

PUBLIC UTILITIES

AT&T TELEPHONE
 337 N. ABBOTT, RM. 201
 EAST LANSING, MI 48823
 517.337.3660

CONSUMERS ENERGY GAS
 530 W. WILLOW ST. ELECTRIC
 P.O. BOX 30162
 LANSING, MI 48909
 517.373.6100

COMCAST CABLE TV
 1070 TROWBRIDGE ROAD
 EAST LANSING, MI 48823
 517.332.1012

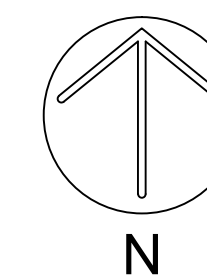
MERIDIAN TOWNSHIP WATER MAINS
 5151 MARSH RD. SANITARY SEWER
 OKEMOS, MI 48864 PATHWAYS
 517.853.4440

WOLVERINE PIPE LINE PETROLEUM PIPELINE
 8105 VALLEYWOOD LANE
 PORTAGE, MI 49024-5251
 231.323.2491

INGHAM COUNTY DRAIN DRAINS
 COMMISSIONER STORM SEWER
 707 BUHL ST.
 MASON, MI 48854
 517.676.8395

INGHAM COUNTY ROAD DEPT PUBLIC ROADS AND
 301 BUSH ST. RIGHTS OF WAY
 MASON, MI 48854
 517.676.9722

**MSU TO LAKE LANSING CONNECTOR TRAIL, PHASE II
 CONSTRUCTION PLANS
 for
 MERIDIAN TOWNSHIP
 INGHAM COUNTY, MICHIGAN**



Call 811 before you dig.

SOIL EROSION & SEDIMENTATION CONTROL NOTES

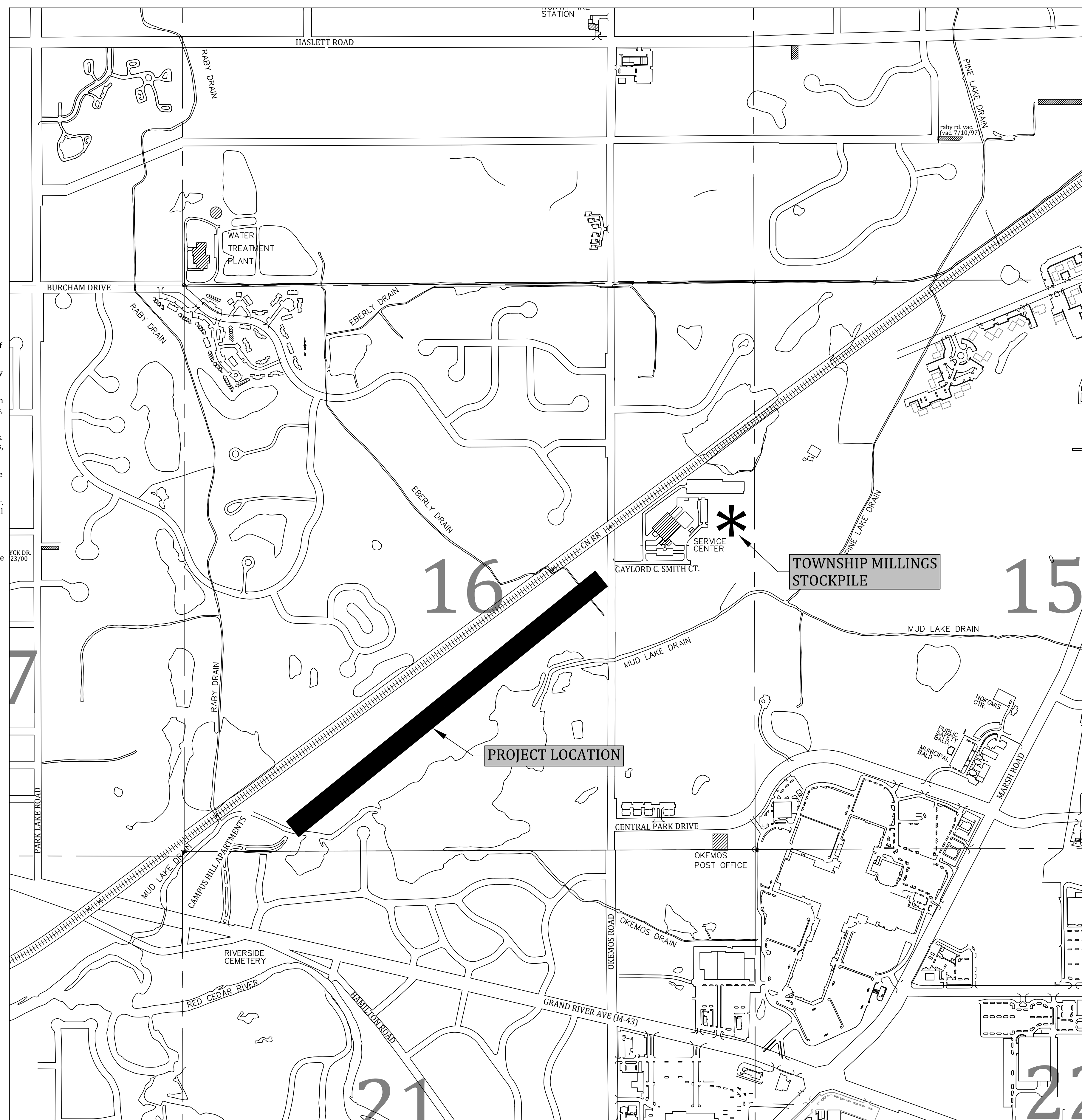
- All soil erosion and sediment control (SESC) work shall conform to the standards and specifications of the Ingham County Drain Commissioner's Office and Meridian Township.
- Daily inspections shall be made by the contractor for effectiveness of SESC measures. Any necessary repairs shall be performed without delay.
- Erosion of any sediment from work on the site shall be contained on-site and not allowed to collect on any off-site areas or in waterways. Waterways include both natural and man-made open ditches, streams, storm drains, lakes, ponds, and wetlands.
- The Contractor shall apply temporary SESC measures when required and as directed on these plans. The Contractor shall remove temporary measures as soon as permanent stabilization of slopes, ditches, and other changes have been established.
- Staging the work shall be done by the Contractor as directed in these plans and as required to ensure progressive stabilization of disturbed earth.
- Soil erosion control practice shall be established in the early stages of construction by the Contractor. Sedimentation control practices shall be applied as a perimeter defense against any transporting of soil off the site.
- The Contractor shall preserve natural vegetation as much as possible.
- Vegetative stabilization of all disturbed areas shall be established within 15 days of completion of the final grading.

SOILS:

BrB - Boyer sandy loam, 0 to 6 percent slopes
 Co - Colwood-Brookston loams
 Hn - Houghton muck
 KbA - Kibbie loam, 0 to 3 percent slopes
 MrA - Matherton sandy loam, 0 to 3 percent slopes
 OtB - Oshtemo-Spinks loamy sands, 0 to 6 percent slopes
 OtC - Oshtemo-Spinks loamy sands, 6 to 12 percent
 OwB - Owosso-Marlette sandy loams, 2 to 6 percent slopes
 OwC - Owosso-Marlette sandy loams, 6 to 12 percent slopes

RECOMMENDED CONSTRUCTION SCHEDULING & SEQUENCING

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
INSTALL SESC MEASURES												
PERFORM COMPENSATING CUTS												
ROUGH GRADE FOR TRAIL												
INSTALL HMA TRAIL												
CLEANUP AND RESTORATION												
REMOVE SESC MEASURES												



STANDARD CONSTRUCTION NOTES

- The Contractor shall notify the Charter Township of Meridian, Department of Public Works, Office of Engineering 517-853-4440 a minimum of 72 hours prior to the start of construction of public utilities or of construction within the public right-of-way.
- All construction shall conform to the current standards and specifications of the Charter Township of Meridian which are included as part of these plans in effect at the time of construction.
- After the completion of construction of public utilities or construction within public right-of-way, the contractor must request a final inspection. Any punchlist items resulting from the final inspection must be resolved prior to final release and acceptance.
- The existing utilities indicated on the plans are in accordance with available information. It shall be the contractor's obligation to verify the exact location of all existing utilities, which might affect this job.
- The contractor shall notify "MISS DIG" 1-800-482-7171 at least 72 hours prior to the start of construction.
- The contractor shall at all times be aware of inconvenience caused to the abutting property owners and the general public. Where the contractor does not remedy undue inconveniences, the Charter Township of Meridian, upon four hours notice, reserves the right to perform the work and deduct the cost therefore from the money due the contractor.
- A Registered Land Surveyor provided by the contractor at the contractor's expense shall replace all property irons and monuments disturbed or destroyed by the contractor's operations.
- Contractor shall provide Owner and Township Engineer a copy of written permission to use private property for storage of equipment and materials or for his construction operations.
- Trench backfill under existing or proposed roadways, driveways, and parking areas, shall be sand or gravel, placed in 12" layers (maximum) and consolidated to 95% of maximum density as measured by modified proctor unless otherwise noted.
- Trees and shrubs are to be protected during construction and bored where necessary.
- Existing fences shall be removed and restored to their original condition or better where in conflict with construction.
- Driveways, culverts, ditches, drain tile, tile fields, drainage structures, etc., that are disturbed by the contractor's operations shall be immediately restored.
- All established lawn areas disturbed by the contractor's operations shall be resodded with matching sod. All other areas shall be seeded and mulched. Seeding and mulching shall be done in accordance with the General Specifications.
- All ditch slopes shall have established vegetation and be protected from erosion.
- All utility poles in close proximity to construction shall be supported in a manner satisfactory to the utility owner.
- Onsite parking and sanitary facilities shall be provided for construction workers. The facilities shall be constructed and operated (with minimal impact to the surrounding area) to the satisfaction of the Township.

