST CONTROL.
- DIRT OR MUD TRACKED ONTO CONCRETE OR PAVED AREAS SHALL BE PROMPTLY REMOVED AND SURFACE CLEANED.
- STORM WATER FROM THE SITE SHALL NOT ADVERSELY IMPACT ADJACENT PROPERTIES DURING CONSTRUCTION. FINAL TOPOGRAPHY OF THE SITE SHALL ALSO NOT HAVE ANY ADVERSE EFFECTS ON ADJOINING LANDS. NOTE: ALL ADJACENT LANDS TO THE SITE ARE OWNED BY MICHIGAN STATE UNIVERSITY.

CONSTRUCTION SEQUENCE SCHEDULE (2027)

Sequence of Construction Activities	May	June	July	Aug	Sept	Oct	Nov
TEMPORARY CONTROL MEASURES							
INSTALL FENCES AND GATES							
DEMOLISH BUILDING							
REMOVE PAVEMENT							
STRIP TOPSOIL/HAUL OFFSITE							
PAVING CONCRETE							
RESTORATION							

* CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF TEMPORARY CONTROL MEASURES IN ALL PROJECT SEGMENTS UNTIL PERMANENT RESTORATION IS COMPLETE AND OWNER TAKES OVER RESPONSIBILITY

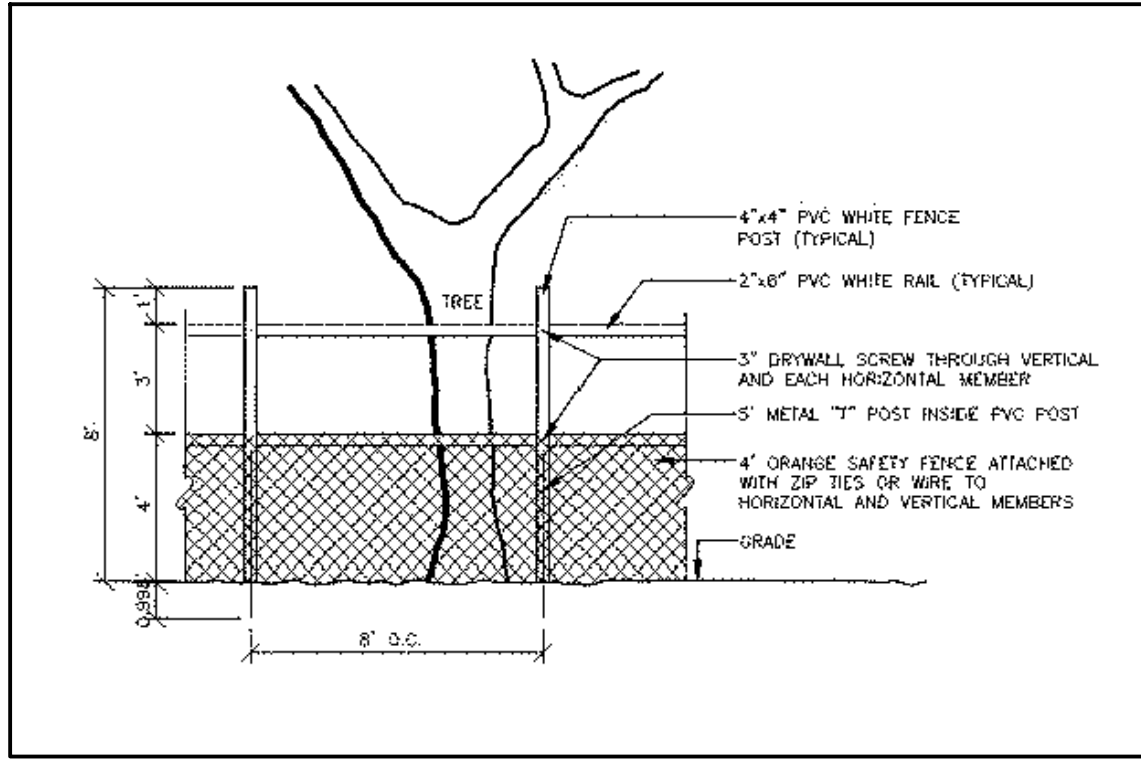
SITE DESCRIPTION:

PART OF PARCEL
33-20-01-13-401-001 MICHIGAN STATE
UNIVERSITY, EAST LANSING 48824

MORE PARTICULARLY DESCRIBED AS
IM WEST FITNESS CENTER

SOIL EROSION CONTROL NOTES

- THE EXTENT OF REMOVAL AND DEMOLITION SHALL BE FIELD VERIFIED BY CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM INFORMATION SHOWN.
- PRIOR TO CONSTRUCTION ALL FENCING, BARRICADES, ENCLOSURES, ETC., MUST BE INSTALLED AND APPROVED BY OWNER OR CONSTRUCTION MANAGER.
- DISPOSE OF DEMOLITION AND EXCAVATION MATERIALS TO ACCORDANCE WITH CONTRACT DOCUMENTS.
- SOIL EROSION AND SEDIMENTATION CONTROLS MUST BE IN PLACE PRIOR TO STARTING REMOVALS AND DEMOLITION.
- UNLESS SPECIFICALLY NOTED FOR REMOVAL ON THE PLANS ALL SIDEWALK, DRIVES, CULVERTS, DRAINAGE STRUCTURES, AND ABOVE AS WELL BELOW GRADE UTILITIES SHALL BE PROTECTED. ALL SUCH ITEMS DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH NEW AT NO ADDITIONAL COST TO THE OWNER.
- PROTECT EXISTING TREES TO REMAIN WITH TEMPORARY FENCING AT DRIP LINE. NO GROUND DISTURBANCE OR STORAGE OF MATERIAL/EQUIPMENT SHALL OCCUR WITH IN THE DRIP LINE LIMITS
- ELECTRICAL, TELEPHONE, CABLE TV, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY . ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE CONSTRUCTION LIMITS. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
- PERFORM CLEARING, GRUBBING, TREE AND STUMP REMOVAL, TOPSOIL REMOVAL AND STOCKPILING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- BEFORE REMOVING OR ABANDONING ANY UTILITY PIPES, VERIFY NEW UTILITY PIPE HAS BEEN INSTALLED TESTED AND IS OPERATIONAL.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY CRITICAL INVERT INFORMATION PRIOR TO BEGINNING CONSTRUCTION.
- DAMAGE CAUSED TO SURROUNDING AREA PAVEMENT OUTSIDE THE CONSTRUCTION LIMITS SHALL BE SAWCUT AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- COORDINATE SEQUENCING AND PHASING OF DEMOLITION WITH OWNER.
- SAWCUT CURB AND GUTTER AND SIDEWALKS TO NEAREST JOINT.

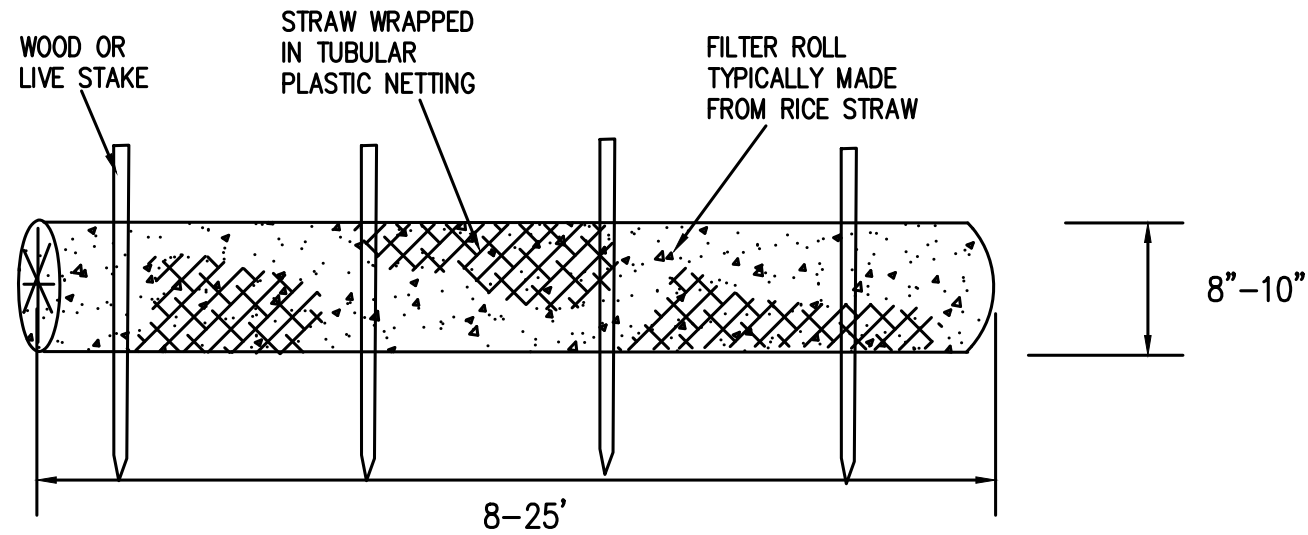
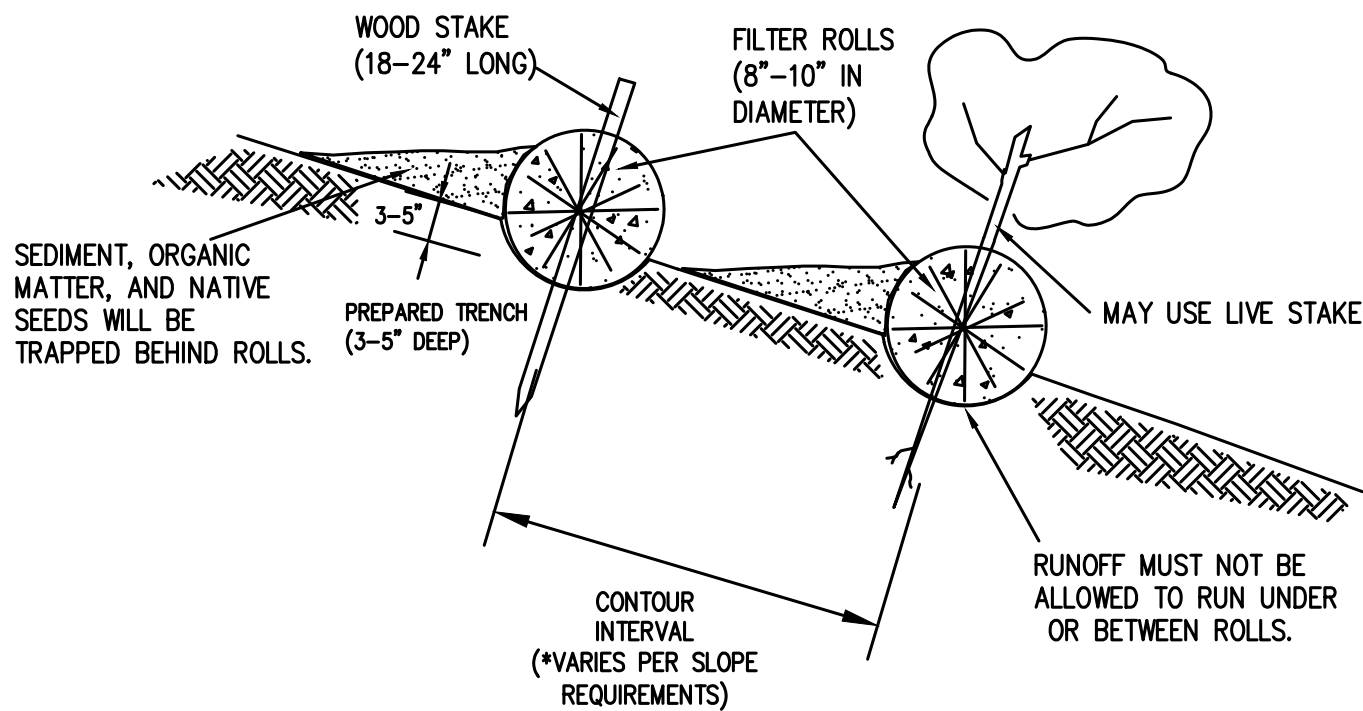


TREE PROTECTION FENCE (BY OWNER)

NO SCALE

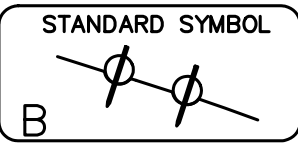
T33

FILTER ROLLS



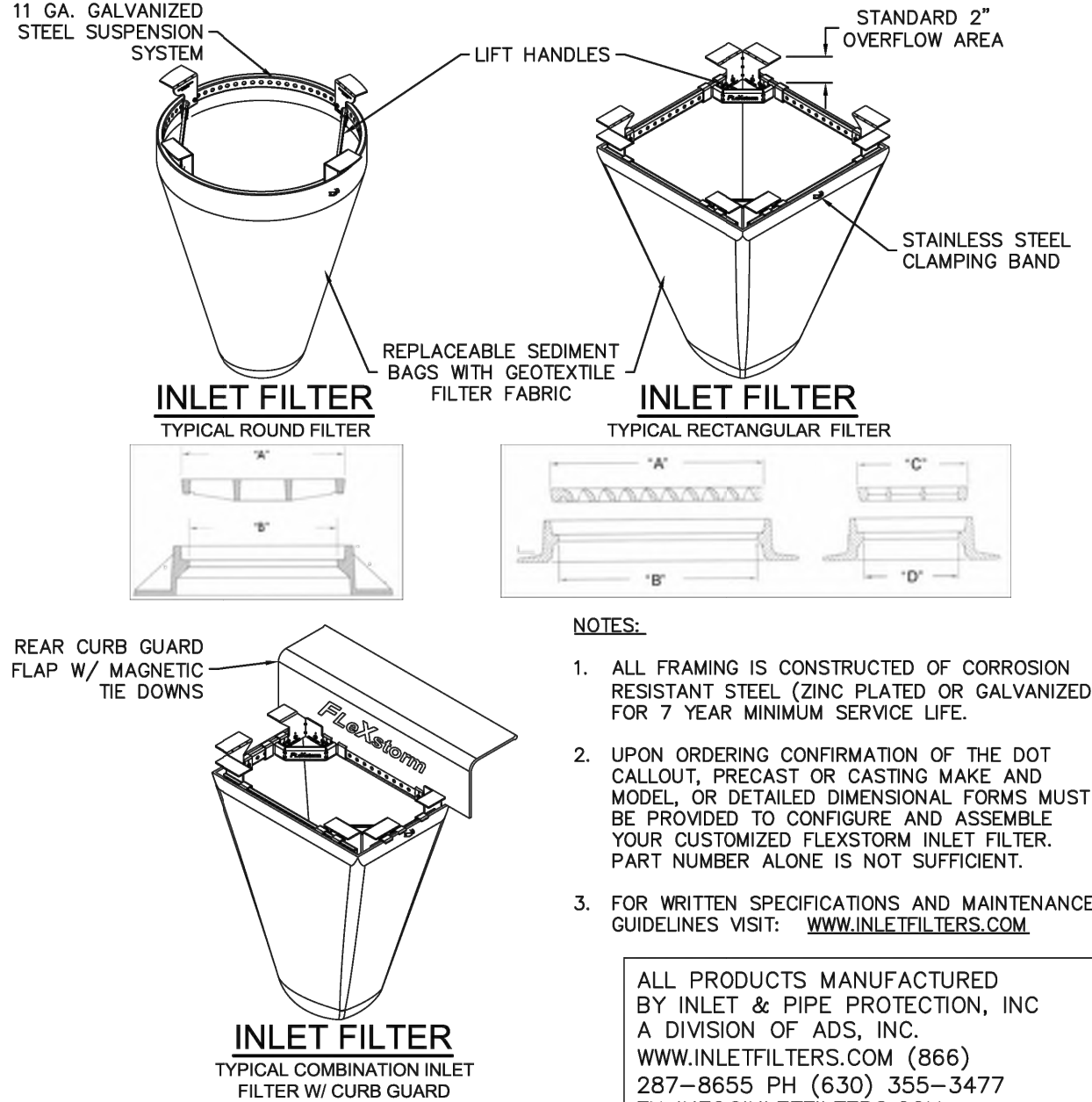
* SPACING INTERVAL					
SLOPE	1:1	1:2	1:3	1:4	1:6
CONTOUR INTERVAL	3'	4'	5'	6'	8'

ADAPTED FROM NRCS, SOMERSET, NJ



STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY,
MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION

T55 FLEXSTORM CATCH-IT INLET FILTERS
PRODUCT SELECTION AND SPECIFICATION DRAWING
(SEE PAGE 2 OF 2 FOR SIZING SELECTION)

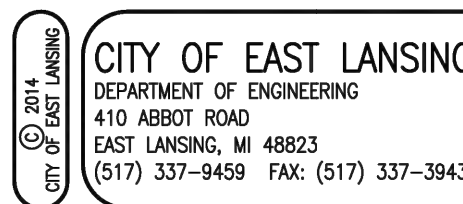


NOTES:

- ALL FRAMING IS CONSTRUCTED OF CORROSION RESISTANT STEEL (ZINC PLATED OR GALVANIZED) FOR 7 YEAR MINIMUM SERVICE LIFE.
- UPON ORDERING CONFIRMATION OF THE DOT CALLOUT, PRECAST OR CASTING MAKE AND MODEL OR DETAILED DIMENSIONAL FORMS MUST BE PROVIDED TO CONFIGURE AND ASSEMBLE YOUR CUSTOMIZED FLEXSTORM INLET FILTER. PART NUMBER ALONE IS NOT SUFFICIENT.
- FOR WRITTEN SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT: WWW.INLETFILTERS.COM.

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC A DIVISION OF ADS, INC.
WWW.INLETFILTERS.COM (866) 287-8655 PH (630) 355-3477
FX INFO@INLETFILTERS.COM

SIZE	INLET & PIPE PROTECTION, INC. DWG NO.:	REV
C	FLEXSTORM_CATCH_IT	A



CITY OF EAST LANSING
DEPARTMENT OF ENGINEERING
410 ABBOT ROAD
EAST LANSING, MI 48823
(517) 337-9459 FAX: (517) 337-3943

STANDARD DETAILS				REVISION
FLEXSTORM CATCH-IT INLET FILTERS				ENG. REVIEW
SHEET NAME	CHECKED	APPROVED	DATE	DATE
CJM	RFS	RFS	03/01/16	03/01/16
DATE	DATE	DATE	DATE	DATE
02/20/14	03/14/14	03/14/14		
SHEET NO.				1 OF 2

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1. IDENTIFY YOUR FRAME STYLE AND SIZE		FRAME STYLE AND SIZE	FRAME P/N:
ROUND	STYLE	Small Round (up to 20.0" dia. grates (A) diam)	62SRD
		Med Round (20.1" - 26.0" dia. grates (A) up to 25" dia. openings (B))	62MRD
		Large Round (26.1" - 32.0" dia. grates (A) up to 30" openings (B))	62LRD
		XL Round (32.1" dia. - 39" dia. grates (A) up to 37" dia. openings (B))	62XLRD
RECT / SQUARE		Small Rect / Square (up to 16" (B) x 16" (D) openings or 64" perimeter)	62SLSQ
		Med Rect / Square (up to 24" (B) x 24" (D) openings or 96" perimeter)	62MSQ
		Large Rect / Square (up to 36" (B) x 24" (D) openings or 120" perimeter)	62LSQ
		XL Rect / Square (side by side 2 pgs. opt to fit up to 48" (B) x 36" (D) openings)	62XLSQ
CANYON UNITS		Small Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62SCB
		Med Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62MCB
		Large Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62LCB
		XL Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62XLCB
NYLOPLAST		12" diameter Nyloplast castings (Stainless Steel Framing standard)	6212NY
		15" diameter Nyloplast castings (Stainless Steel Framing standard)	6215NY
		18" diameter Nyloplast castings (Stainless Steel Framing standard)	6218NY
		24" diameter Nyloplast castings (Stainless Steel Framing standard)	6224NY
		30" diameter Nyloplast castings (Stainless Steel Framing standard)	6230NY

T55 FLEXSTORM CATCH-IT INLET FILTERS
PRODUCT SELECTION AND SPECIFICATION DRAWING
(SEE PAGE 1 OF 2 FOR DETAIL DRAWINGS)

2. SELECT YOUR BAG PART NUMBER		12" depth	12" depth	Clear Water Flow Rate (GPM/SqFt)	Min A.C.S. (US Sieve)
FLEXSTORM FILTER BAGS	STD Bag P/N	Short Bag P/N			
	FX Standard Woven Bag	FX	FX-S	200	40
	ILLDOT Non-Woven Bag	L	L-S	145	70

3. CREATE YOUR FLEXSTORM INLET FILTER PART NUMBER	
Frame P/N from Step 1.	Filter Bag P/N from Step 2.

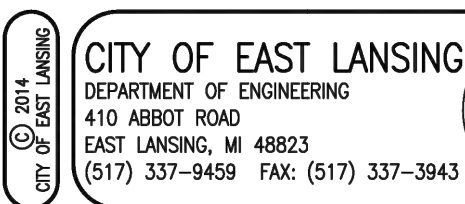
SPECIFICATIONS FOR STANDARD BAGS BY NOMINAL SIZE			
Nominal Bag Size	Solids Storage (CuFt)	Filtered Flow Rate at 50% Max (CFS)	IL (NonWoven)
Small	1.5	1.2	0.9
Medium	2.1	1.7	1.3
Large	3.8	2.7	1.9
XL	4.2	3.6	2.6

INSTALLATION NOTES:

- REMOVE GRATE
- DROP FLEXSTORM INLET FILTER ON TO LOAD BEARING UP OF CASTING OR CONCRETE STRUCTURE
- REPLACE GRATE

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SHEET NO.				2 OF 2

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Infrastructure
Planning and Facilities

MICHIGAN STATE
UNIVERSITY

IM WEST - DEMOLITION

CP26003

CAPITAL PROJ. NO.
CP26003

PR. MGR. T. PACIFIC
ARCH. NA
MECH. NA
ELEC. K. BEACH
CIVIL T. OSMAN
L.A. K. BURKS
INT. DES. NA
CONST. REP. T. PACIFIC
APPR. K. MCFARLANE
DATE 10/7/26
SCALE N/A
REVISIONS
CD DELIVERABLE

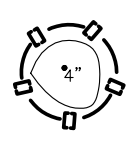
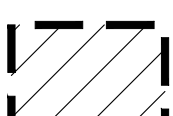
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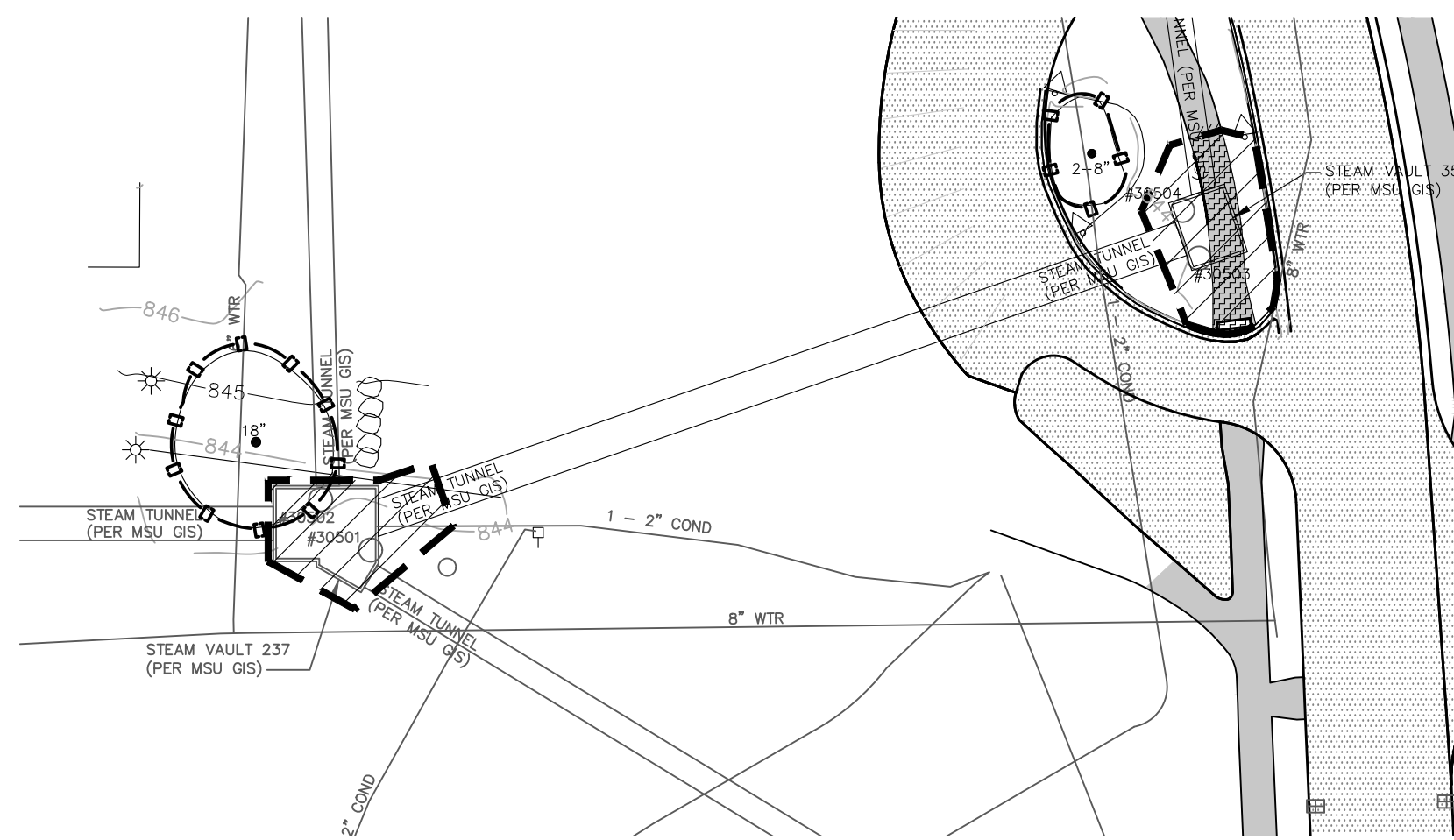
C103

DEMOLITION NOTES

1. VERIFY THE EXTENT OF REMOVALS AND DEMOLITION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM INFORMATION SHOWN.
2. PRIOR TO CONSTRUCTION ALL FENCING, BARRICADES, ENCLOSURES, ETC., MUST BE INSTALLED AND APPROVED BY OWNER OR CONSTRUCTION MANAGER.
3. DISPOSE OF DEMOLITION AND EXCAVATION MATERIALS IN ACCORDANCE WITH CONTRACT DOCUMENTS.
4. SOIL EROSION AND SEDIMENTATION CONTROLS MUST BE IN PLACE PRIOR TO STARTING REMOVALS AND DEMOLITION.
5. UNLESS SPECIFICALLY NOTED FOR REMOVAL ON THE PLANS ALL SIDEWALK, DRIVES, CULVERTS, DRAINAGE STRUCTURES, AND ABOVE AS WELL BELOW GRADE UTILITIES SHALL BE PROTECTED. ALL SUCH ITEMS DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH NEW AT NO ADDITIONAL COST TO THE OWNER.
6. PROTECT EXISTING TREES TO REMAIN WITH TEMPORARY FENCING AT DRIP LINE. NO GROUND DISTURBANCE OR STORAGE OF MATERIAL/EQUIPMENT SHALL OCCUR WITHIN THE DRIP LINE LIMITS
7. COORDINATED REMOVAL OR REPLACEMENT OF ELECTRICAL, TELEPHONE, CABLE TV, WATER, FIBER OPTIC CABLE AND/OR GAS LINES WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE CONSTRUCTION LIMITS. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.
8. PERFORM CLEARING, GRUBBING, TREE AND STUMP REMOVAL, TOPSOIL REMOVAL AND STOCKPILING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
9. BEFORE REMOVING OR ABANDONING ANY UTILITY PIPES, VERIFY NEW UTILITY PIPE HAS BEEN INSTALLED TESTED AND IS OPERATIONAL.
10. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY CRITICAL INVERT INFORMATION PRIOR TO BEGINNING CONSTRUCTION.
11. DAMAGE CAUSED TO SURROUNDING AREA PAVEMENT OUTSIDE THE CONSTRUCTION LIMITS SHALL BE SAWCUT AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
12. COORDINATE SEQUENCING AND PHASING OF DEMOLITION WITH OWNER.
13. SEE SHEETS C105, C106, AND C107 FOR ADDITIONAL DEMOLITION WORK
14. SAWCUT CURB AND GUTTER AND SIDEWALKS TO NEAREST JOINT.

SYMBOL LEGEND

- X** REMOVE OBJECT
-  TREE PROTECTION (BY OWNER)
-  APPROXIMATE LIMITS OF EXCAVATION FOR BUILDING, ADJACENT UTILITIES REMOVAL AND SIDEWALK. OTHER SITE DISTURBANCE MAY BE NECESSARY WITHIN THE OVERALL LIMITS OF DISTURBANCE



- # SITE SURFACE DEMOLITION KEY NOTES**
1. REMOVE AND SALVAGE SIGN
 2. SAWCUT PAVEMENT WITHIN REMOVAL AREAS
 3. REMOVE CURB AND GUTTER
 4. REMOVE TREE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER. CONTRACTOR TO REMOVE REMAINING STUMP WITHIN DEMOLITION LIMITS
 5. SAWCUT CONCRETE AT EXISTING JOINT
 6. REMOVE LANDSCAPING AND SHRUBS NECESSARY FOR UTILITY DEMOLITION AND RELOCATION BY OWNER

SITE SURFACE
DEMOLITION PLAN

Eng.TM
Engineering & Surveying
www.engdot.com

4063 Grand Oak Drive Suite A109
Lansing, MI 48911
517.887.1100

16930 Robbins Road Suite 105
Grand Haven, MI 49417
616.743.7070

2311 East Bellline Avenue, Suite 201
Grand Rapids, MI 49546
616.743.3020

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IM WEST - DEMOLITION

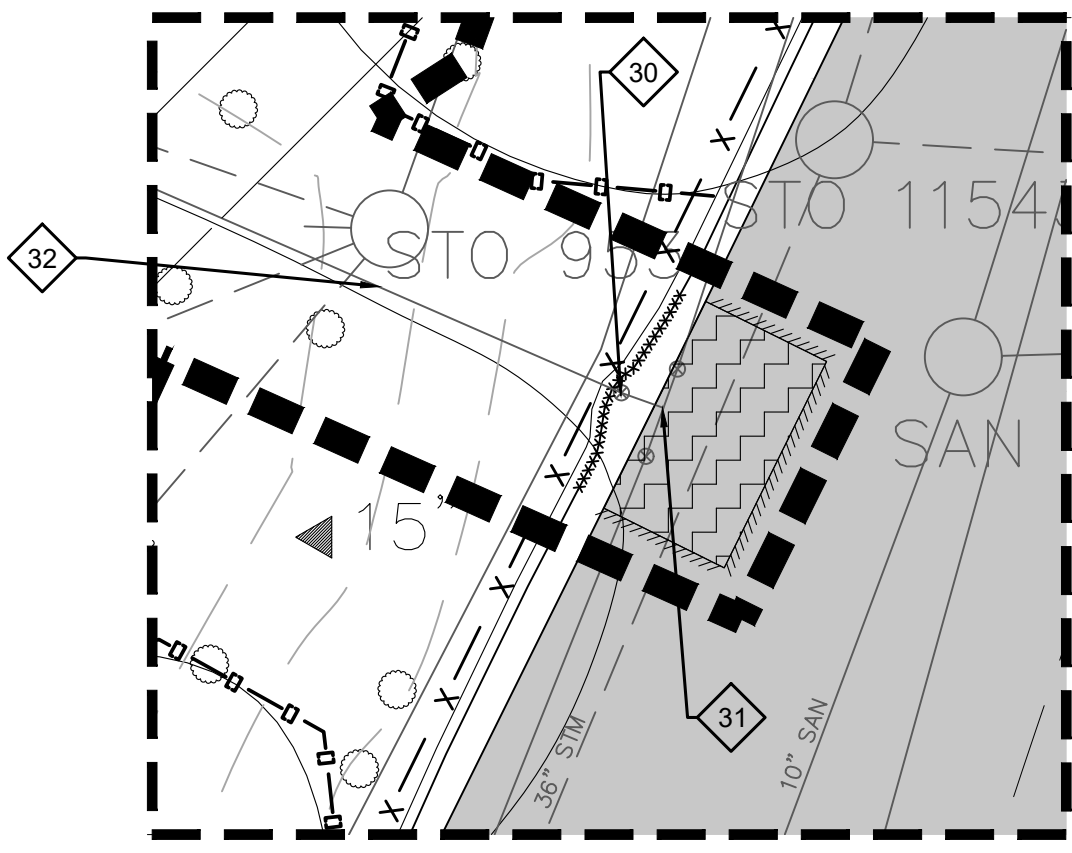
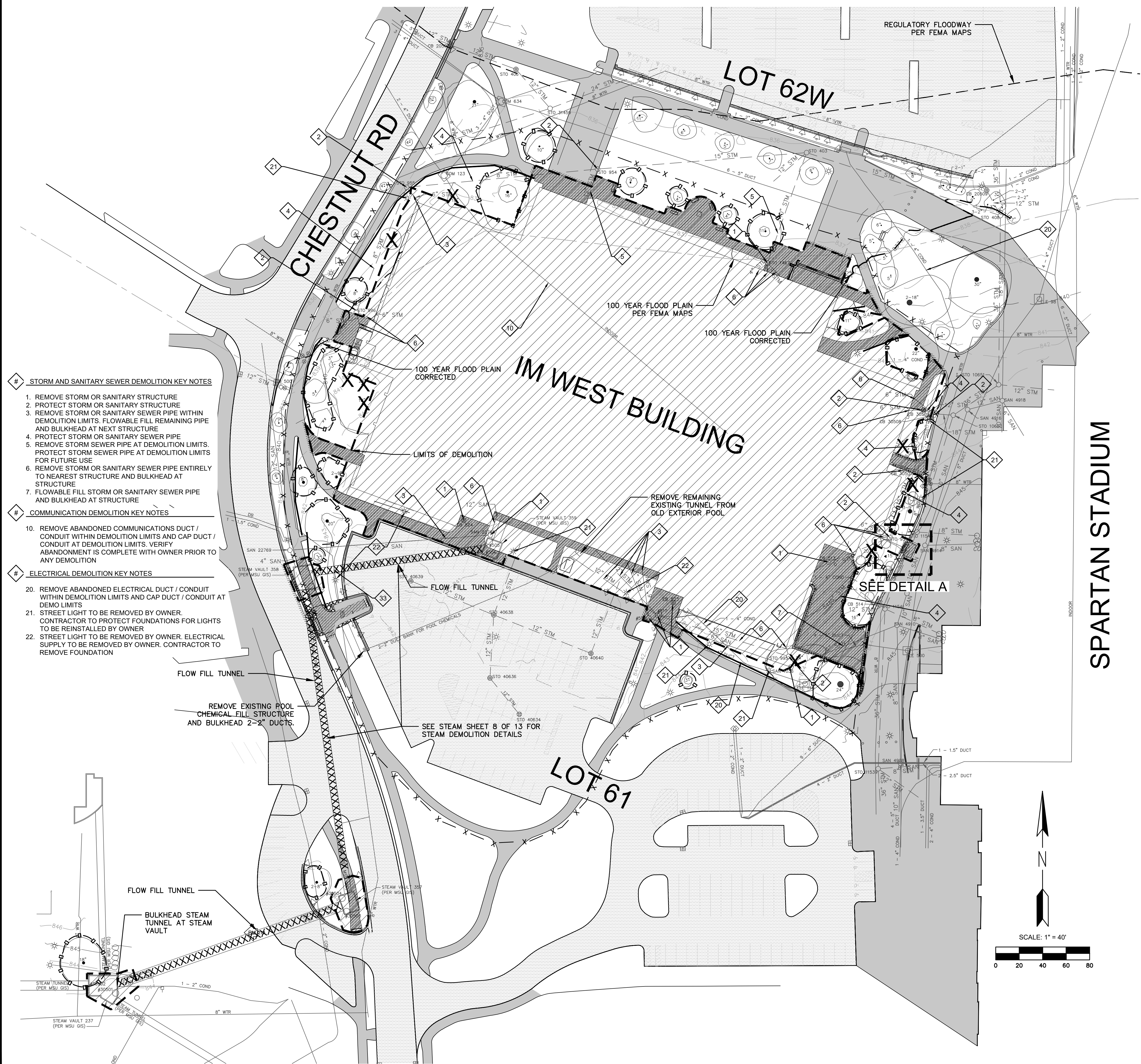
CP26003

CAPITAL PROJ. NO. CP26003	
PR. MGR.	T. PACIFIC
ARCH.	NA
MECH.	NA
ELEC.	K. BEACH
CIVIL	T. OSMAN
L.A.	K. BURKS
INT. DES.	NA
CONST. REP.	T. PACIFIC
APPR.	K. MCFARLANE
DATE	10/7/26
SCALE	AS SHOWN
REVISIONS	
CD DELIVERABLE	

SITE SURFACE
DEMOLITION PLAN

C104

5 OF 13



- # WATER DEMOLITION KEY NOTES
- 30. REMOVE VALVE.
 - 31. CAP TEE AND REMOVE WATER MAIN BETWEEN TEE AND VALVE.
 - 32. REMOVE WATER SERVICE PIPE WITHIN DEMOLITION LIMITS. FLOWABLE FILL REMAINING PIPE.
 - 33. REMOVE VERTICAL OFFSET PIPING OVER EXISTING STEAM TUNNEL AND INSTALL STRAIGHT RUN WATER MAIN ONCE STEAM TUNNEL IS REMOVED. SEE UTILITY PLAN SHEET FOR ADDITIONAL DETAILS

UTILITY DEMOLITION
RESPONSIBILITY TABLE

UTILITY	OWNER	SHUTDOWN RESPONSIBILITY	CONTRACTOR RESPONSIBILITY
ELECTRIC	MSU	MSU	REMOVE/BULKHEAD
STEAM	MSU	MSU	REMOVE/BULKHEAD
WATER	MSU	MSU	REMOVE/BULKHEAD /RELOCATE
SANITARY	MSU	MSU	REMOVE/BULKHEAD
STORM	MSU	MSU	REMOVE/BULKHEAD
FIBER	MSU	MSU	NA