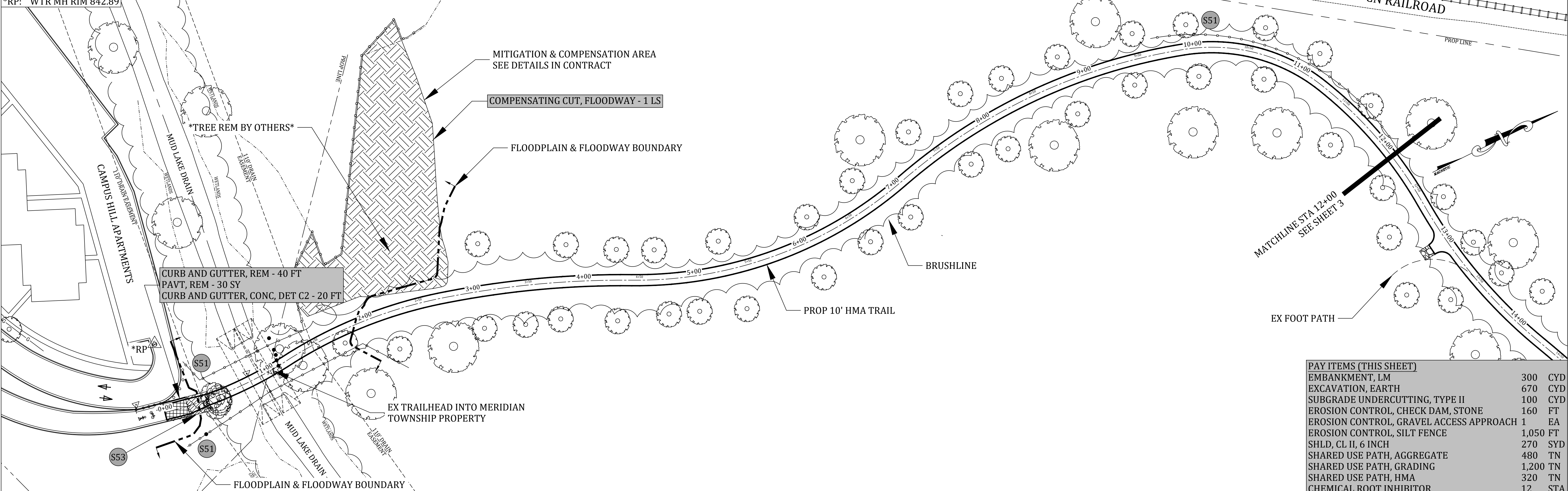
PATHWAY NOTES

- Pathways and sidewalks shall be four (4) inch thick concrete except at driveways where they shall be six (6) inch (residential) or seven (7) inch (commercial) thick concrete.
- Three (3) inches of compacted sand base shall be placed under all pathways and sidewalks.
- All bituminous aprons shall be two and one-half (2½) inches thick, unless otherwise noted.
- Property irons shall be maintained by the Contractor.
- All existing concrete and bituminous to be removed shall be sawcut. All bituminous removal shall be considered incidental to construction.
- All aggregate base material shall be four (4) inches of 22A.
- All tree (less than 6") and shrub removal shall be considered part of subgrade preparation.
- Location of new plant material shall be as directed by the Engineer, and shall be installed in accordance with guidelines established by the A.N.L.A.
- All plant material not marked for removal shall be protected.
- Bituminous drives shall be sawcut 18" on either side of proposed pathway.
- The maximum longitudinal slope is 5% (up to an absolute maximum of 8½% at the direction of the Engineer) and the maximum cross slope is 2%.
- Expansion joints shall be placed at approximately 100' intervals and shall be ½" thick. Contraction joints shall be sawcut to a depth of ¼ of the depth of the concrete.
- All lumber to be pressure treated (Osmose 33 or equal) to 0.4 retention.
- All items not covered under a specific pay item shall be considered incidental.

SHEET INDEX

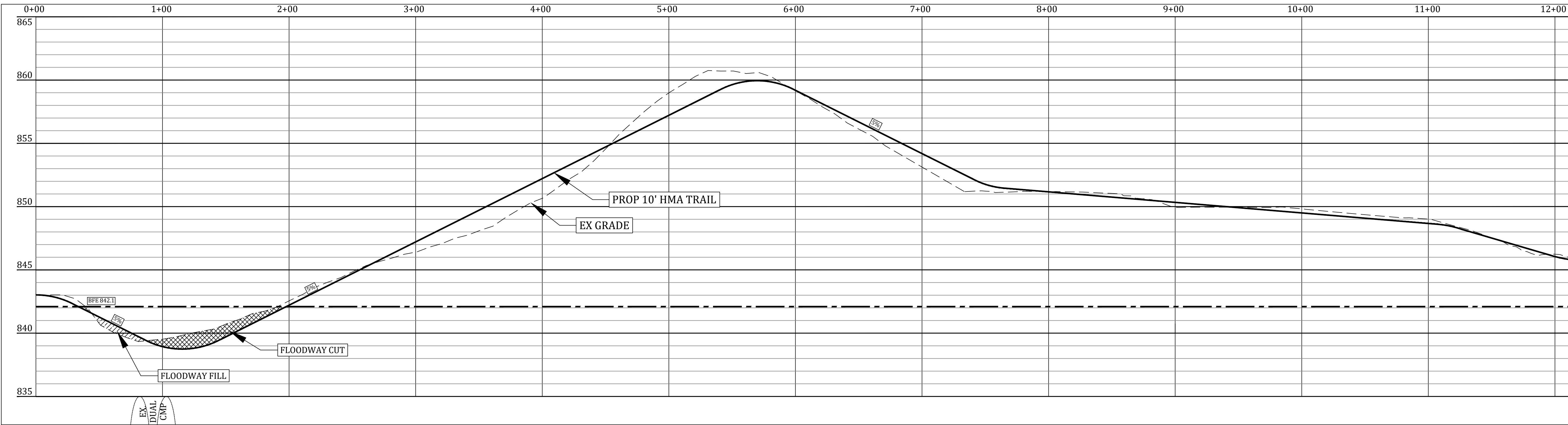
SHT #	TITLE
1	COVER SHEET
2	0+00 - 12+00
3	12+00 - 24+00
4	24+00 - 36+00
5	36+00 - END
6	TYPICAL DETAIL SHEET
7	PATHWAY DETAIL SHEET

S51	SILT FENCE	Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.	S53	STABILIZED CONSTRUCTION ACCESS	Used at every point where construction traffic enters or leaves a construction site.
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CURB AND GUTTER, REM - 40 FT
PAVT, REM - 30 SY
CURB AND GUTTER, CONC, DET C2 - 20 FT

PAY ITEMS (THIS SHEET)		
EMBANKMENT, LM	300	CYD
EXCAVATION, EARTH	670	CYD
SUBGRADE UNDERCUTTING, TYPE II	100	CYD
EROSION CONTROL, CHECK DAM, STONE	160	FT
EROSION CONTROL, GRAVEL ACCESS APPROACH	1	EA
EROSION CONTROL, SILT FENCE	1,050	FT
SHLD, CL II, 6 INCH	270	SYD
SHARED USE PATH, AGGREGATE	480	TN
SHARED USE PATH, GRADING	1,200	TN
SHARED USE PATH, HMA	320	TN
CHEMICAL ROOT INHIBITOR	12	STA