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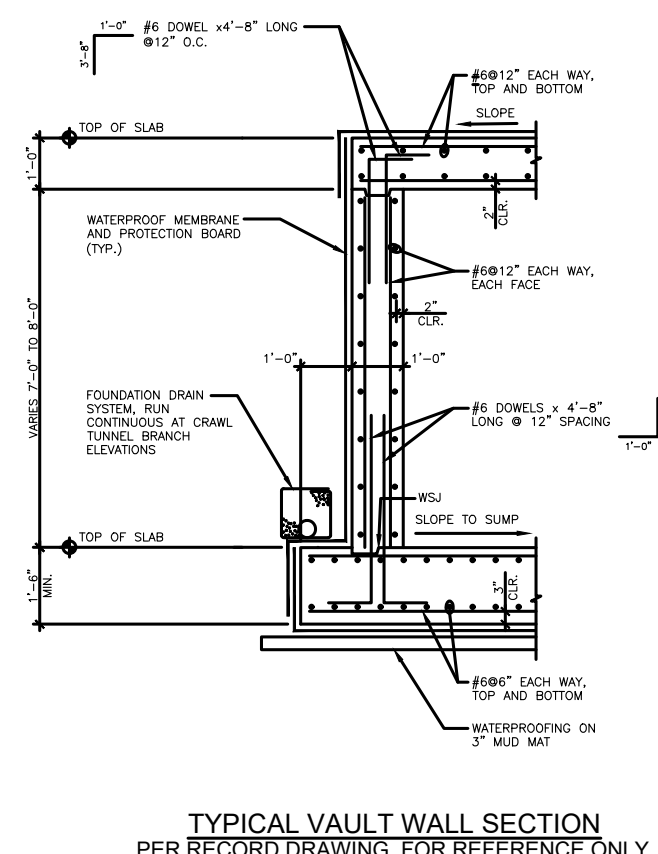
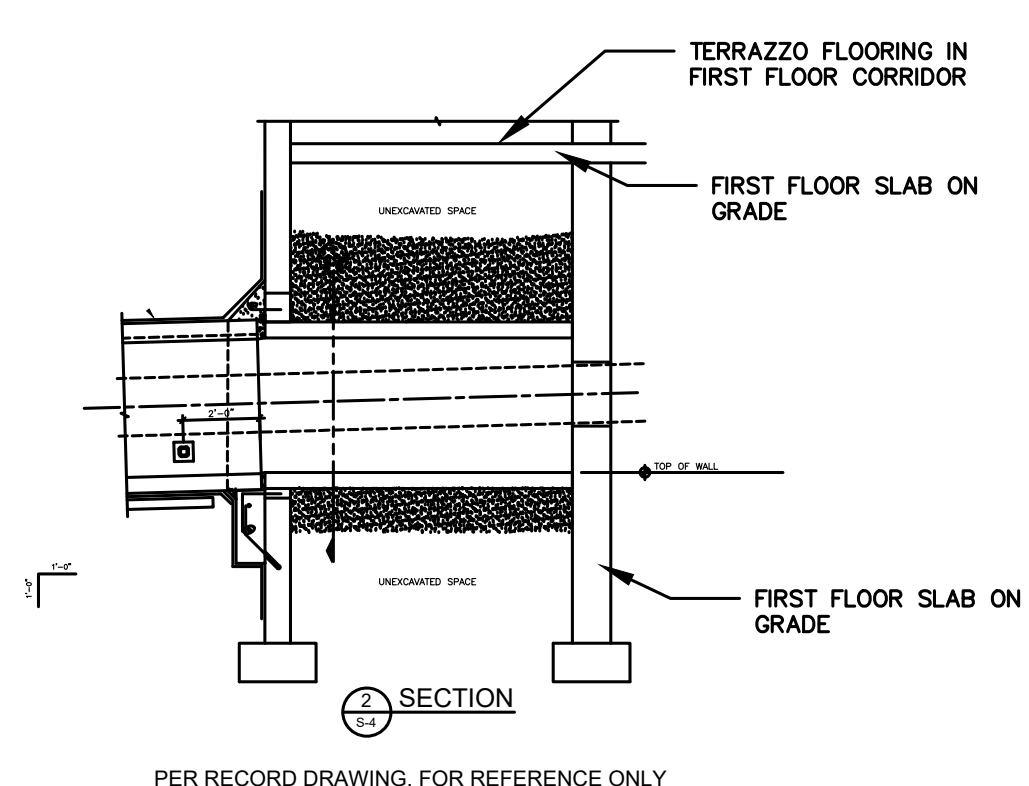
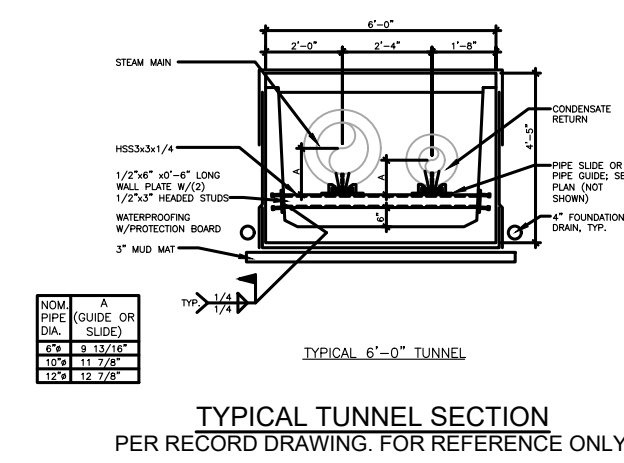
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STEAM DEMOLITION
PLAN

C106

STORM AND SANITARY SEWER DEMOLITION KEY NOTES

1. PROTECT STRUCTURE, EXISTING TUNNELS AND PIPING TO REMAIN. SEE VAULT 237 DEMOLITION DETAILS THIS SHEET FOR INTERNAL VAULT PIPING DEMOLITION AND BULKHEAD OF TUNNEL.
2. ABANDON STEAM VAULT AND TUNNEL IN PLACE. REMOVE MANHOLES, CEILING, AND WALLS TO 5' BELOW GRADE. BREAK HOLES IN FLOOR. BACKFILL REMAINING STRUCTURE WITH SAND. SEE STEAM DEMOLITION PLAN 2 FOR ADDITIONAL DETAILS.
3. FLOW FILL / ABANDON TUNNEL BETWEEN VAULTS.
4. CORE HOLE THROUGH TOP OF TUNNEL FOR FLOW FILL. INSTALL CORE LOCATIONS ON PLANS ARE FOR REFERENCE ONLY. CONTRACTOR TO SUBMIT FLOW FILL PLAN TO OWNER WITH CORE LOCATIONS TO ENSURE COMPLETE FILL OF TUNNEL.
5. BULKHEAD EXISTING TUNNEL.
6. REMOVING EXISTING TUNNEL AND STEAM PIPES.



NOTE: STEAM PIPES AND INSULATION MAY INCLUDE ASBESTOS CONTAINING MATERIAL (ACM) REQUIRING MITIGATION DURING REMOVAL AND PRIOR TO DISPOSAL. VERIFY PRIOR TO REMOVAL

STEAM VAULT 237
SCALE 1" = 5'

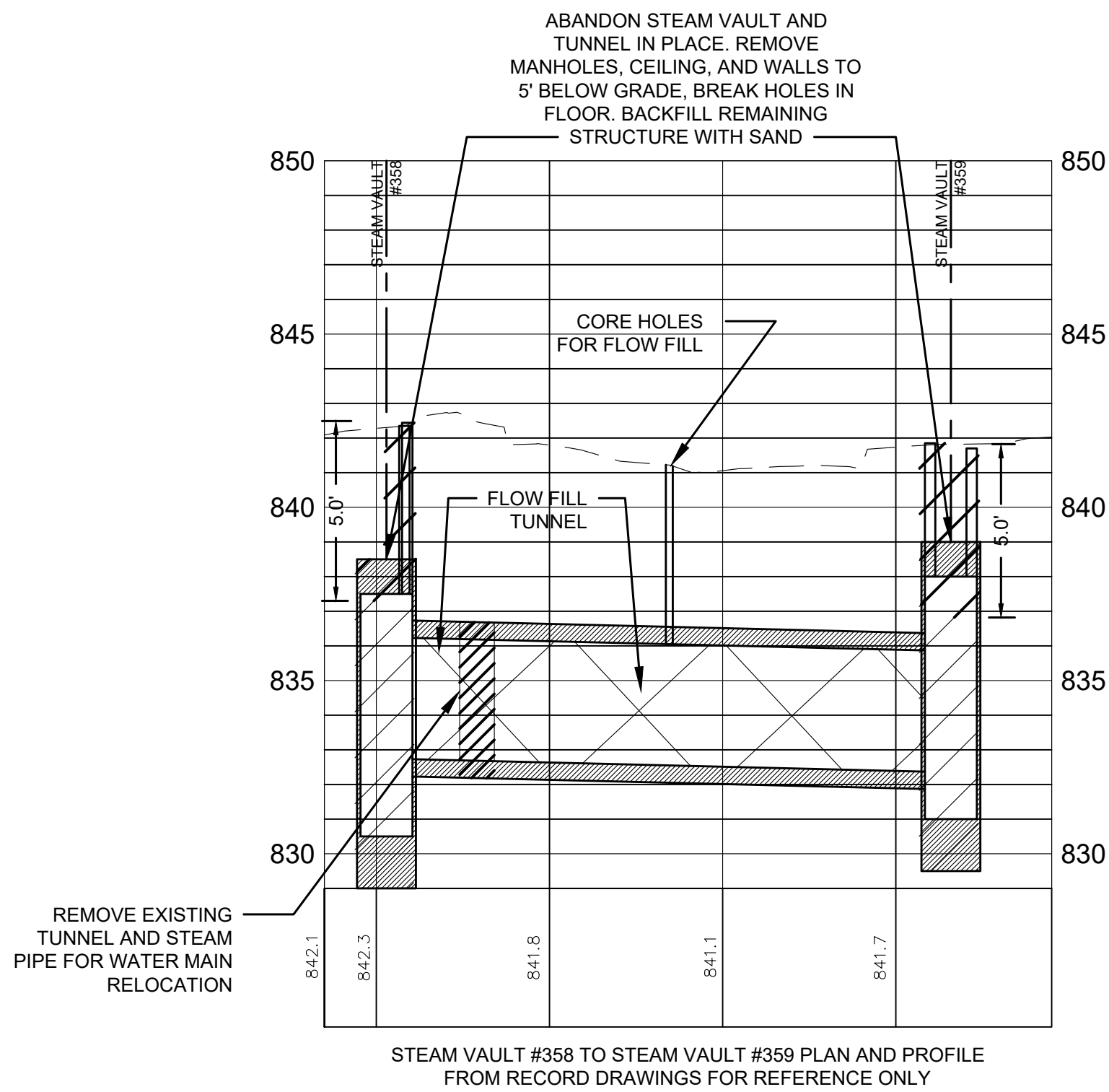
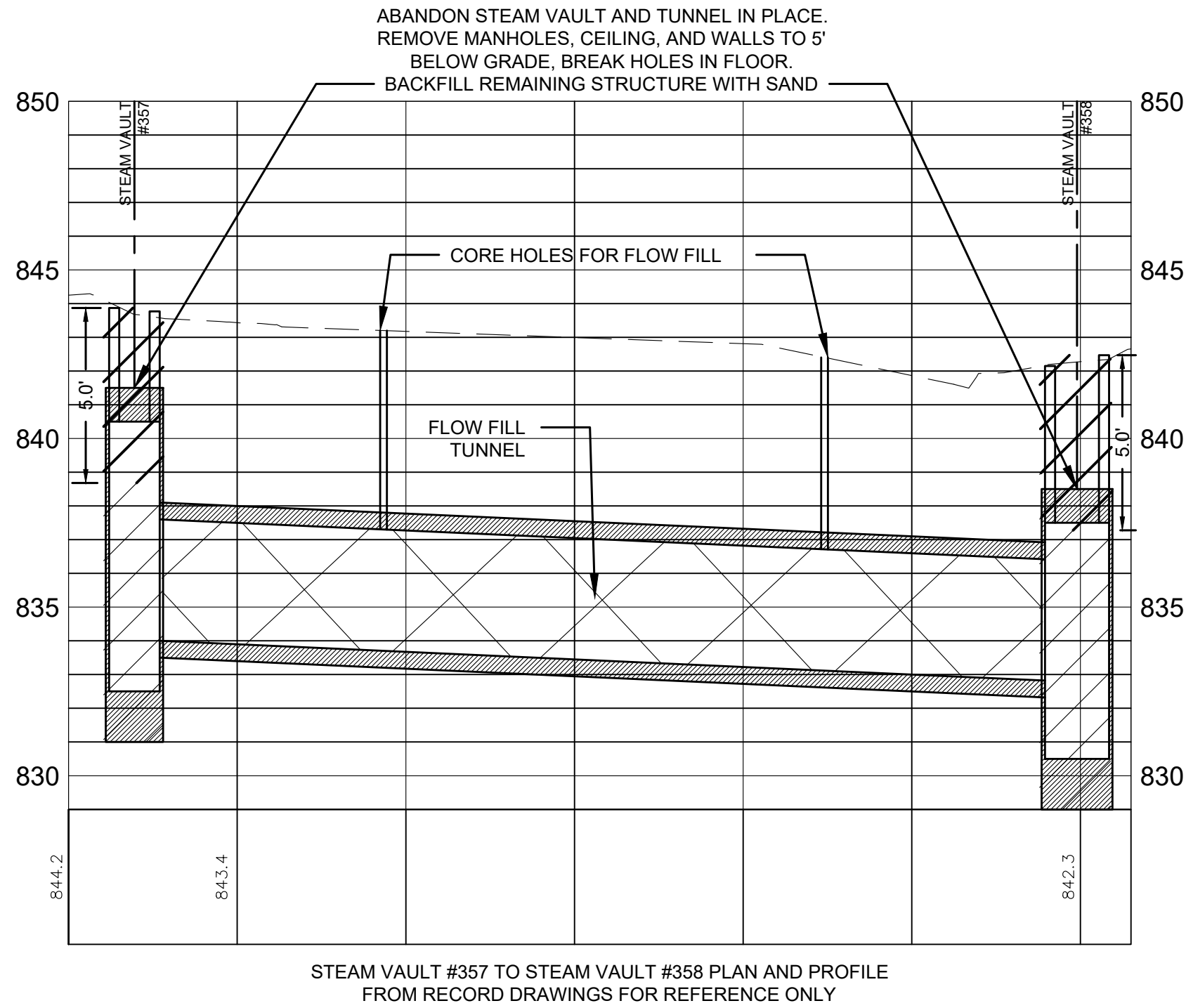
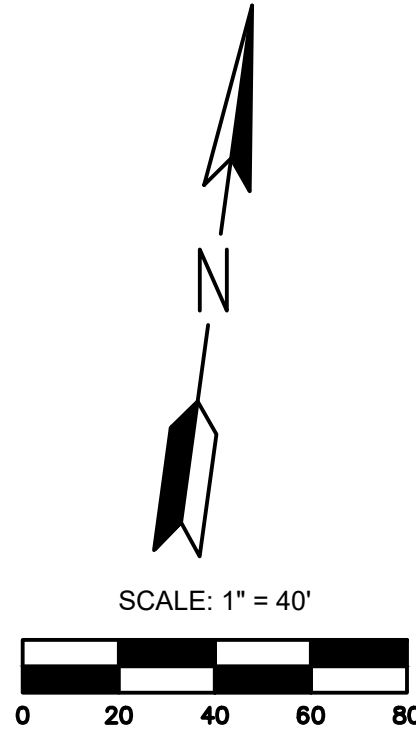
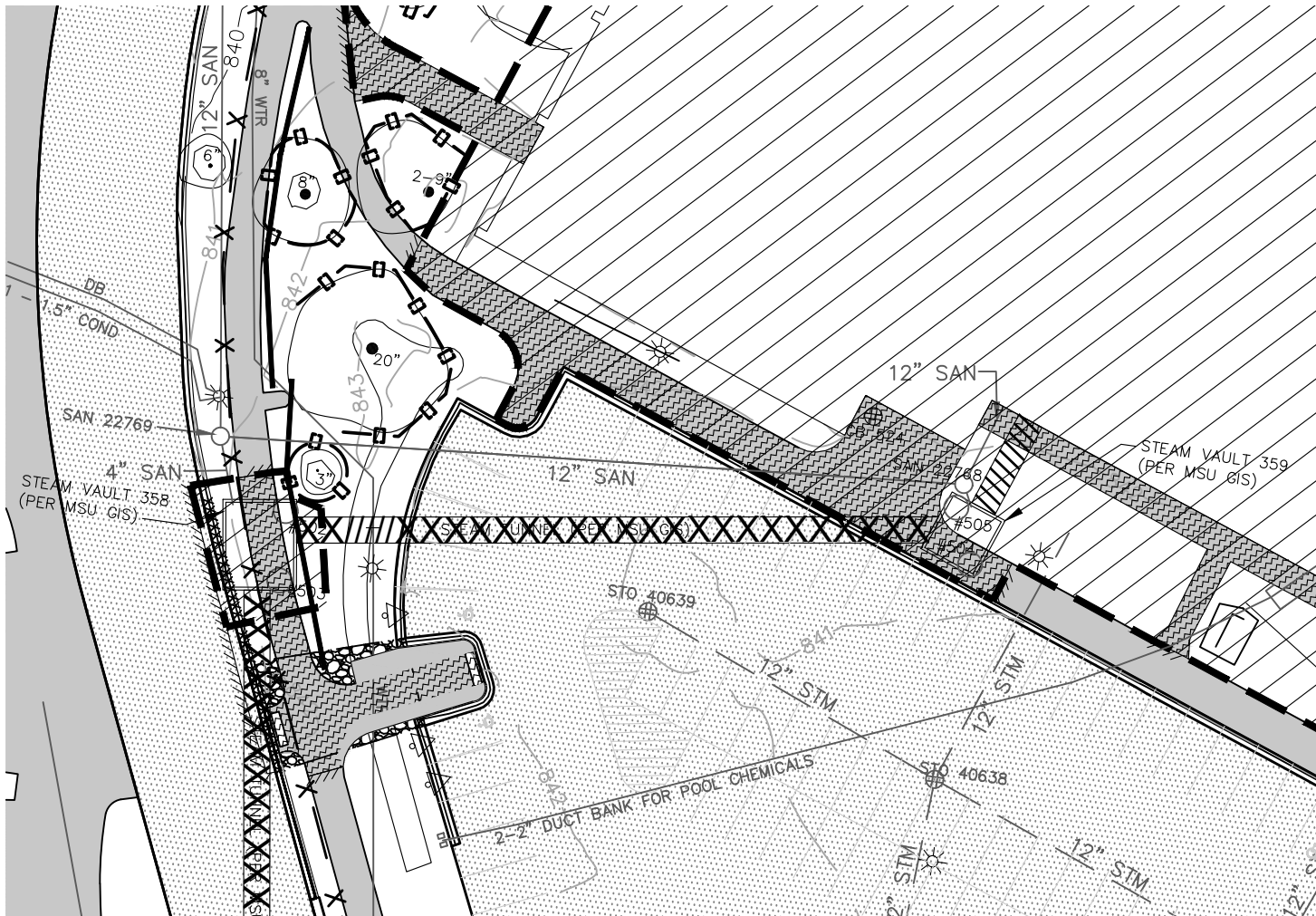
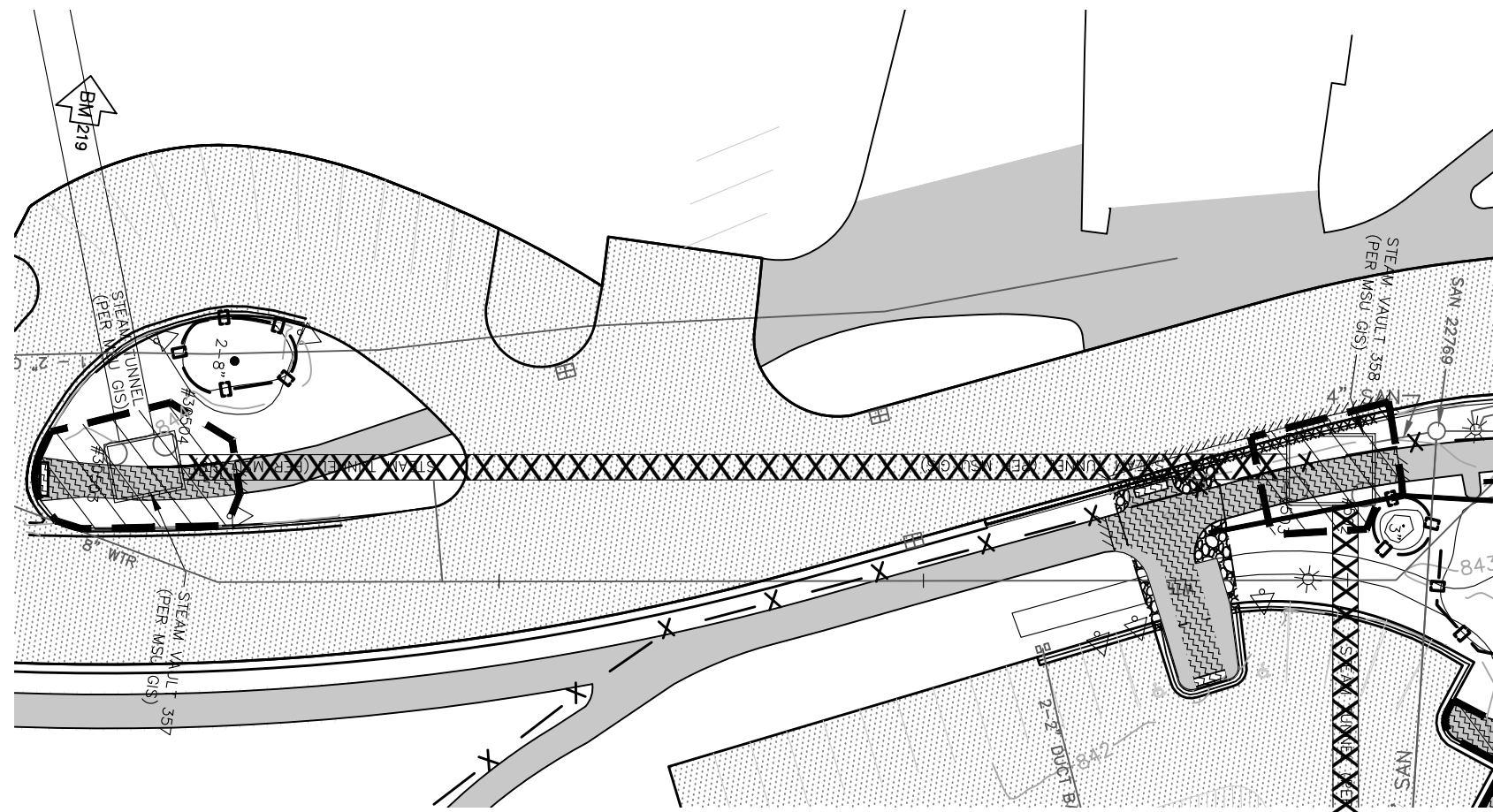
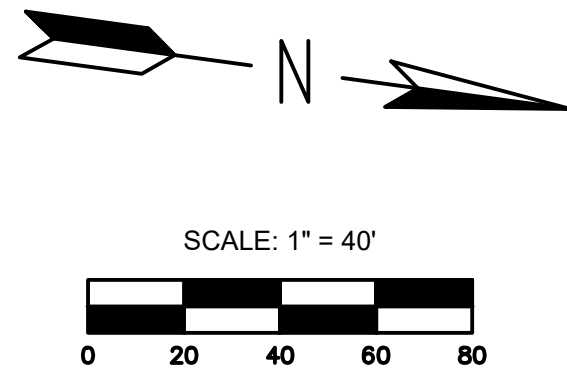
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SCALE 1" = 5'

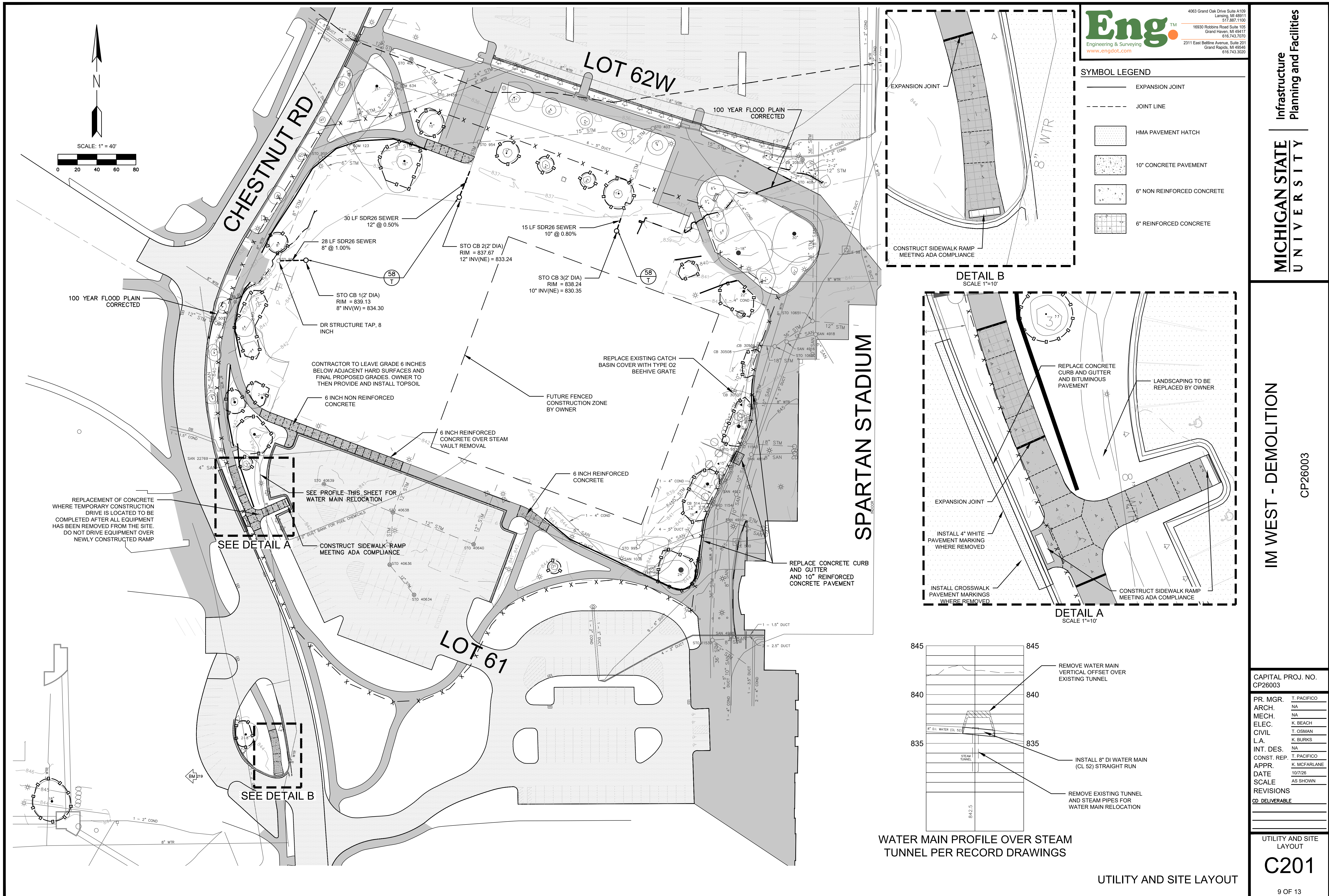
STEAM VAULT 358
SCALE 1" = 5'

STEAM VAULT 359
SCALE 1" = 5'

STEAM DEMOLITION
PLAN

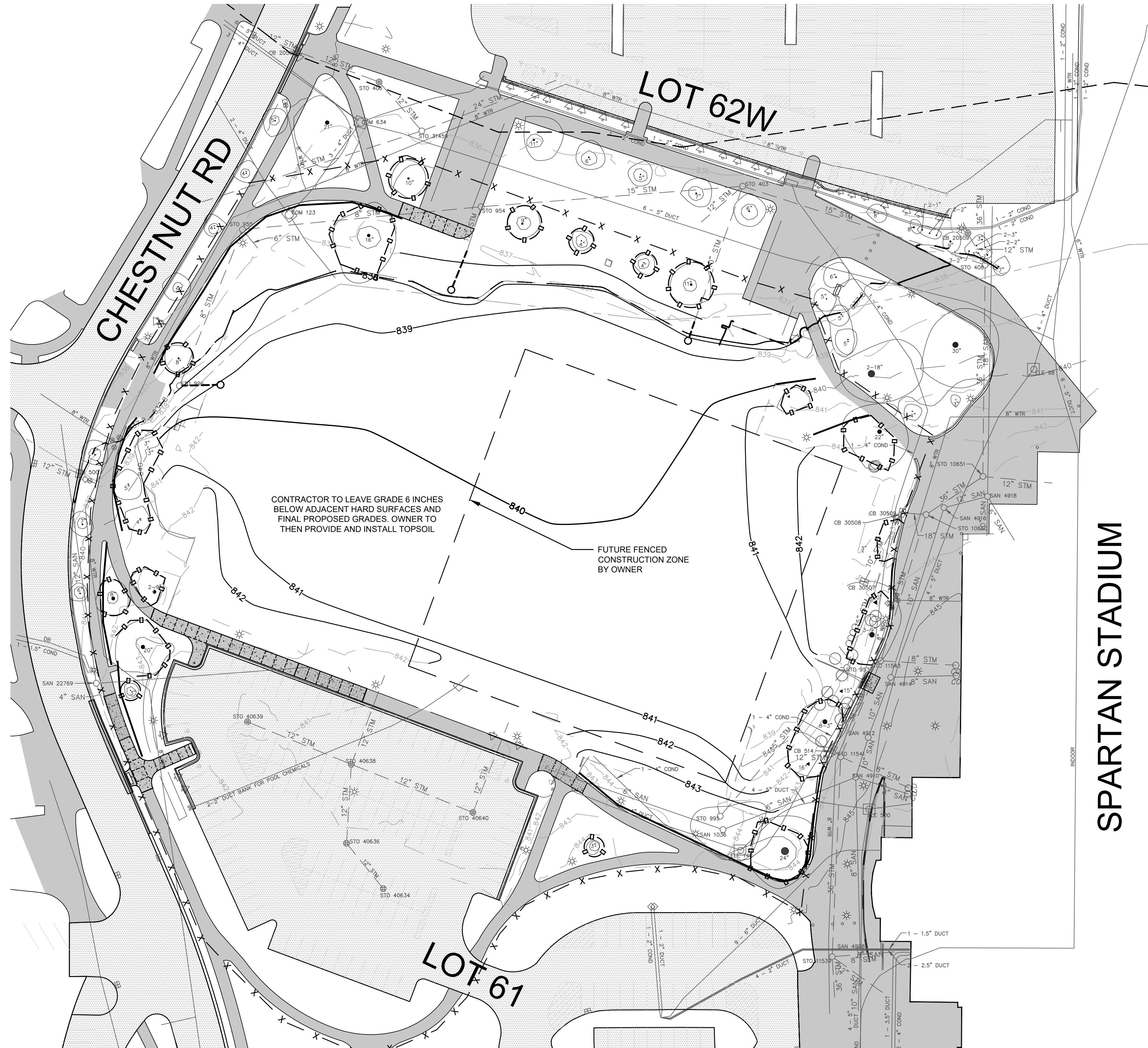
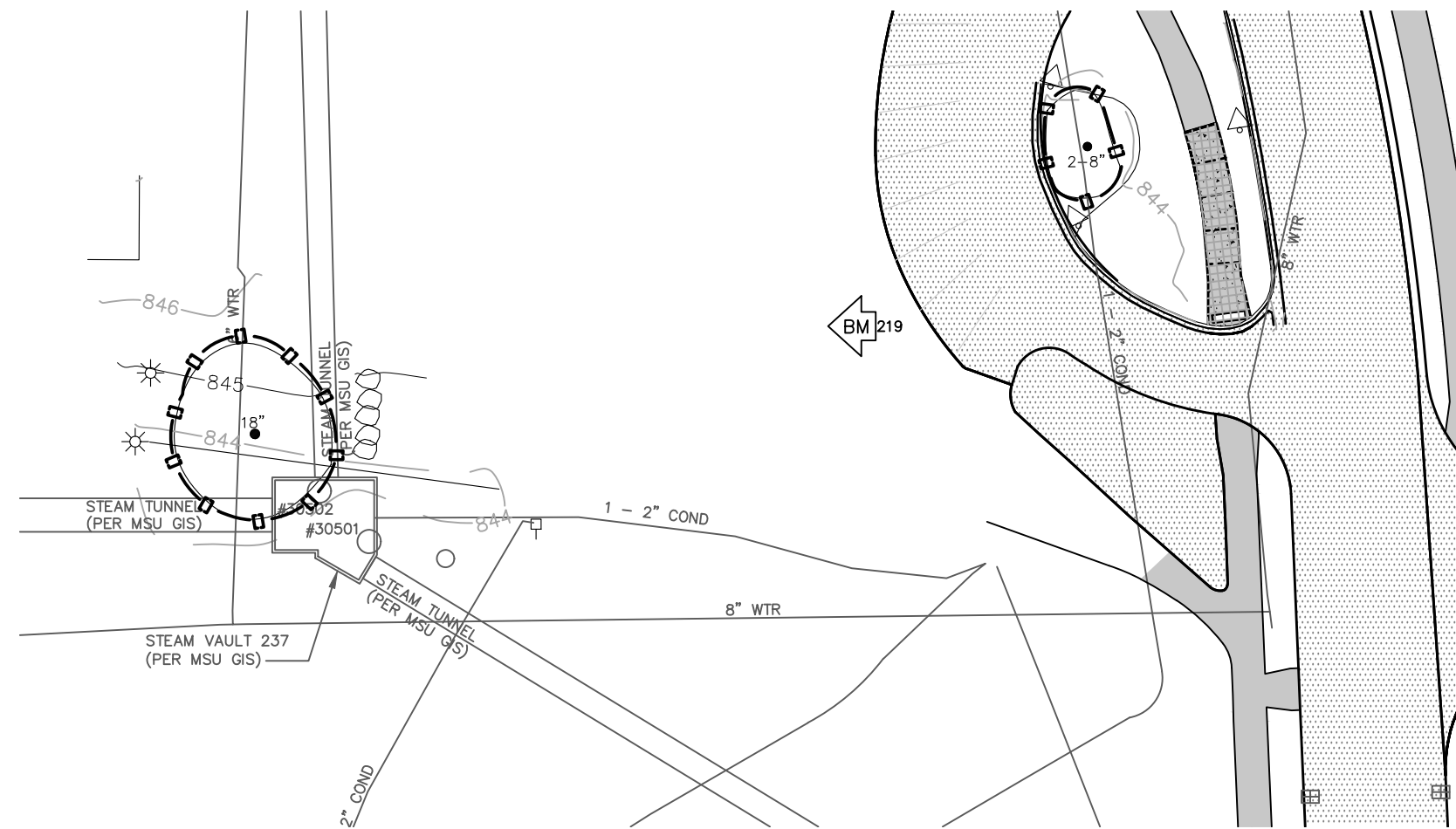
CAPITAL PROJ. NO. CP26003	
PR. MGR.	T. PACIFICO
ARCH.	NA
MECH.	NA
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CIVIL	T. OSMAN
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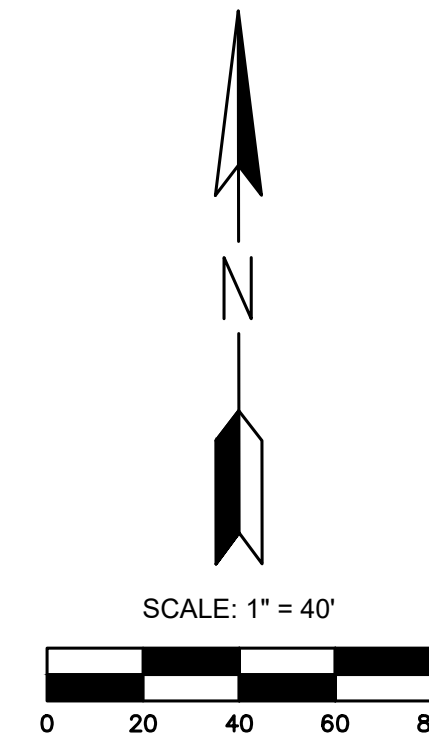


GRADING NOTES

1. EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND NOT EXACT. CALL 811 OR 1-800-362-2764.
2. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM EXCAVATION. EXISTING UTILITIES DAMAGED BY CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. FINISHED SURFACES TO BE SMOOTH AND EVEN WITH NO ABRUPT OR AWKWARD CHANGES IN GRADE.
4. ALL NEW SIDEWALKS AND PAVEMENTS SHALL BE PLACED AT AN ELEVATION THAT PROVIDES POSITIVE DRAINAGE AND CONSISTENT SLOPES. ENSURE NO LOW SPOTS ARE CREATED. NEW WALKS SHALL MEET EXISTING WALKS FLUSH AT EXISTING GRADE. NOTIFY ENGINEER IF GRADES ON PLAN CANNOT BE MET TO ENSURE POSITIVE DRAINAGE.
5. ALL PROPOSED GRADES SHALL BE STAKED BY A LICENSED SURVEYOR AND FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
6. MATCH ADJACENT PAVEMENT GRADES WHERE NEW PAVEMENT ABUTS EXISTING PAVING.