GENERAL NOTES:

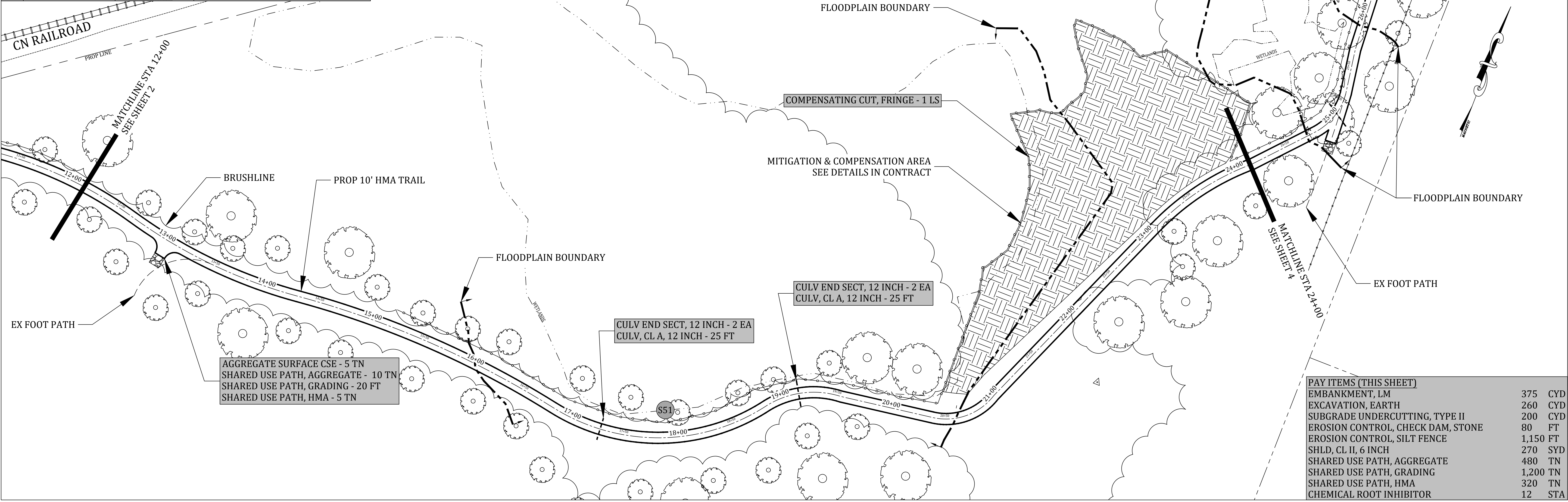
- TRAIL TO BE CONSTRUCTED AT EXISTING GRADE, OTHER THAN TO ACHIEVE THE SPECIFIED LONGITUDINAL SLOPE
- EMBANKMENT, LM AND EXCAVATION, EARTH QUANTITIES ARE ESTIMATES

PINE	DECID.	BUSH	STUMP	C.B.	F.H.	CATV BOX	TELE. MH	U.P. W/ GUY WIRE	STREET SIGN	SIGN	SAN. MH	STM. MH	TELE. BOX	WTR. MH	CATV MH	LIGHT	SITE BORING	MAILBOX	P.I.	C.M.P.	C.B.	G.V.	F.H.	CATV (COMCAST)	% OF ROADS	ELEC. (CONSUMERS)	GAS (CONSUMERS)	TELE. (SBC)	EX. SAN. MAIN	EX. STM. (I.C.D.C.)	EX. WTR. MAIN	PROPOSED SAN.	PROPOSED STM.	PROPOSED WTR.	PROPOSED 7' PATHWAY	

Call 811 before you dig.

WOLVERINE PIPE LINE COMPANY 219-844-9510

Meridian Charter Township Ingham County, Michigan 10' WIDE OFF-ROAD TRAIL		
MSU TO LAKE LANSING CONNECTOR TRAIL, PHASE II GRAND RIVER AVE - OKEMOS ROAD STA 0+00 - STA 12+00		
REVISIONS: DATE: 12.28.22 BY: NN COMMENTS: Prelim Plan	REVISIONS: DATE: 01.23.23 BY: NN COMMENTS: Bid Plan	SCALE: 1" = 40' HOR 1" = 4' VERT SHEET 2 OF 7
DRAWN BY: NN 12.09.22		CHECKED BY: YI

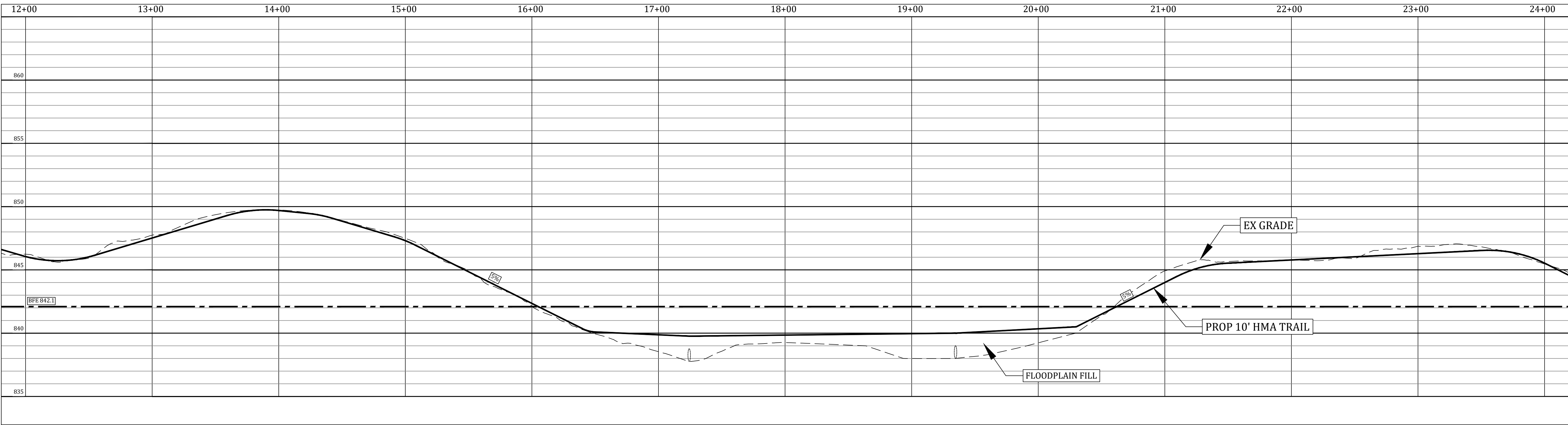


AGGREGATE SURFACE CSE - 5 TN
 SHARED USE PATH, AGGREGATE - 10 TN
 SHARED USE PATH, GRADING - 20 FT
 SHARED USE PATH, HMA - 5 TN

CULV END SECT, 12 INCH - 2 EA
 CULV, CL A, 12 INCH - 25 FT

CULV END SECT, 12 INCH - 2 EA
 CULV, CL A, 12 INCH - 25 FT

PAY ITEMS (THIS SHEET)	
EMBANKMENT, LM	375 CYD
EXCAVATION, EARTH	260 CYD
SUBGRADE UNDERCUTTING, TYPE II	200 CYD
EROSION CONTROL, CHECK DAM, STONE	80 FT
EROSION CONTROL, SILT FENCE	1,150 FT
SHLD, CL II, 6 INCH	270 SYD
SHARED USE PATH, AGGREGATE	480 TN
SHARED USE PATH, GRADING	1,200 TN
SHARED USE PATH, HMA	320 TN
CHEMICAL ROOT INHIBITOR	12 STA



GENERAL NOTES:
 - TRAIL TO BE CONSTRUCTED AT EXISTING GRADE, OTHER THAN TO ACHIEVE THE SPECIFIED LONGITUDINAL SLOPE
 - EMBANKMENT, LM AND EXCAVATION, EARTH QUANTITIES ARE ESTIMATES

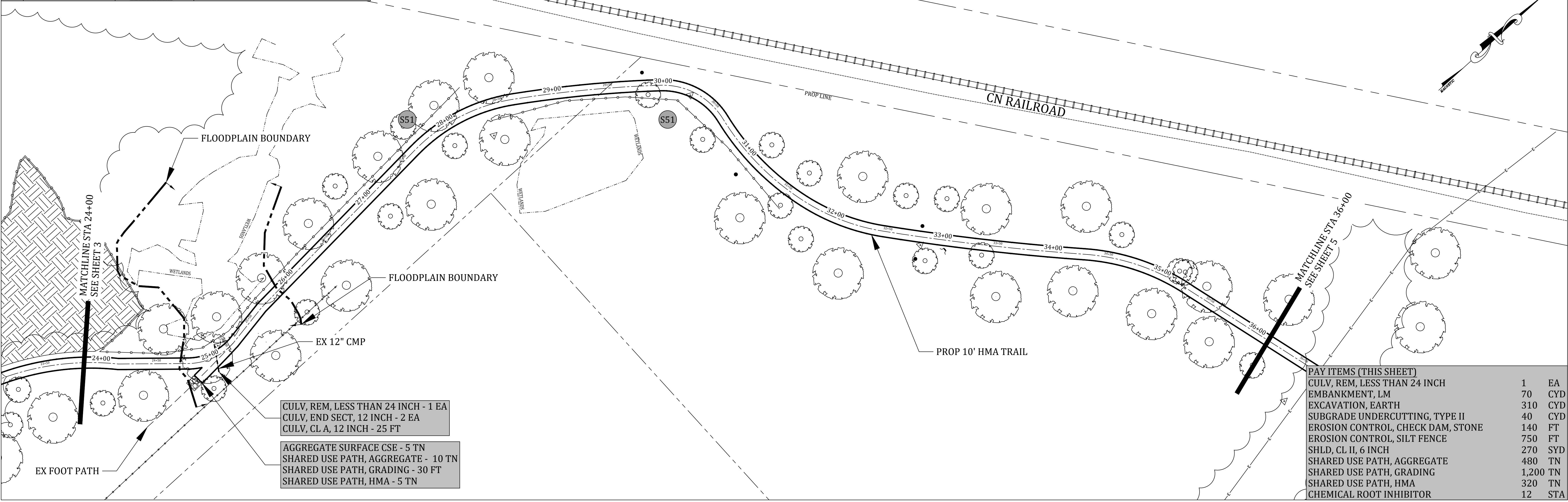
PINE	C.B.	CATV BOX	CATV MH	EX. SAN. MAIN
DECID.	SAN. MH	TELE. MH	LIGHT	EX. STM. (I.C.D.C.)
BUSH	STM. MH	U.P. W/ GUY WIRE	SITE BORING	EX. WTR. MAIN
STUMP	TELE. BOX	STREET SIGN	MAILBOX	PROPOSED SAN.
	WTR. MH	SIGN	P.I.	PROPOSED STM.
		F.H.	C.M.P.	PROPOSED WTR.
			G.V.	
			F.H.	
			PROPERTY LINE	
			R.O.W. (I.C.R.C., MDT)	
				PROPOSED 7' PATHWAY

EX. SAN. MAIN	LESS BOLD
EX. STM. (I.C.D.C.)	LESS BOLD
EX. WTR. MAIN	LESS BOLD
PROPOSED SAN.	BOLD
PROPOSED STM.	BOLD
PROPOSED WTR.	BOLD
PROPOSED 7' PATHWAY	

Call 811 before you dig.

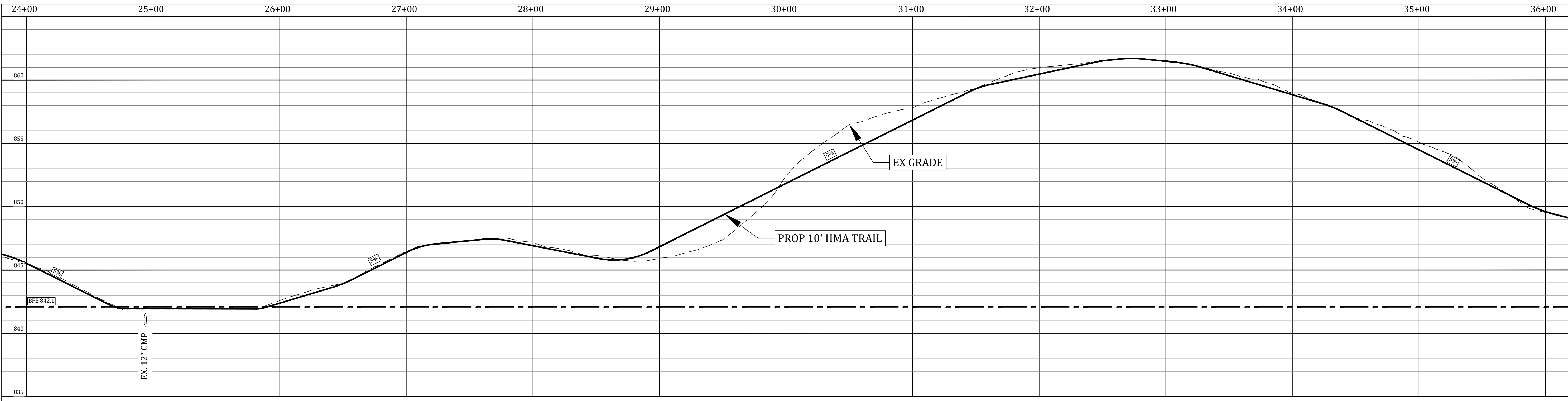
WOLVERINE PIPE LINE COMPANY 219-844-9510

Meridian Charter Township Ingham County, Michigan 10' WIDE OFF-ROAD TRAIL		REVISIONS: DATE BY COMMENTS 12.28.22 NN Prelim Plan 01.23.23 NN Bid Plan
MSU TO LAKE LANSING CONNECTOR TRAIL, PHASE II GRAND RIVER AVE - OKEMOS ROAD STA 12+00 - STA 24+00		SCALE: 1" = 40' HOR 1" = 4' VERT
DRAWN BY: NN 12.09.22	CHECKED BY: YI	SHEET 3 OF 7



CULV, REM, LESS THAN 24 INCH	1	EA
CULV, END SECT, 12 INCH	2	EA
CULV, CL A, 12 INCH	25	FT
AGGREGATE SURFACE CSE	5	TN
SHARED USE PATH, AGGREGATE	10	TN
SHARED USE PATH, GRADING	30	FT
SHARED USE PATH, HMA	5	TN

PAY ITEMS (THIS SHEET)		
CULV, REM, LESS THAN 24 INCH	1	EA
EMBANKMENT, LM	70	CYD
EXCAVATION, EARTH	310	CYD
SUBGRADE UNDERCUTTING, TYPE II	40	CYD
EROSION CONTROL, CHECK DAM, STONE	140	FT
EROSION CONTROL, SILT FENCE	750	FT
SHLD, CL II, 6 INCH	270	SYD
SHARED USE PATH, AGGREGATE	480	TN
SHARED USE PATH, GRADING	1,200	TN
SHARED USE PATH, HMA	320	TN
CHEMICAL ROOT INHIBITOR	12	STA



GENERAL NOTES:

- TRAIL TO BE CONSTRUCTED AT EXISTING GRADE, OTHER THAN TO ACHIEVE THE SPECIFIED LONGITUDINAL SLOPE
- EMBANKMENT, LM AND EXCAVATION, EARTH QUANTITIES ARE ESTIMATES

PINE	C.B.	CATV MH	CATV (COMCAST)	EX. SAN. MAIN	LESS BOLD
DECID.	SAN. MH	LIGHT	% OF ROADS	EX. STM. (I.C.D.C.)	LESS BOLD
BUSH	ST. MH	SITE BORING	ELEC. (CONSUMERS)	EX. WTR. MAIN	LESS BOLD
STUMP	TELE. BOX	P.I.	GAS (CONSUMERS)	PROPOSED SAN.	BOLD
	WTR. MH	C.M.P.	TELE. (SBC)	PROPOSED STM.	BOLD
		G.V.	PROPERTY LINE	PROPOSED WTR.	BOLD
		F.H.	R.O.W. (I.C.R.C., M.DOT)	PROPOSED 7' PATHWAY	

Call 811 before you dig.