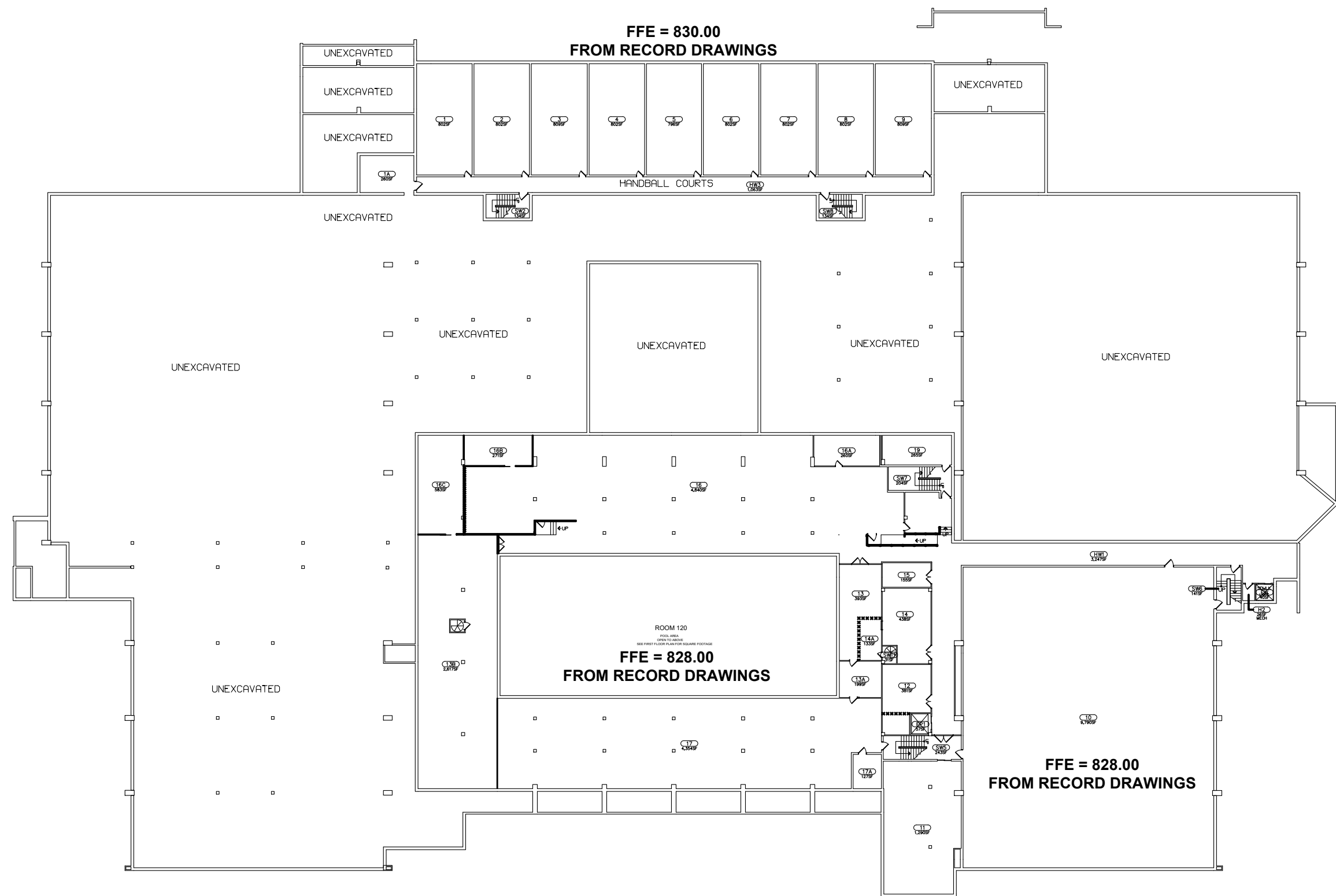


SPARTAN STADIUM

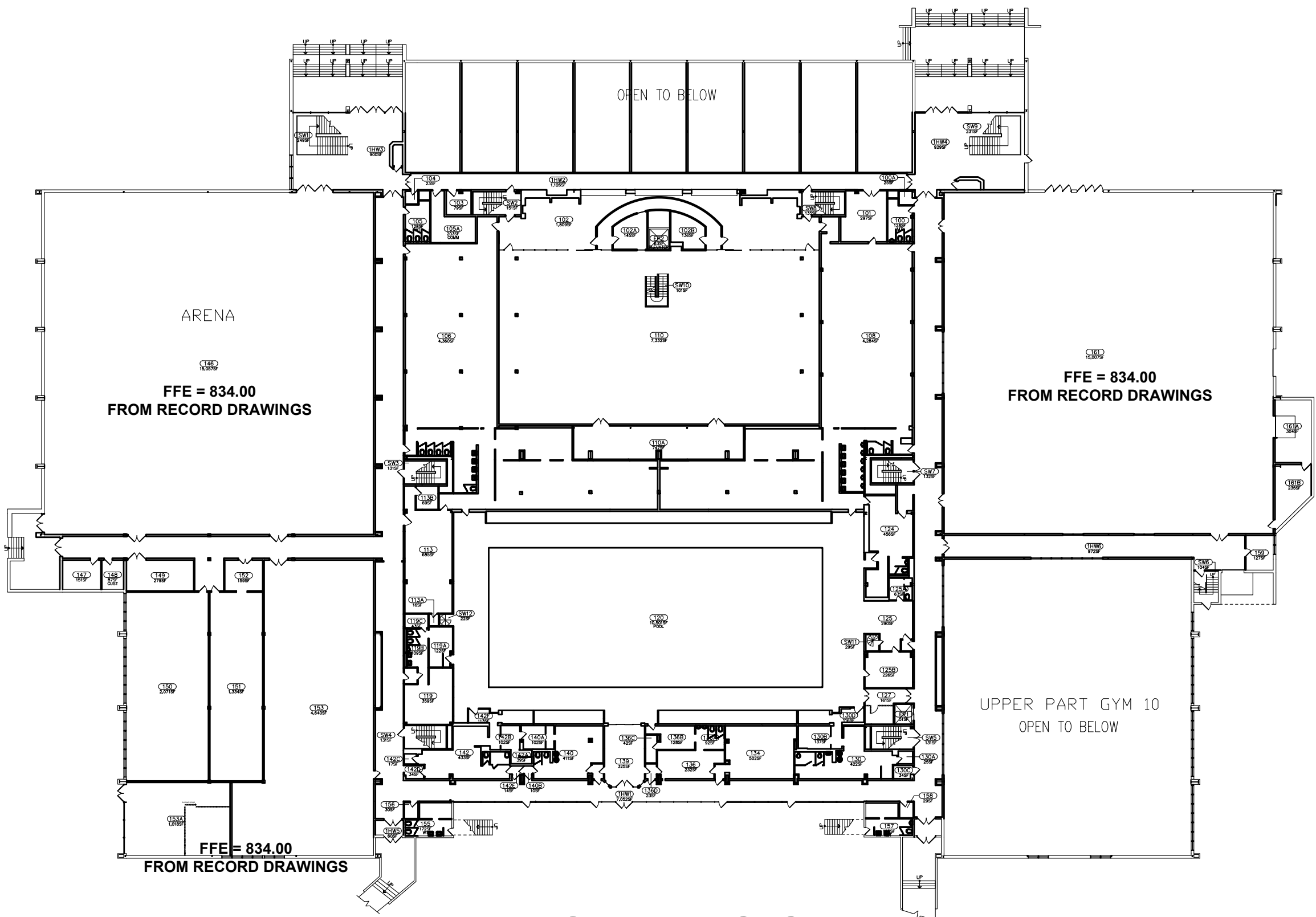


GRADING PLAN

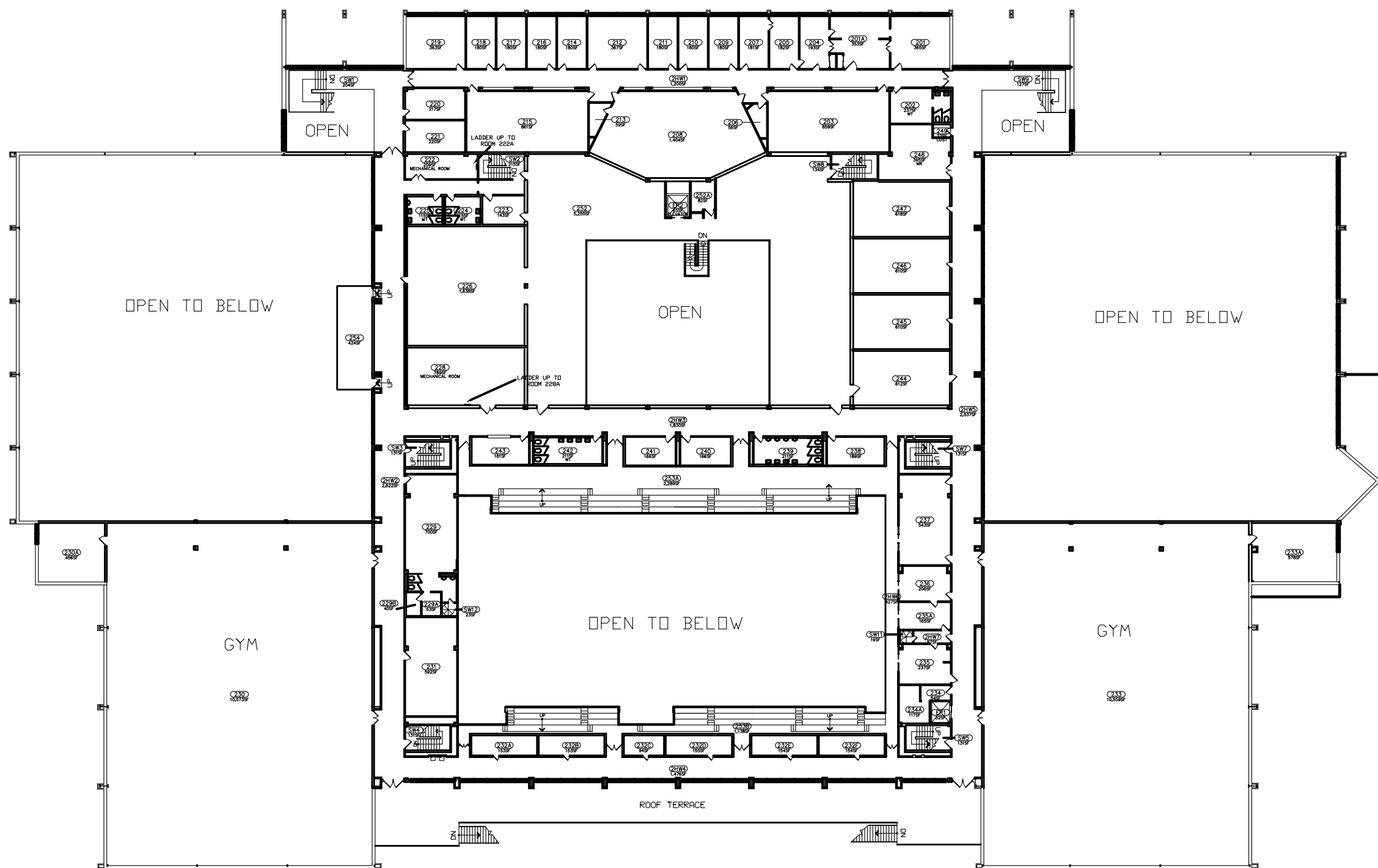
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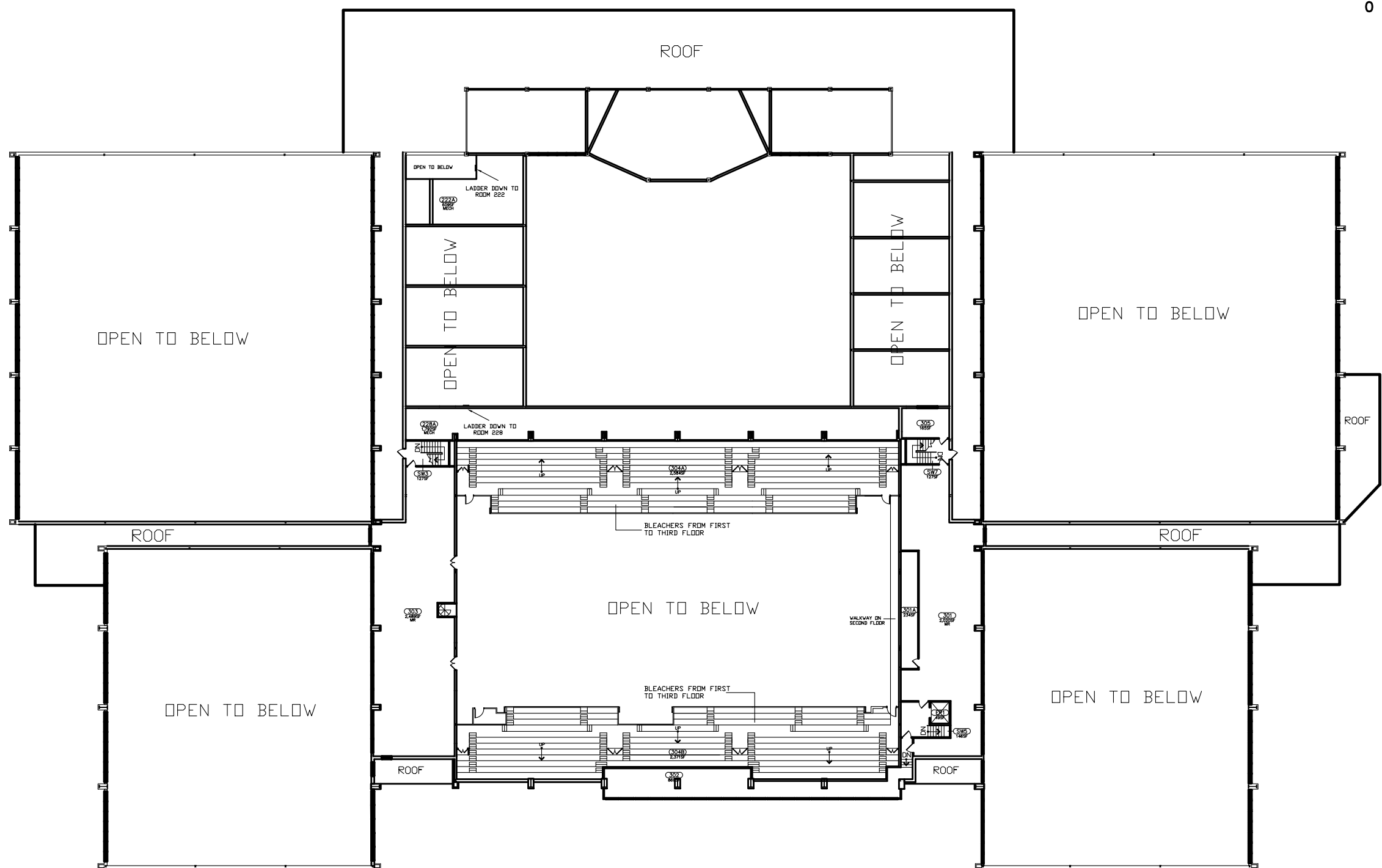
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