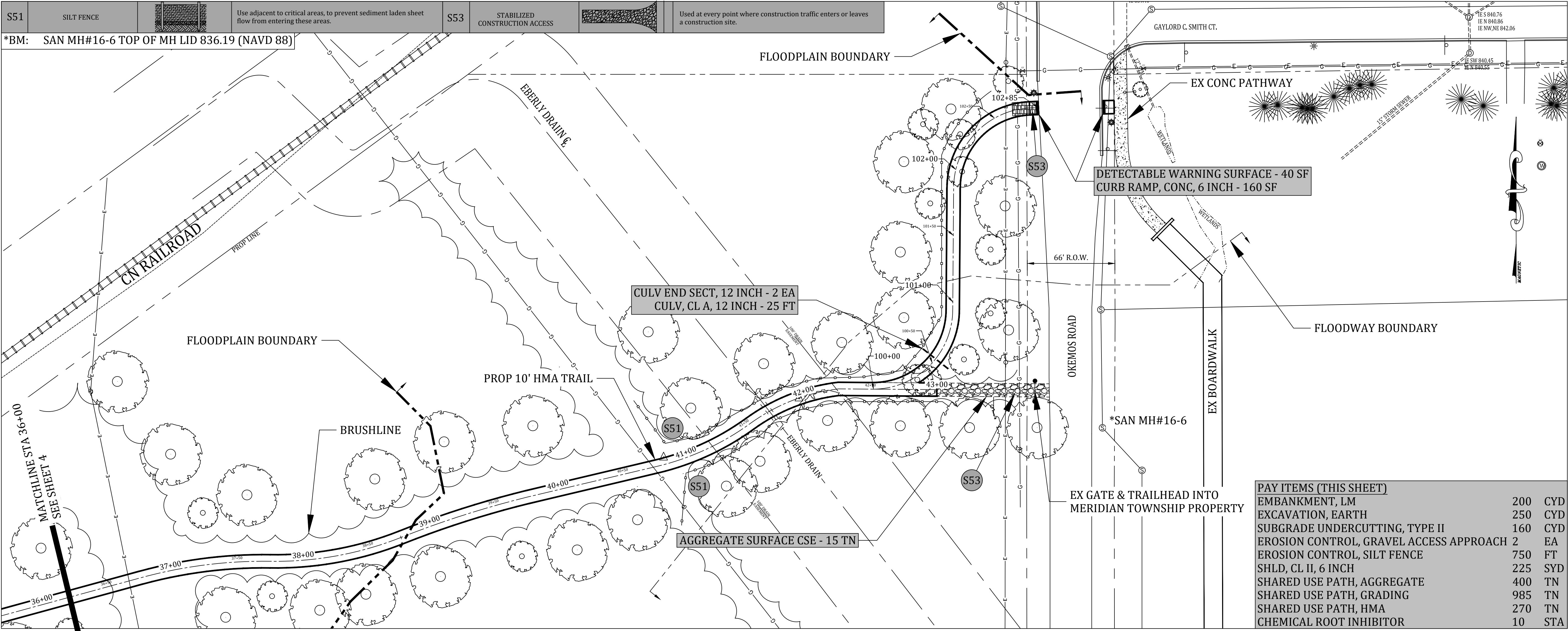
WOLVERINE PIPE LINE COMPANY 219-844-9510

Meridian Charter Township Ingham County, Michigan 10' WIDE OFF-ROAD TRAIL		
MSU TO LAKE LANSING CONNECTOR TRAIL, PHASE II GRAND RIVER AVE - OKEMOS ROAD STA 24+00 - STA 36+00		
REVISIONS: DATE: 12.28.22 BY: NN COMMENTS: Prelim Plan	REVISIONS: DATE: 01.23.23 BY: NN COMMENTS: Bid Plan	SCALE: 1" = 40' HOR 1" = 4' VERT SHEET 4 OF 7
DRAWN BY: NN 12.09.22	CHECKED BY: YI	

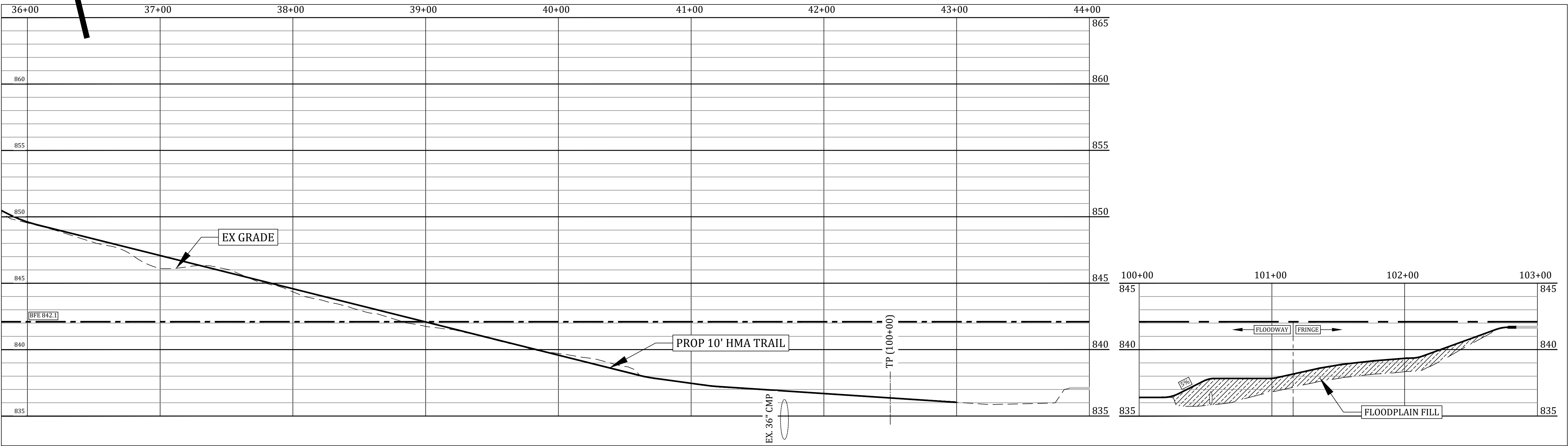
S51 SILT FENCE Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.

S53 STABILIZED CONSTRUCTION ACCESS Used at every point where construction traffic enters or leaves a construction site.

*BM: SAN MH#16-6 TOP OF MH LID 836.19 (NAVD 88)



PAY ITEMS (THIS SHEET)	
EMBANKMENT, LM	200 CYD
EXCAVATION, EARTH	250 CYD
SUBGRADE UNDERCUTTING, TYPE II	160 CYD
EROSION CONTROL, GRAVEL ACCESS APPROACH 2	EA
EROSION CONTROL, SILT FENCE	750 FT
SHLD, CL II, 6 INCH	225 SYD
SHARED USE PATH, AGGREGATE	400 TN
SHARED USE PATH, GRADING	985 TN
SHARED USE PATH, HMA	270 TN
CHEMICAL ROOT INHIBITOR	10 STA



- GENERAL NOTES:
- TRAIL TO BE CONSTRUCTED AT EXISTING GRADE, OTHER THAN TO ACHIEVE THE SPECIFIED LONGITUDINAL SLOPE
 - EMBANKMENT, LM AND EXCAVATION, EARTH QUANTITIES ARE ESTIMATES

PINE	C.B.	CATV BOX	CATV MH	EX. SAN. MAIN	LESS BOLD
DECID.	F.H.	TELE. MH	LIGHT	EX. STM. (I.C.D.C.)	LESS BOLD
BUSH		U.P. W/ GUY WIRE	SITE BORING	EX. WTR. MAIN	LESS BOLD
STUMP		STREET SIGN	MAILBOX	PROPOSED SAN.	BOLD
		SIGN	P.I.	PROPOSED STM.	BOLD
		SAN. MH	C.M.P.	PROPOSED WTR.	BOLD
		STM. MH	G.V.	PROPOSED 7' PATHWAY	
		TELE. BOX	F.H.		
		WTR. MH			

Call 811 before you dig.

WOLVERINE PIPE LINE COMPANY 219-844-9510

Meridian Charter Township
Ingham County, Michigan

10' WIDE OFF-ROAD TRAIL

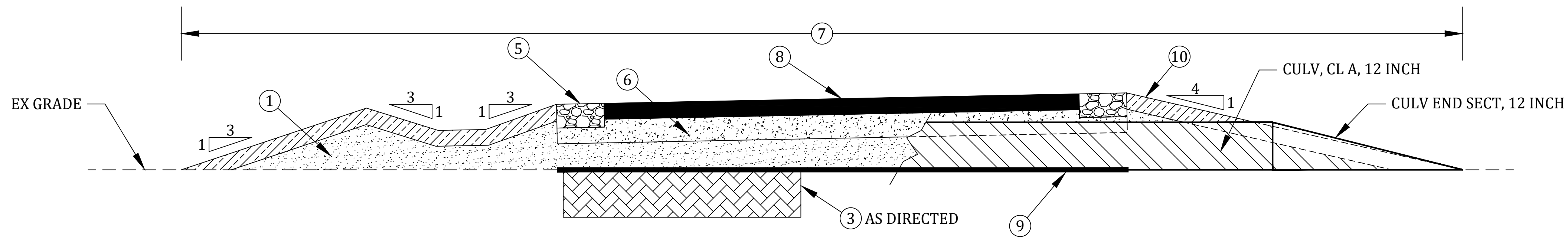
MSU TO LAKE LANSING CONNECTOR TRAIL, PHASE II
GRAND RIVER AVE - OKEMOS ROAD
STA 36+00 - END