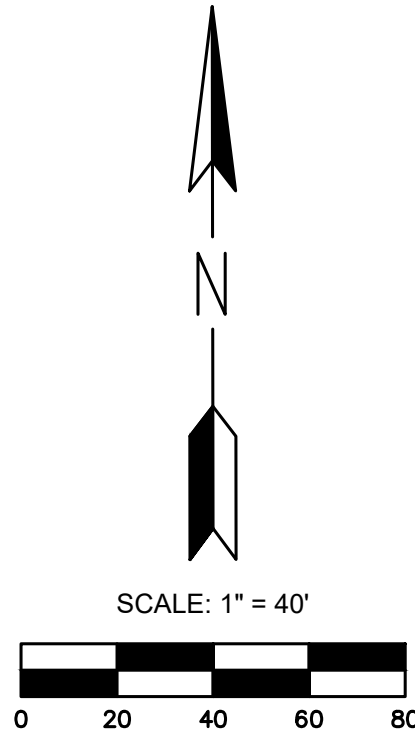
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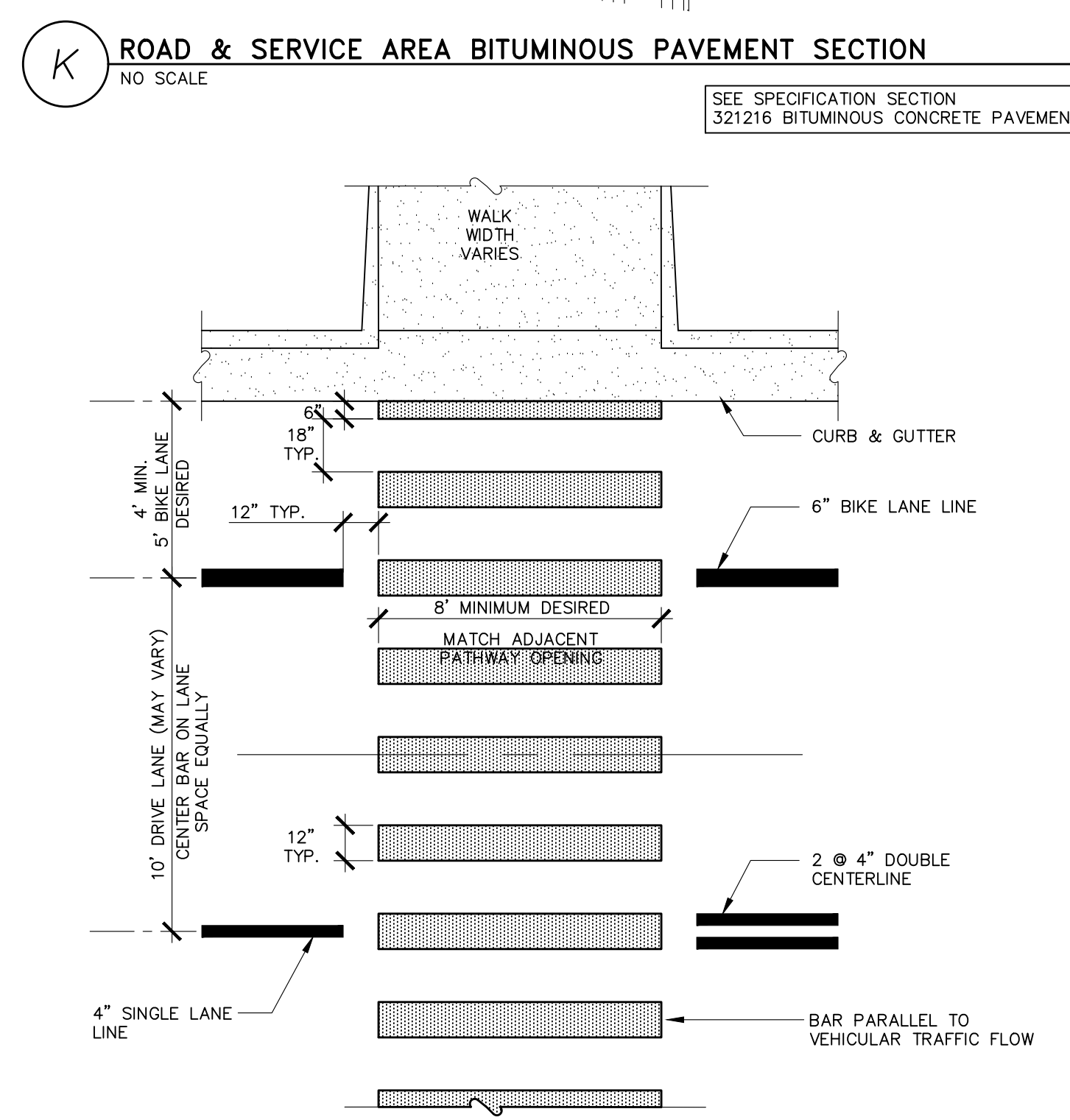
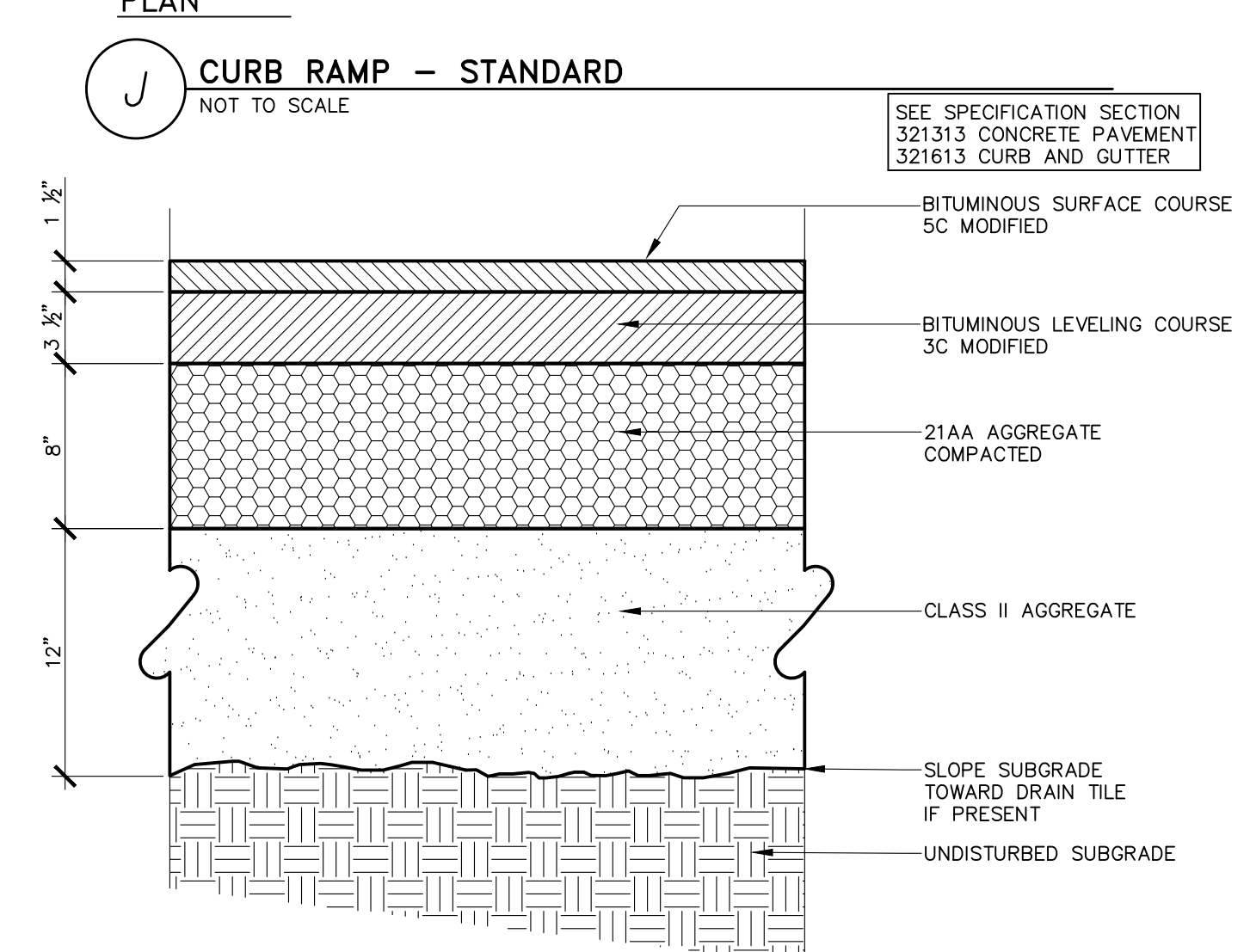
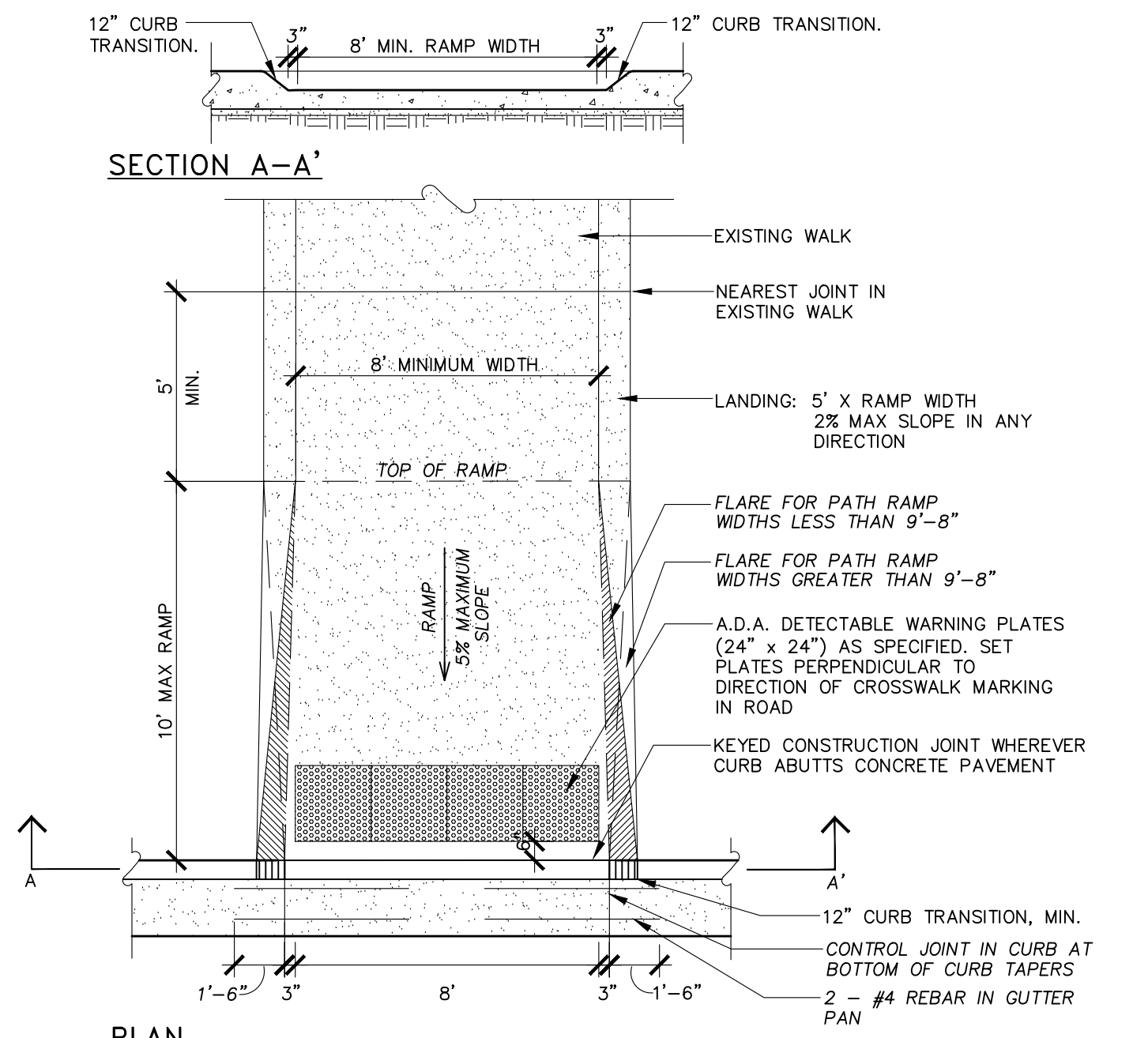
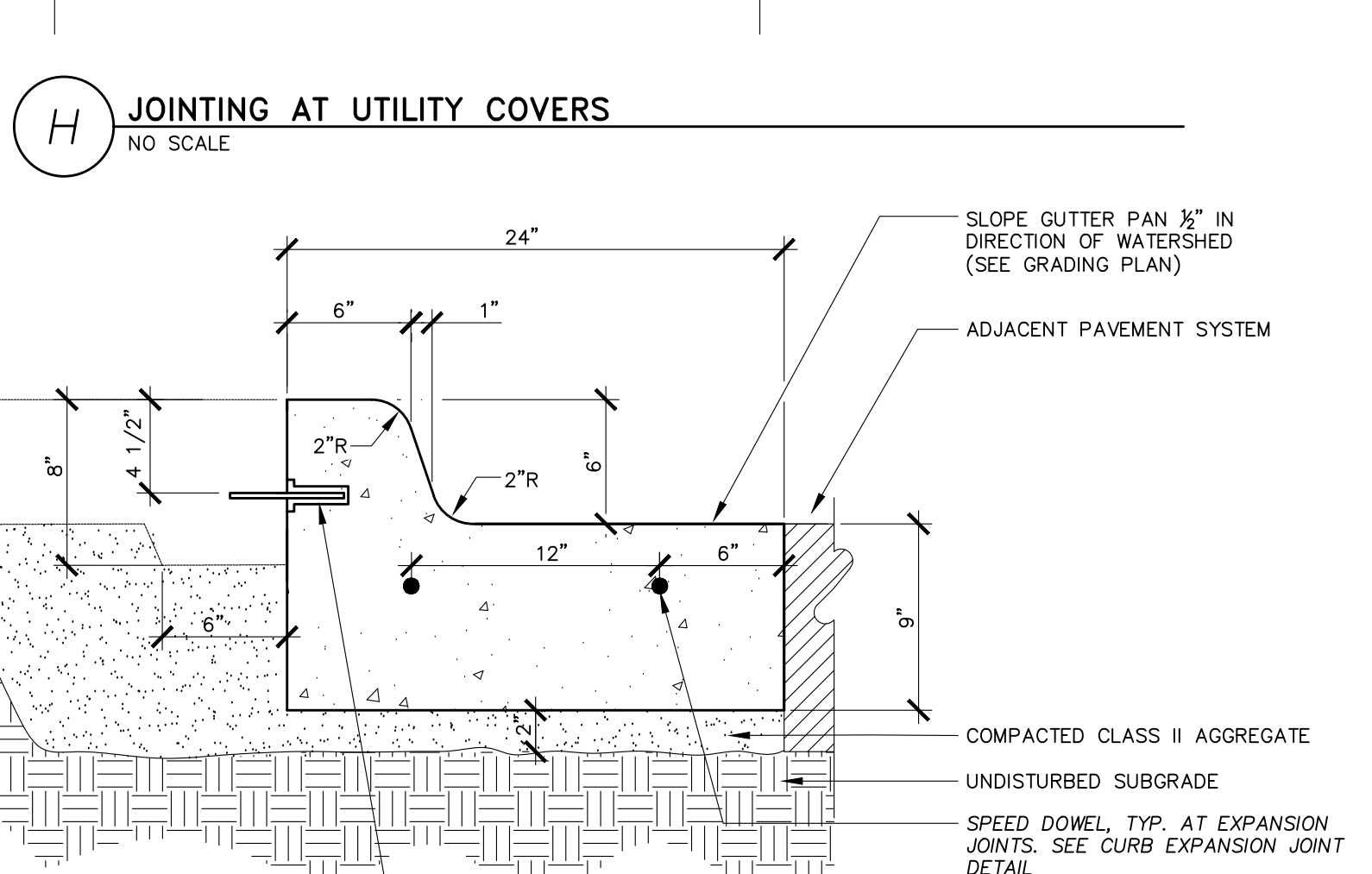
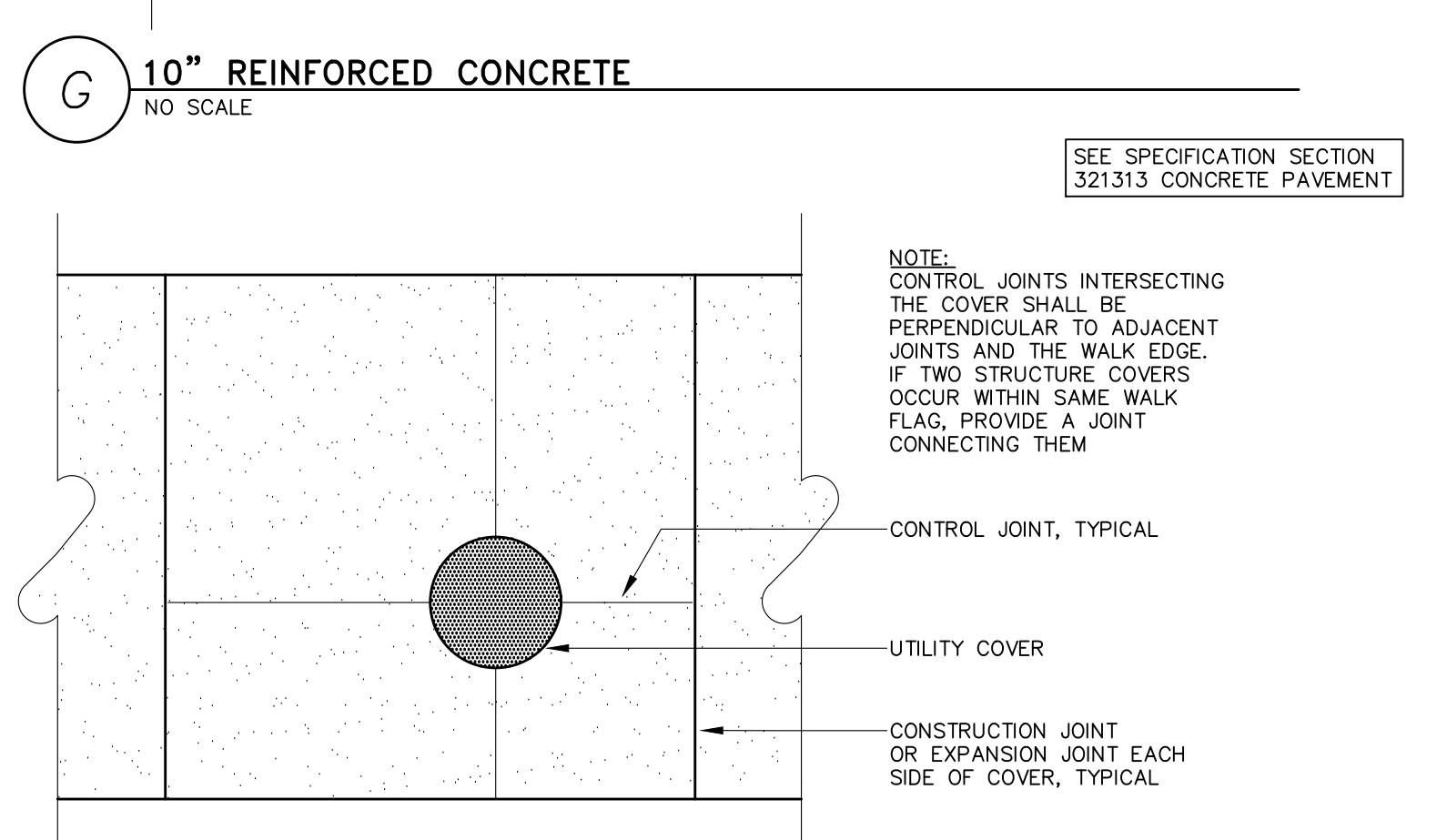
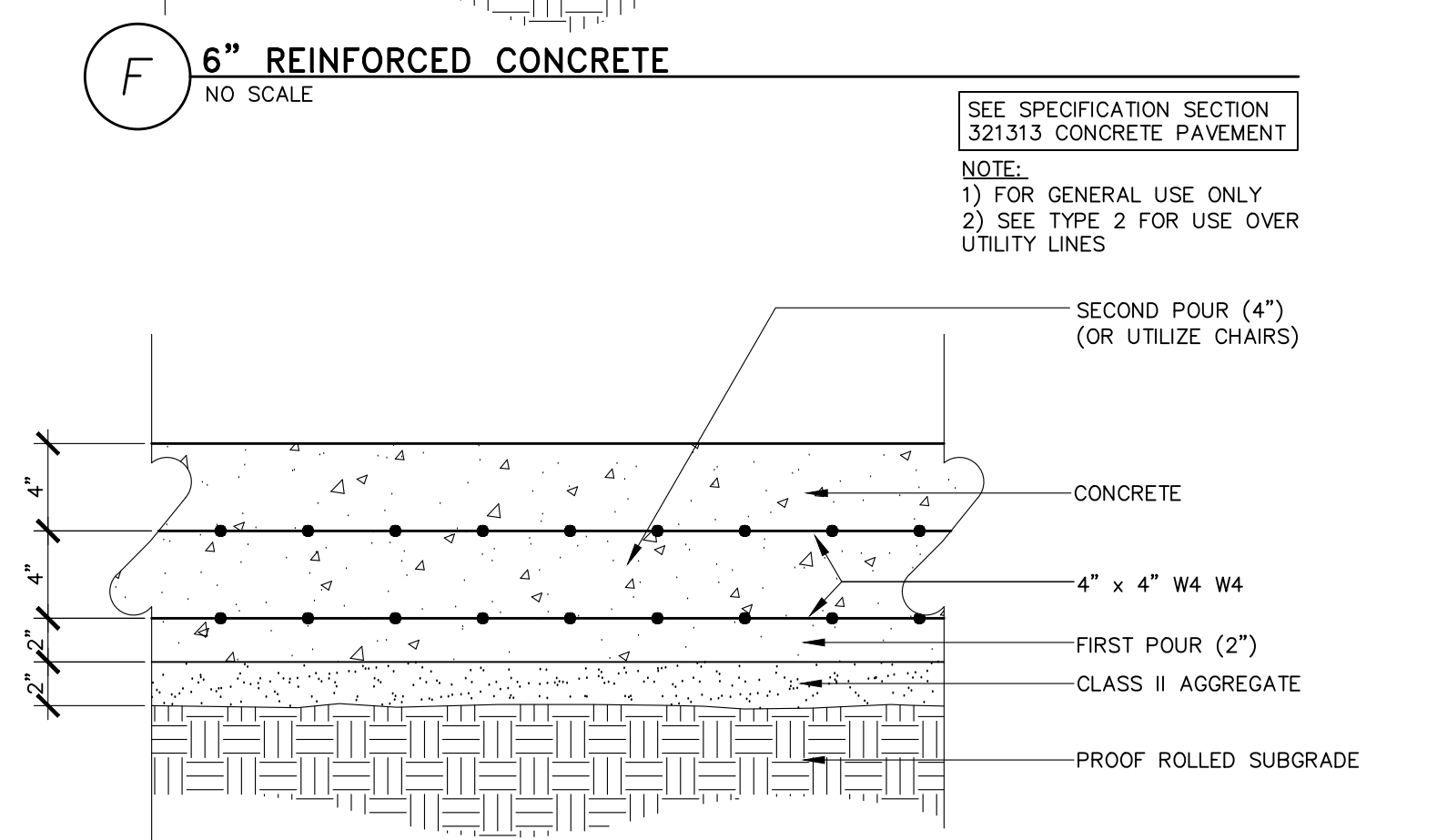
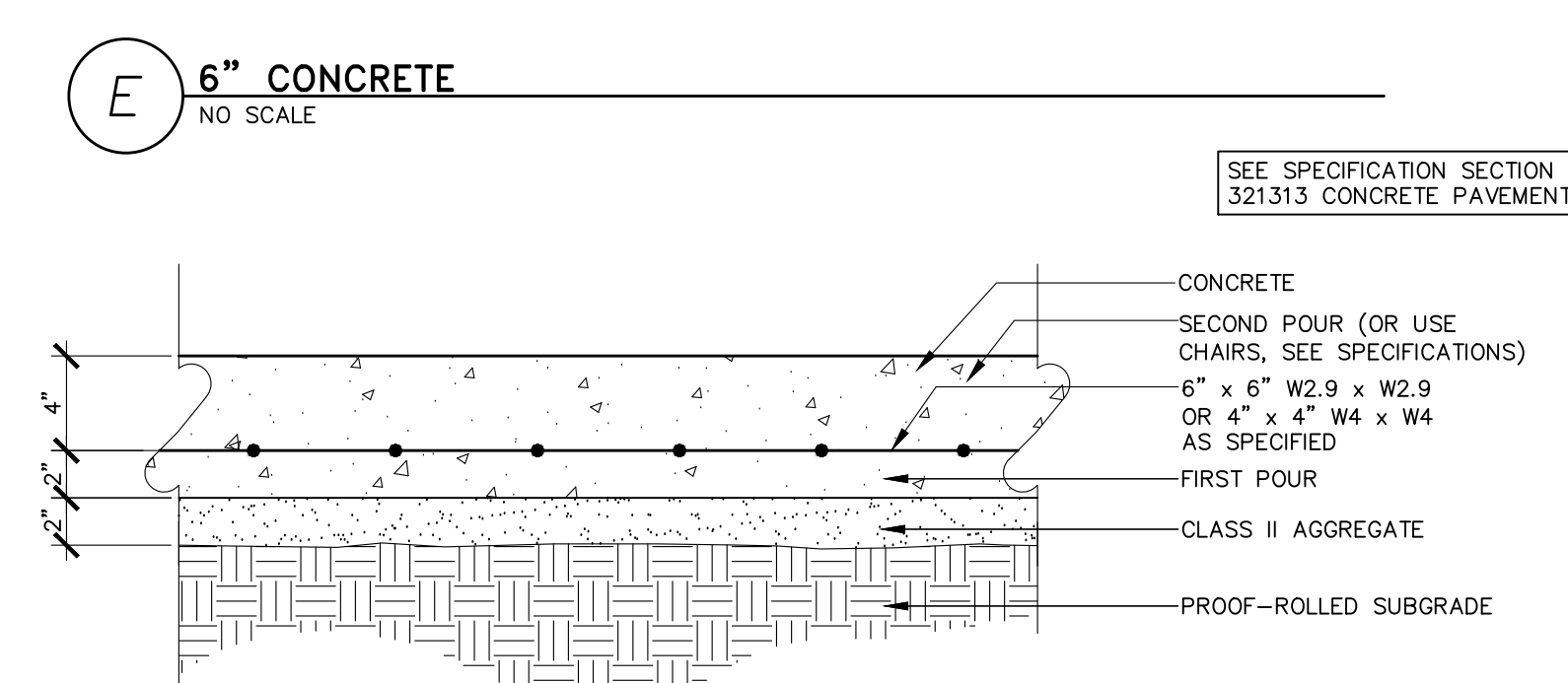
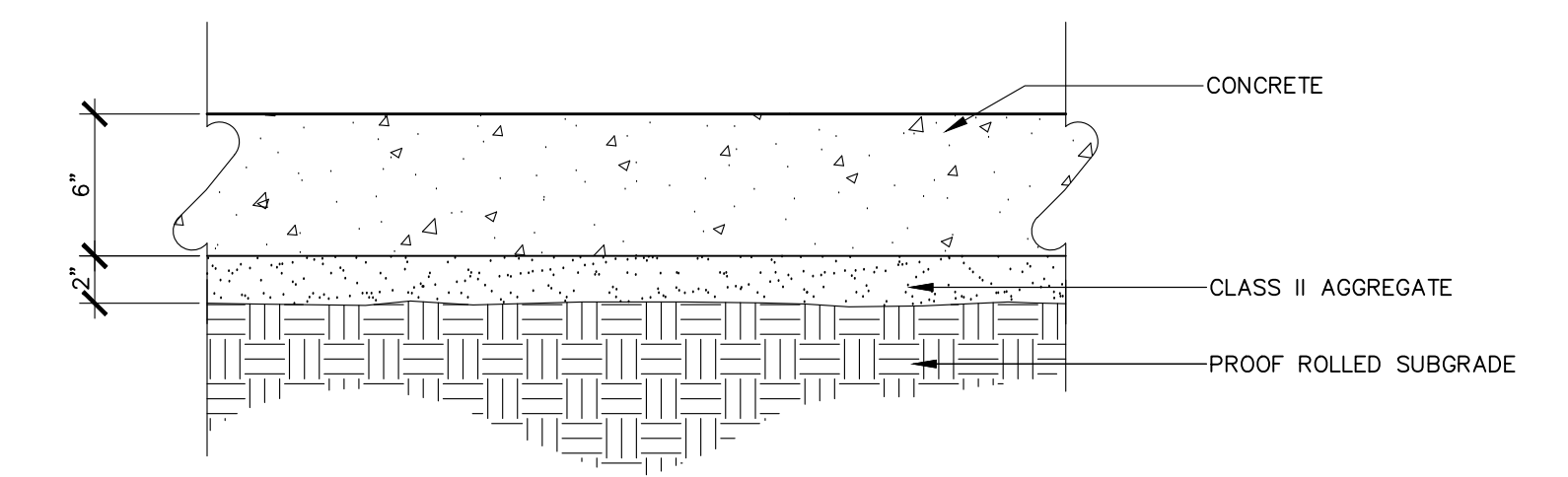
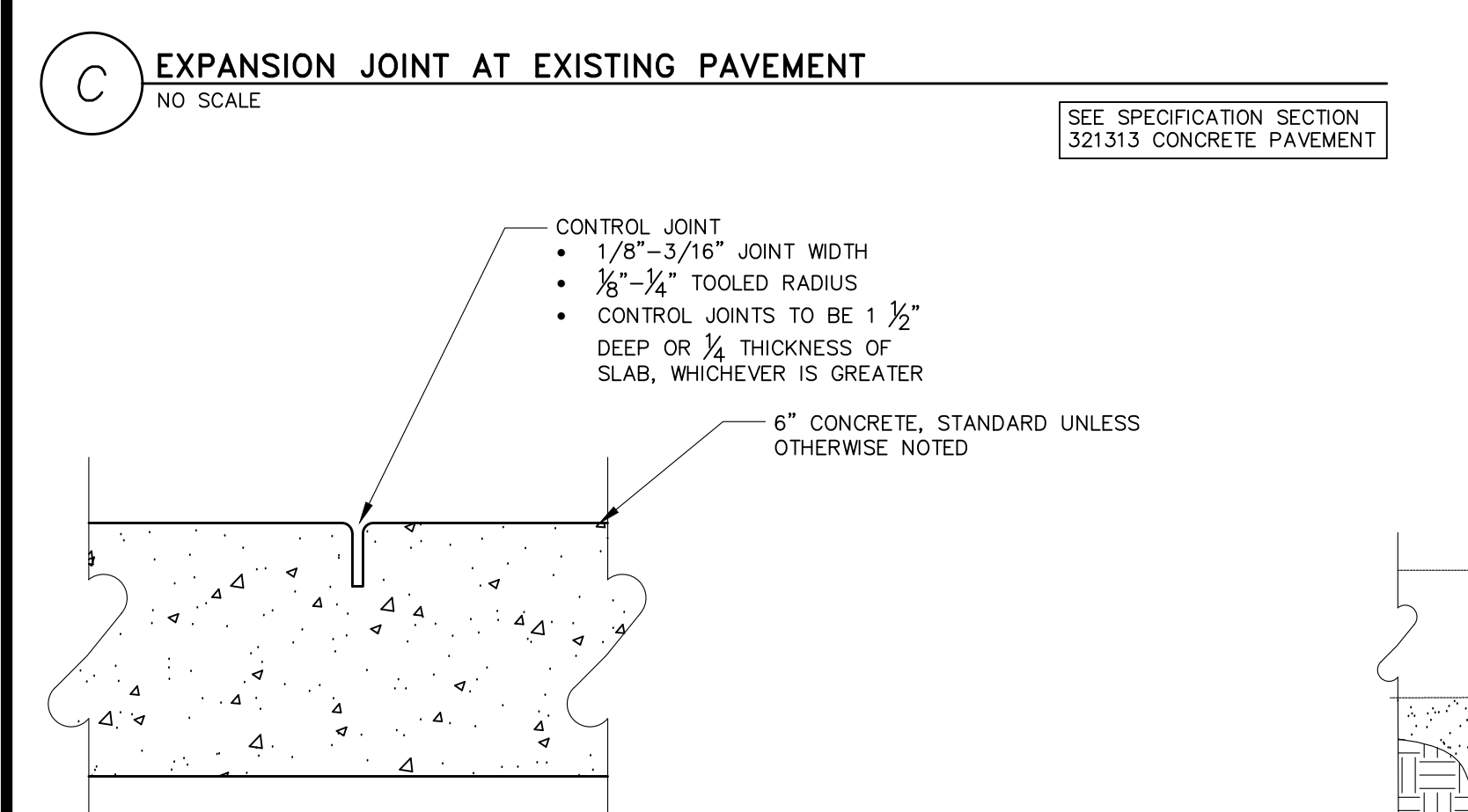
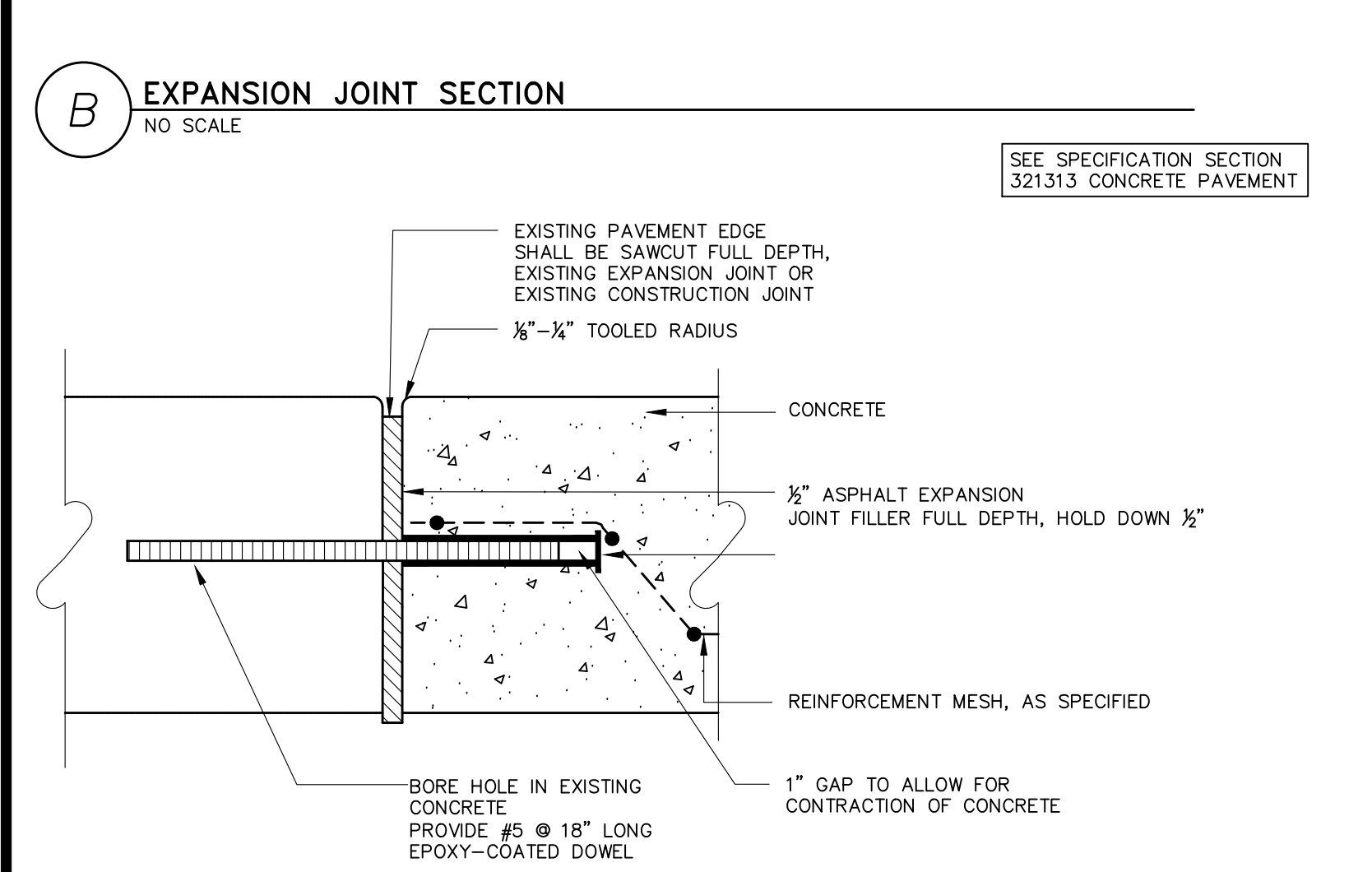
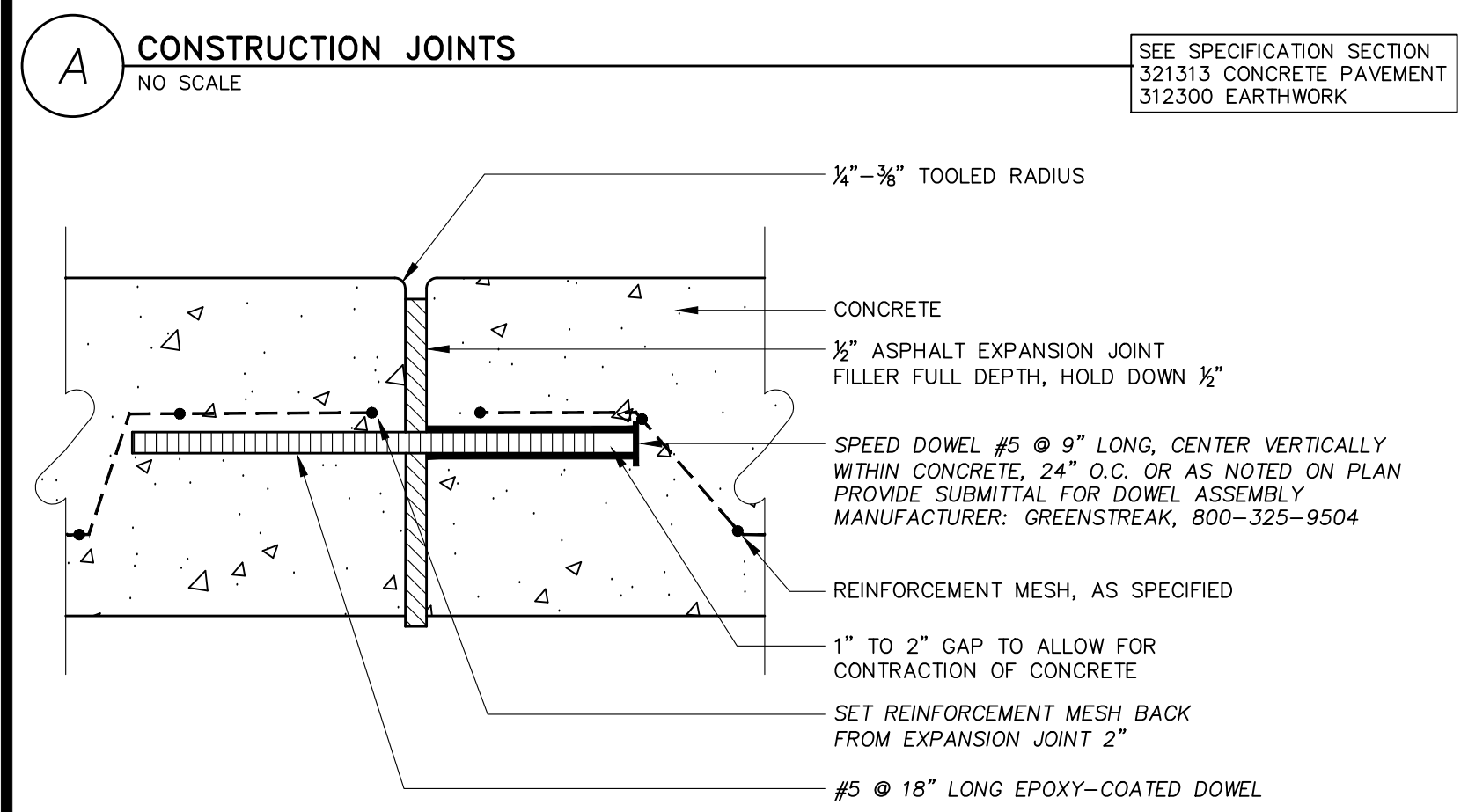
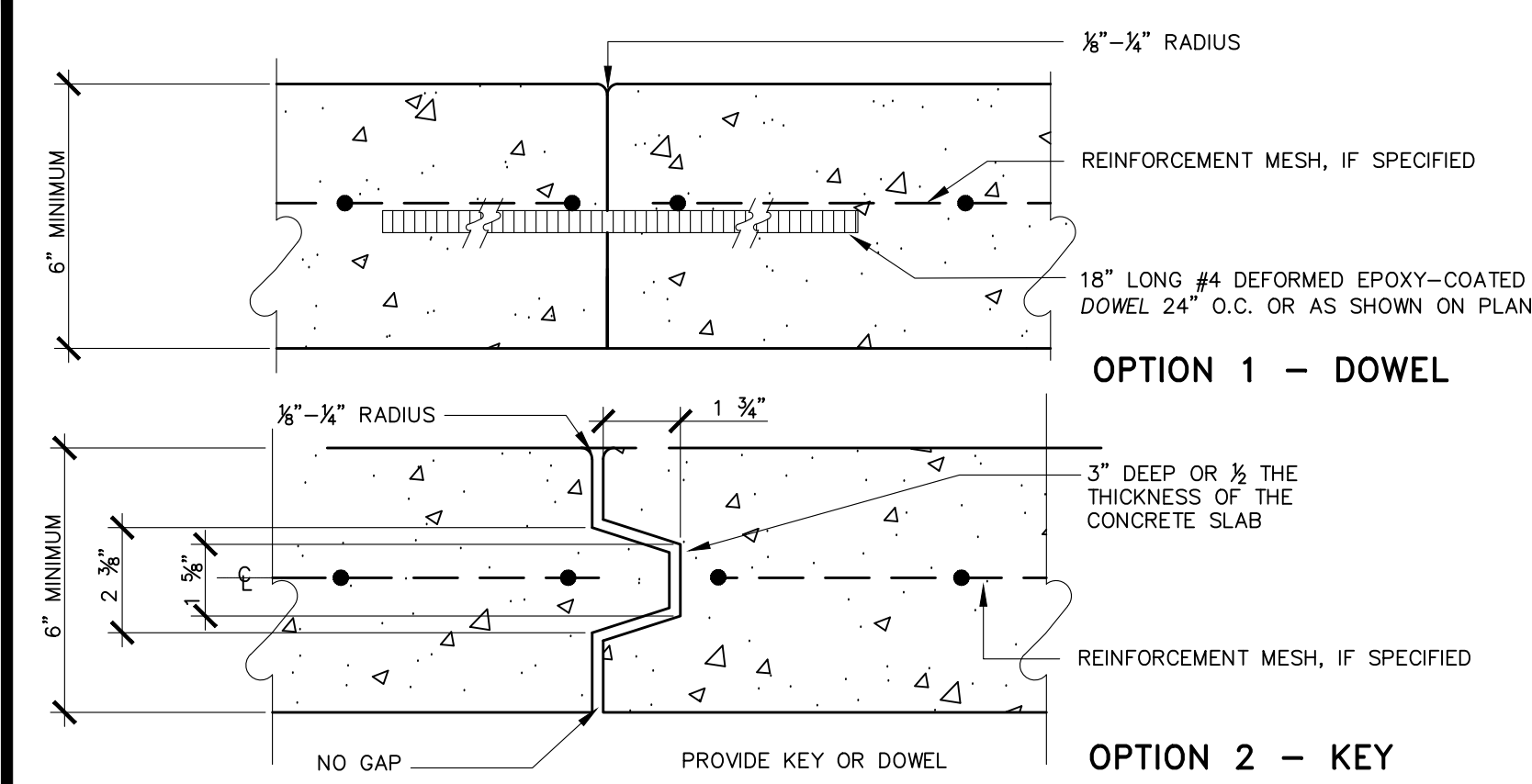