DRAWN BY: NN 12.09.22 CHECKED BY: YI

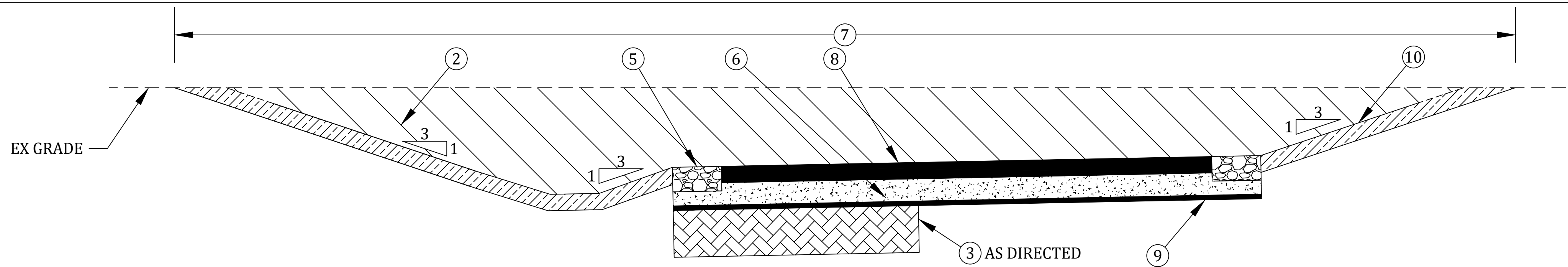
REVISIONS:		
DATE	BY:	COMMENTS:
12.28.22	NN	Prelim Plan
01.23.23	NN	Bid Plan

SCALE:
1" = 40' HOR
1" = 4' VERT

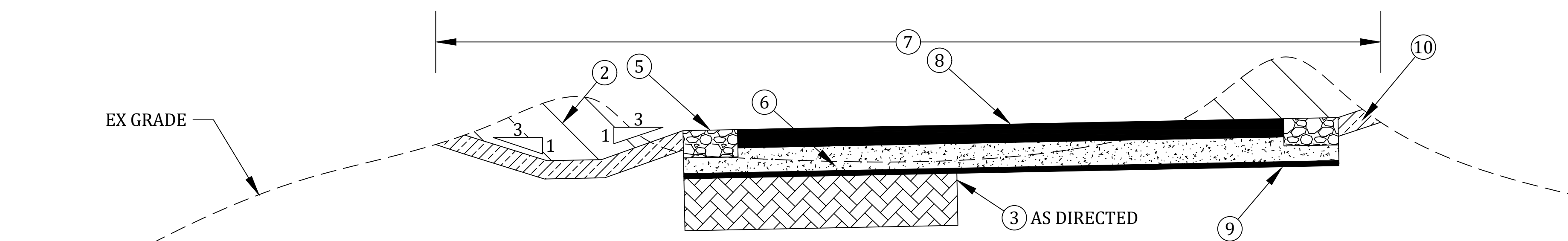
SHEET 5 OF 7



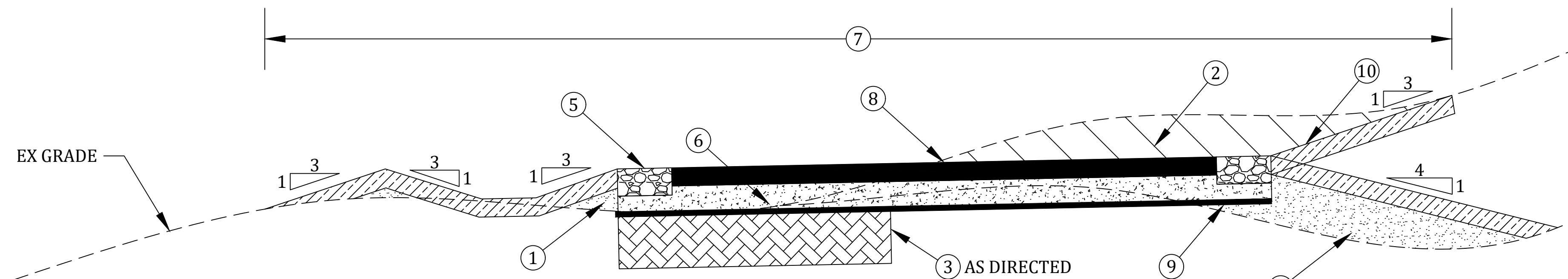
TYPICAL DETAIL: FILL
 STA. 0+00 - 1+00 ; 17+00 - 20+00 ; 29+00 - 30+00 ; 100+25 - 102+75



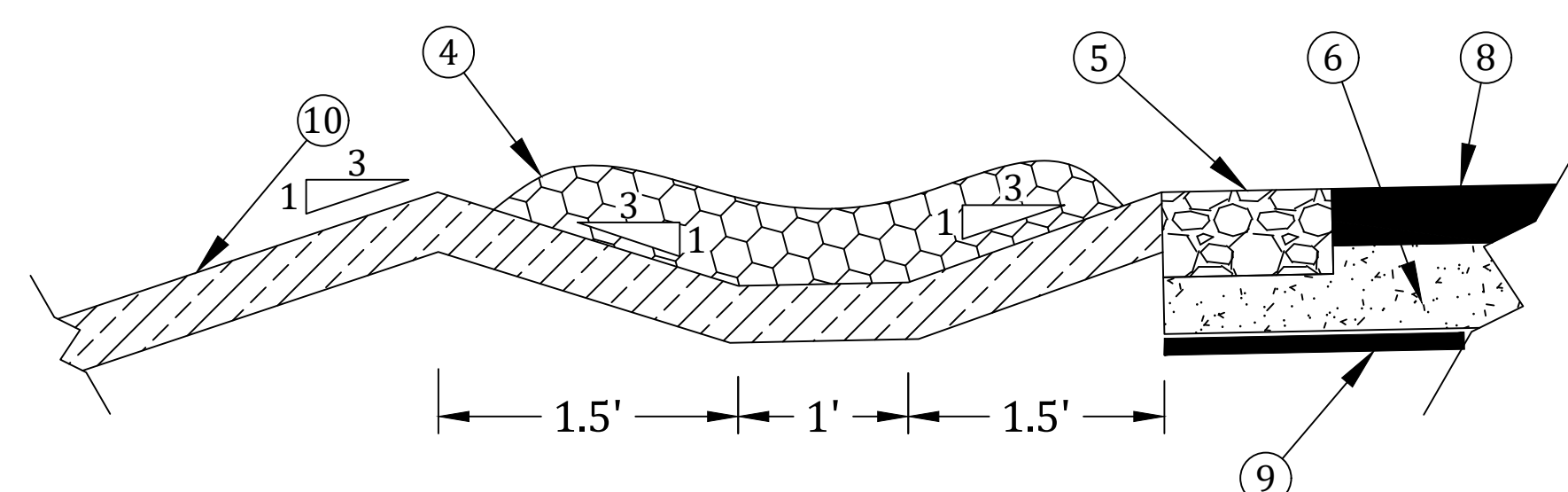
TYPICAL DETAIL: CUT
 STA. 1+00 - 2+50 ; 30+00 - 31+50



TYPICAL DETAIL: HILL W/BERMS
 STA. 4+00 - 7+00



TYPICAL DETAIL: MINOR CUT/FILL TO CONSTRUCT AT/NEAR GRADE
 STA. 2+50 - 4+00 ; 7+00 - 17+00 ; 20+00 - 29+00 ; 31+00 - 43+00



TYPICAL DETAIL: SWALE (POST CONSTRUCTION RUNOFF MITIGATION)
 STA. *ALL*

PAY ITEM LEGEND:

- ① EMBANKMENT, LM
- ② EXCAVATION, EARTH
- ③ SUBGRADE UNDERCUTTING, TYPE II
- ④ EROSION CONTROL, CHECK DAM, STONE
- ⑤ SHLD, CL II, 6 INCH
- ⑥ SHARED USE PATH, AGGREGATE (6 INCH DEEP)
- ⑦ SHARED USE PATH, GRADING
- ⑧ SHARED USE PATH, HMA
- ⑨ CHEMICAL ROOT INHIBITOR
- ⑩ SITE RESTORATION (3" SCREENED TOPSOIL)

PAY ITEMS & QUANTITIES (MISC):

MOBILIZATION, MAX	1	LS
TRAFFIC CONTROL	1	LS
SITE RESTORATION	1	LS

GENERAL NOTES:

- CROSS-SECTIONS ARE NOT TO SCALE.
- CROSS-SECTIONS ARE LOOKING DOWN-STATION.
- SALVAGE OR REMOVE EXISTING TOPSOIL WITHIN THE GRADING LIMITS, OR AS DIRECTED BY THE ENGINEER. REMOVAL AND DISPOSAL WILL BE PAID FOR AS **EXCAVATION, EARTH**.
- TOPSOIL FOR **SITE RESTORATION** MAY BE SALVAGED FROM SITE, BUT MUST BE SCREENED OR RAKED TO REMOVE 1" OR GREATER DEBRIS.
- FOR **SITE RESTORATION**, USE SEED MEETING MDOT THM MIXTURE.
- **EMBANKMENT, LM** SHALL BE CLASS II GRANULAR MATERIAL OR ASPHALT MILLINGS.
- **SHARED USE PATH, AGGREGATE** SHALL BE 21AA AGGREGATE OR ASPHALT MILLINGS.
- FOR **EMBANKMENT, LM** AND **SHARED USE PATH, AGGREGATE** THE CONTRACTOR MAY USE MILLINGS FROM THE STOCKPILE AT MERIDIAN TOWNSHIP'S SERVICE CENTER. THERE ARE MORE THAN ENOUGH MILLINGS FOR ALL OF THE FILL REQUIRED ON THIS PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE THE LABOR AND EQUIPMENT TO LOAD AND TRANSPORT THE MILLINGS FROM THE STOCKPILE LOCATION TO THE CONSTRUCTION SITE.

HMA APPLICATION TABLE

COURSE	MIX TYPE	YIELD (#/SY)	BINDER	BOND COAT (GAL/SY)	TAV (%)
BASE	13A	220	58-28	0.05-0.15	4
TOP	13A	220	58-28	0.05-0.15	3

ESTIMATED CUT/FILL QUANTITIES:

TOTAL CUT- 130 CY
 TOTAL FILL- 705 CY

Meridian Charter Township
 Ingham County, Michigan
10' WIDE OFF-ROAD TRAIL

MSU TO LAKE LANSING CONNECTOR TRAIL, PHASE II
 GRAND RIVER AVE - OKEMOS ROAD
 TYPICAL DETAIL SHEET

REVISIONS:		
DATE	BY:	COMMENTS:
12.28.22	NN	Prelim Plan
01.23.23	NN	Bid Plan

SCALE:
 1" = 40' HOR
 1" = 4' VERT

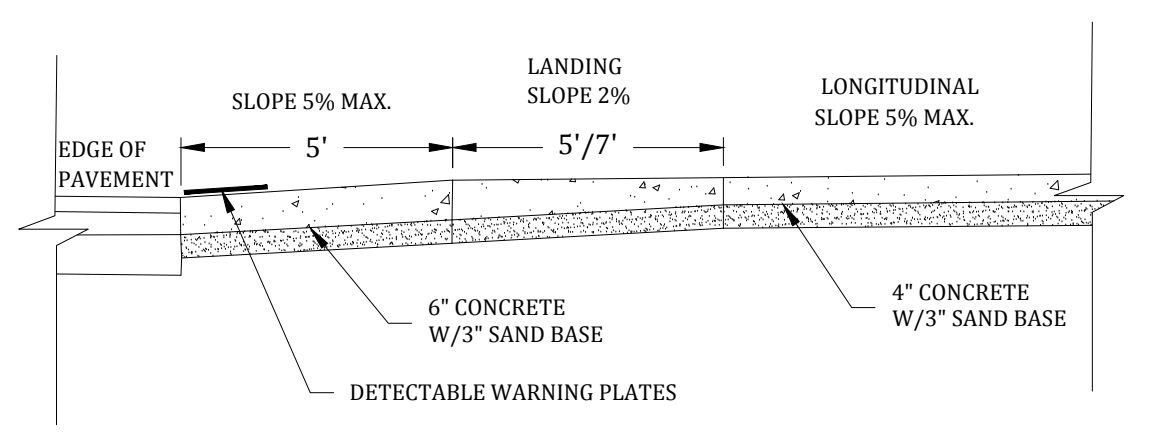
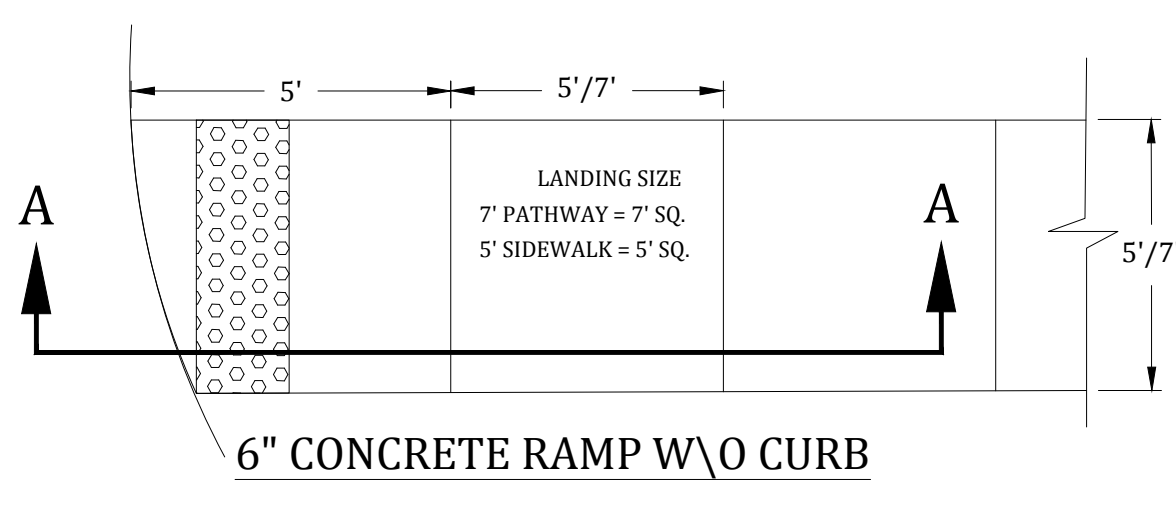
SHEET 6 OF 7

DRAWN BY: NN 12.09.22

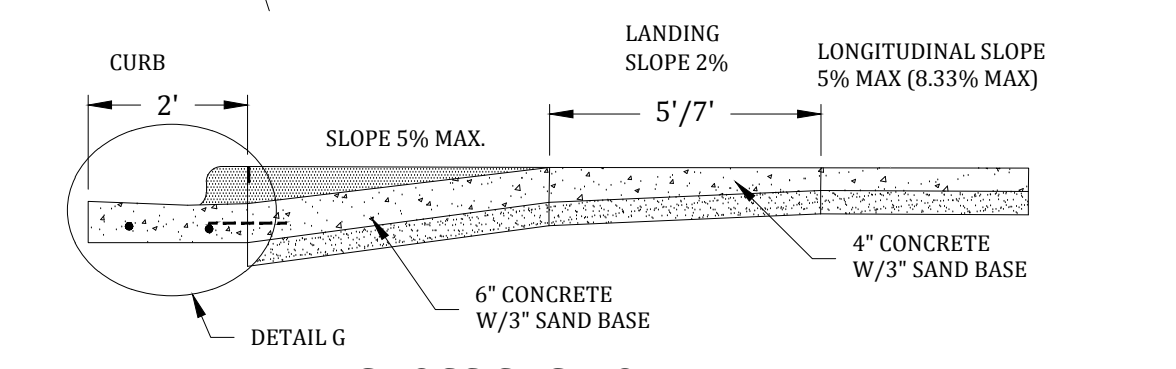
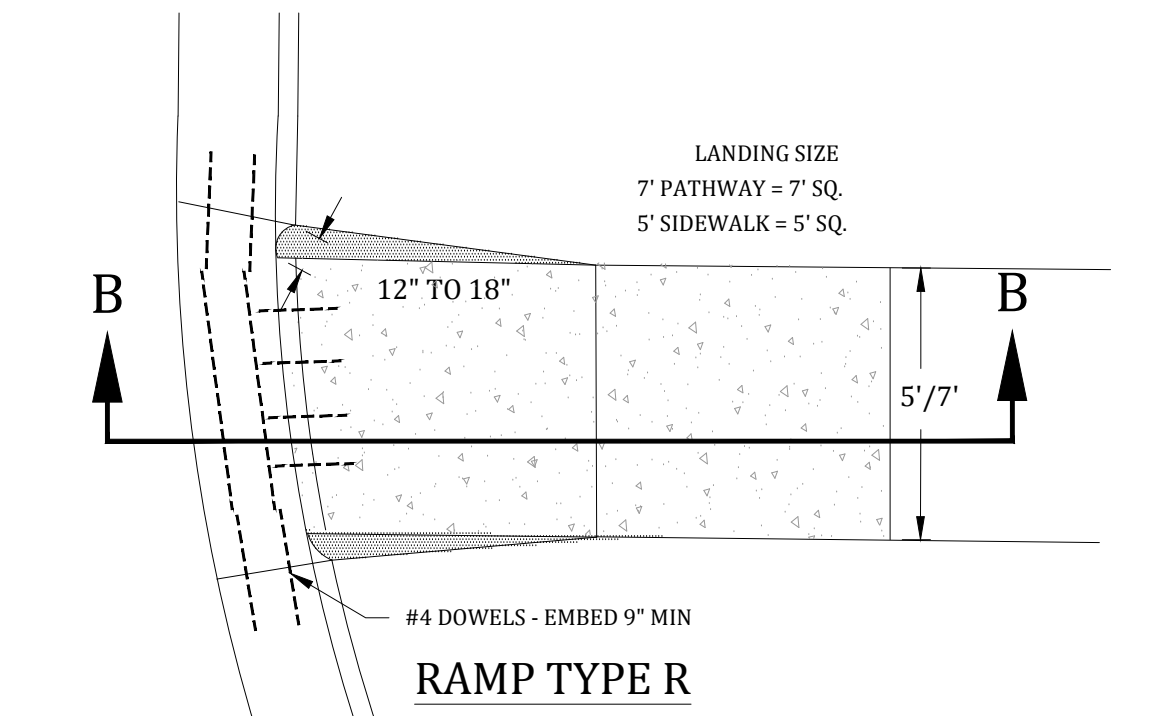
CHECKED BY: YI