SECOND FLOOR



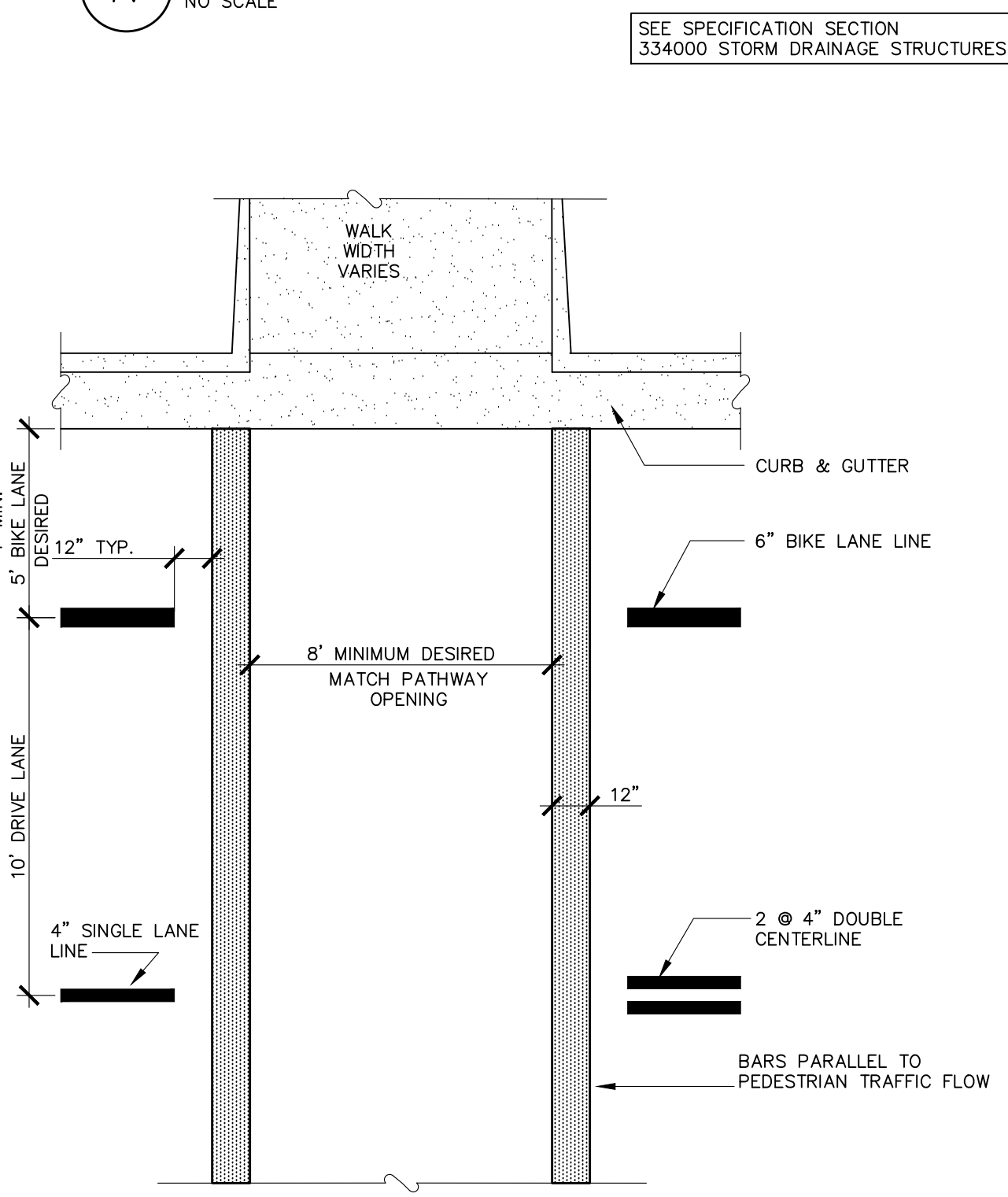
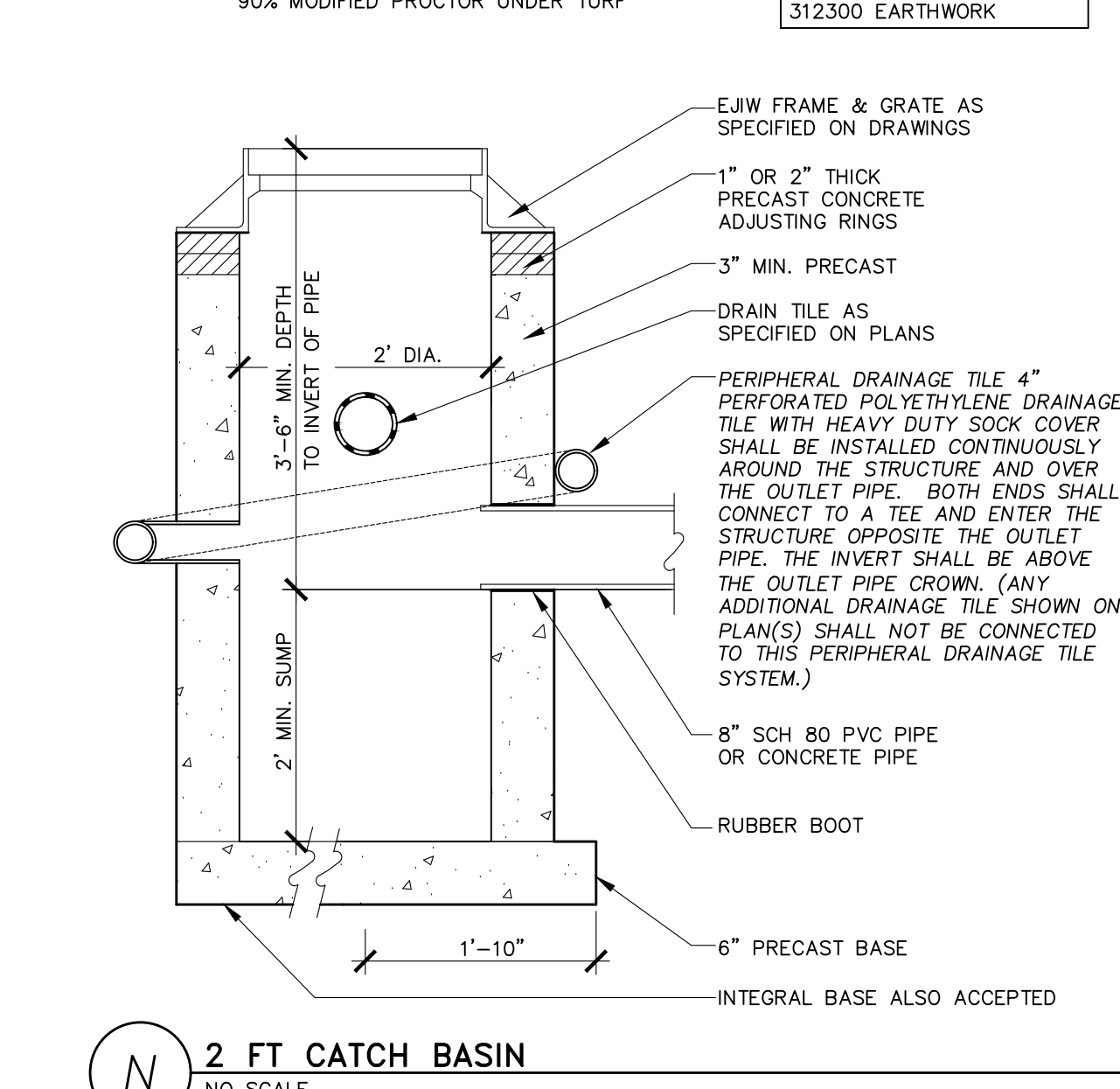
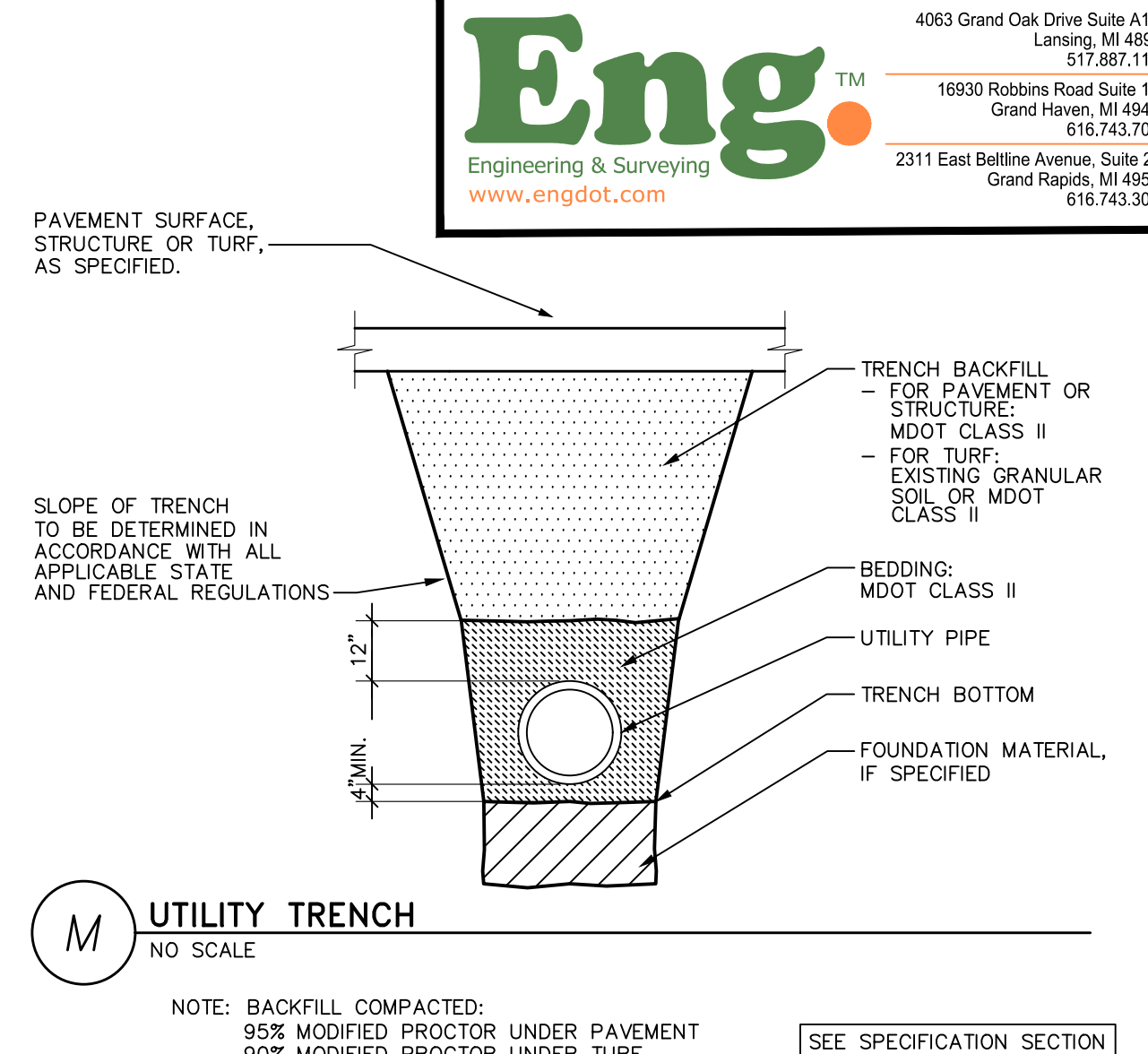
THIRD FLOOR





"ZEBRA"
FOR SIGNAL INTERSECTIONS, MID-BLOCK CROSSWALKS AND AS DETERMINED BY MSU TRAFFIC ENGINEER

"STANDARD"
FOR NON-SIGNAL ROAD INTERSECTIONS DETERMINED BY MSU TRAFFIC ENGINEER



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Infrastructure Planning and Facilities

MICHIGAN STATE UNIVERSITY

IM WEST - DEMOLITION

CP26003

CAPITAL PROJ. NO. CP26003

PR. MGR.	T. PACIFIC
ARCH.	NA
MECH.	NA
ELEC.	K. BEACH
CIVIL	T. OSMAN
L.A.	K. BURKS
INT. DES.	NA
CONST. REP.	T. PACIFIC
APPR.	K. MCFARLANE
DATE	10/7/26
SCALE	NA
REVISIONS	
CD DELIVERABLE	

DETAILS

C501

12 OF 13

IM WEST - DEMOLITION

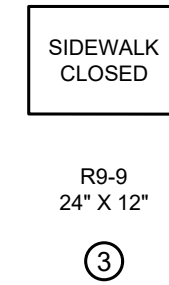
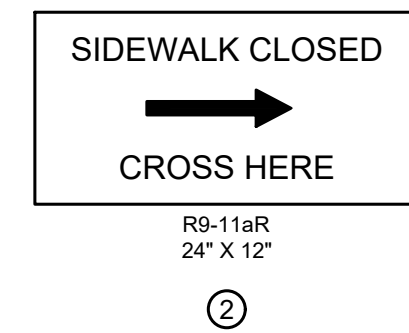
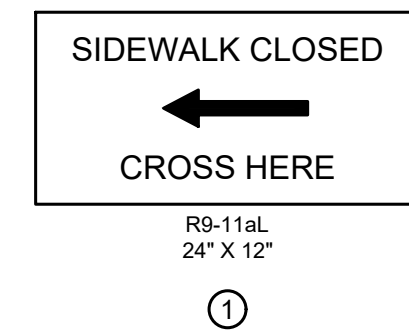
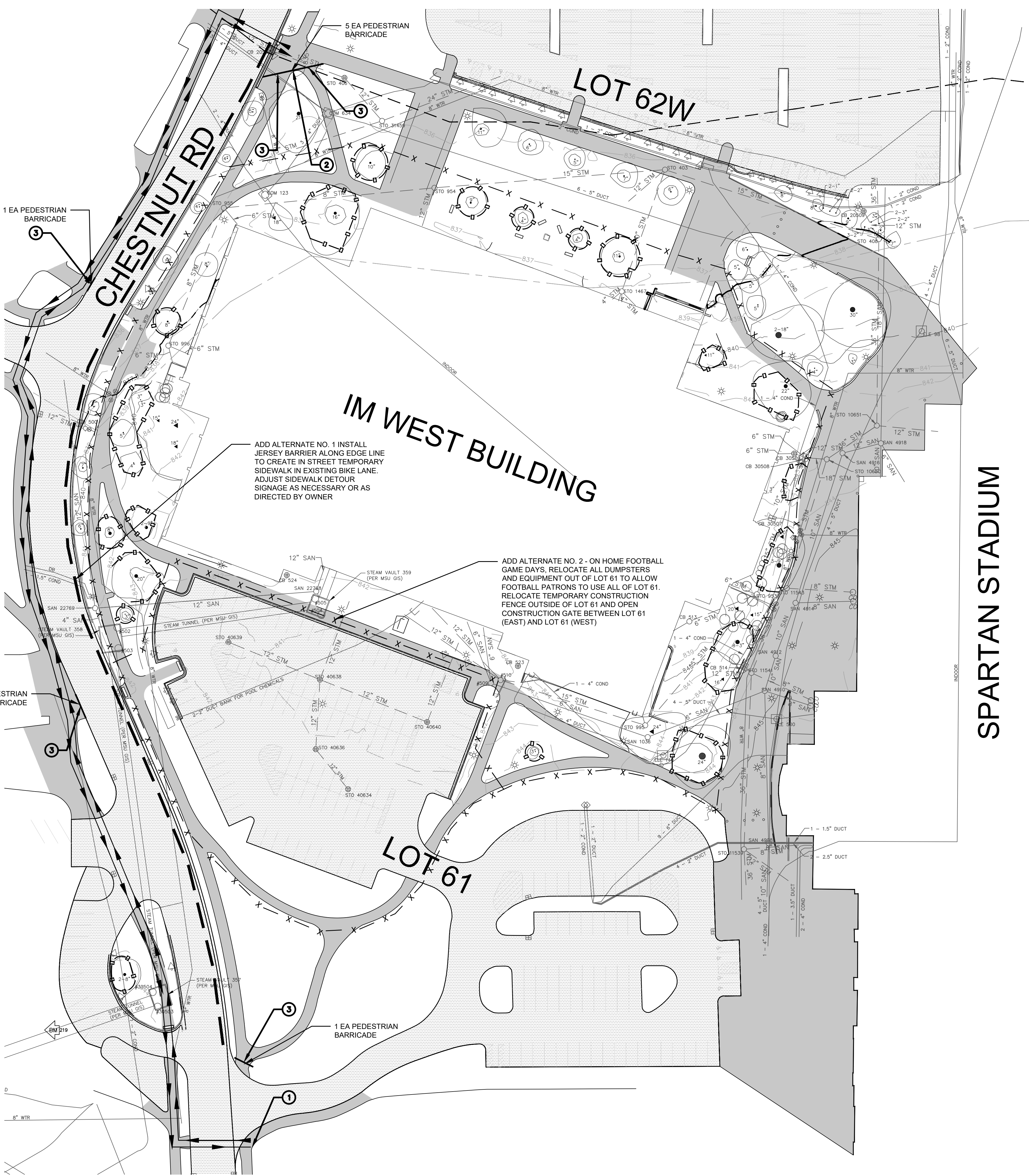
CP26003

CAPITAL PROJ. NO. CP26003	
PR. MGR.	T. PACIFIC
ARCH.	NA
MECH.	NA
ELEC.	K. BEACH
CIVIL	T. OSMAN
L.A.	K. BURKS
INT. DES.	NA
CONST. REP.	T. PACIFIC
APPR.	K. MCFARLANE
DATE	10/7/26
SCALE	AS SHOWN
REVISIONS	
CD DELIVERABLE	

PEDESTRAIN DETOUR
AND ADD ALTERNATES

C502

SPARTAN STADIUM



PEDESTRAIN DETOUR AND ADD
ALTERNATES