CHECK DAMS:

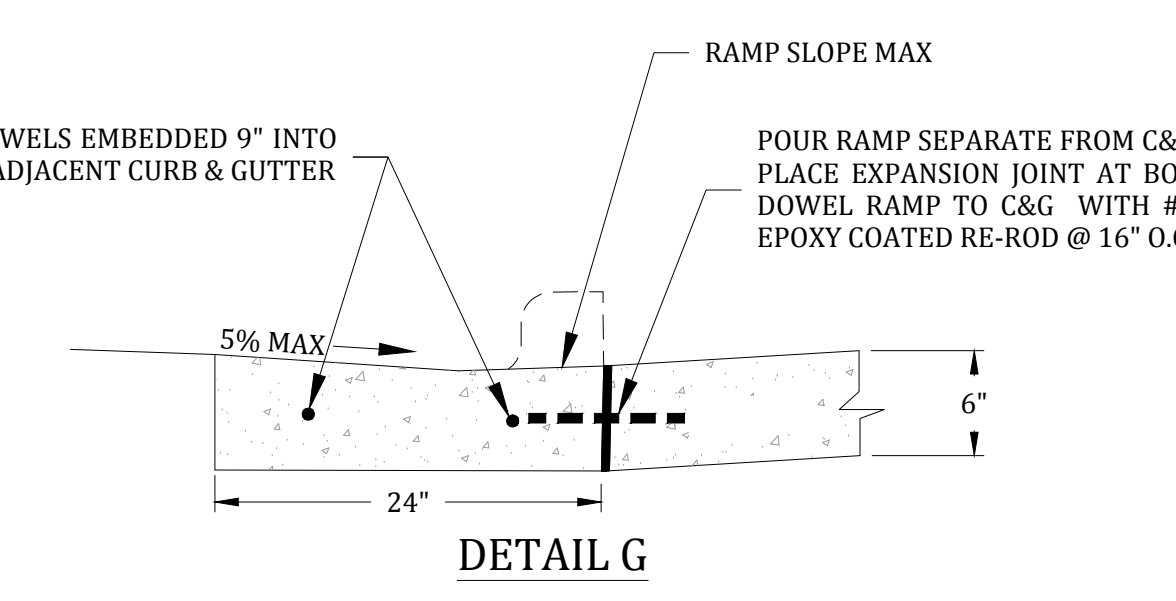
- USE CHECK DAMS FOR SWALE GRADES 3-5%.
- SPACE OUT CHECK DAMS AT 20' O.C.
- USE 1-3" CRUSHED, WASHED STONE OR CONCRETE.



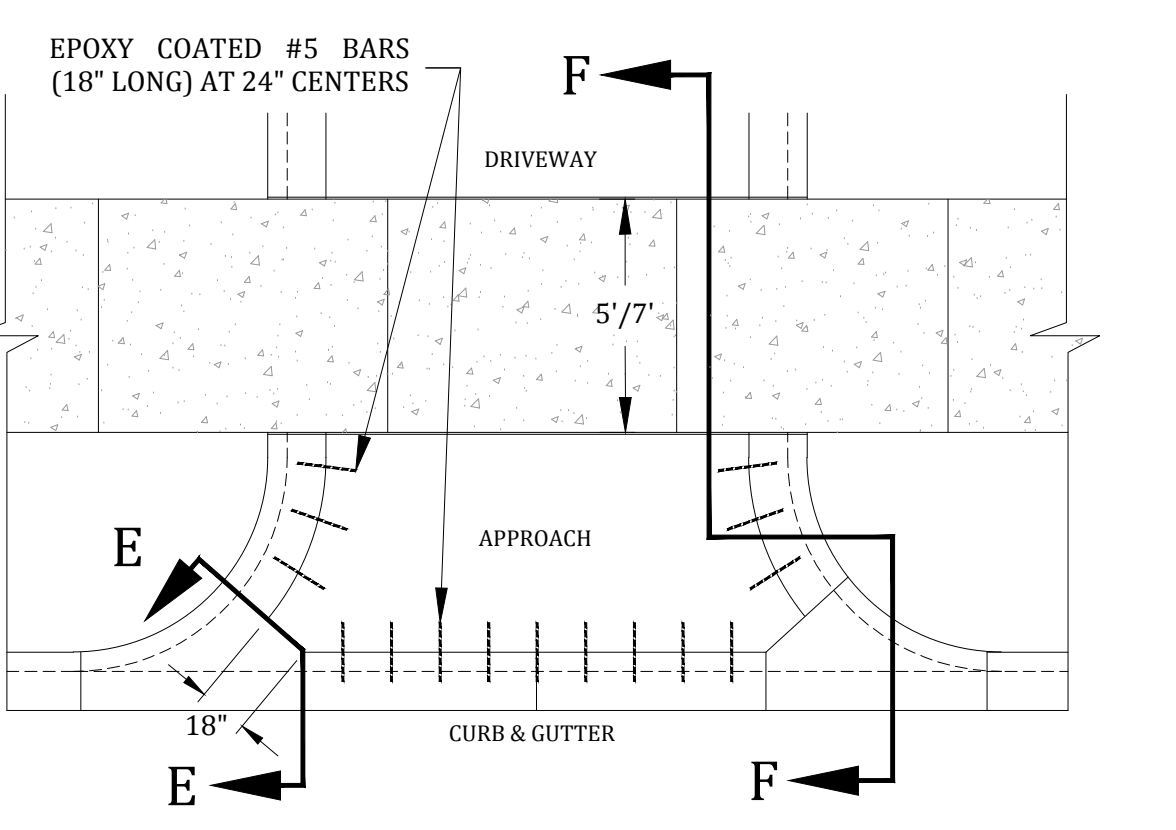
CROSS SECTION A-A



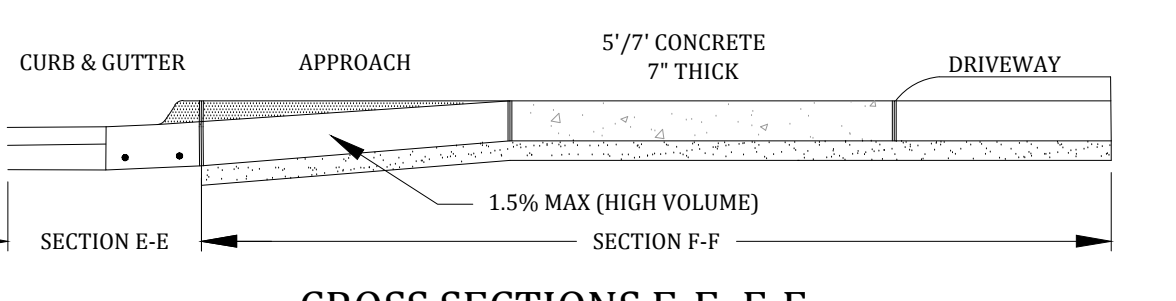
CROSS SECTION B-B



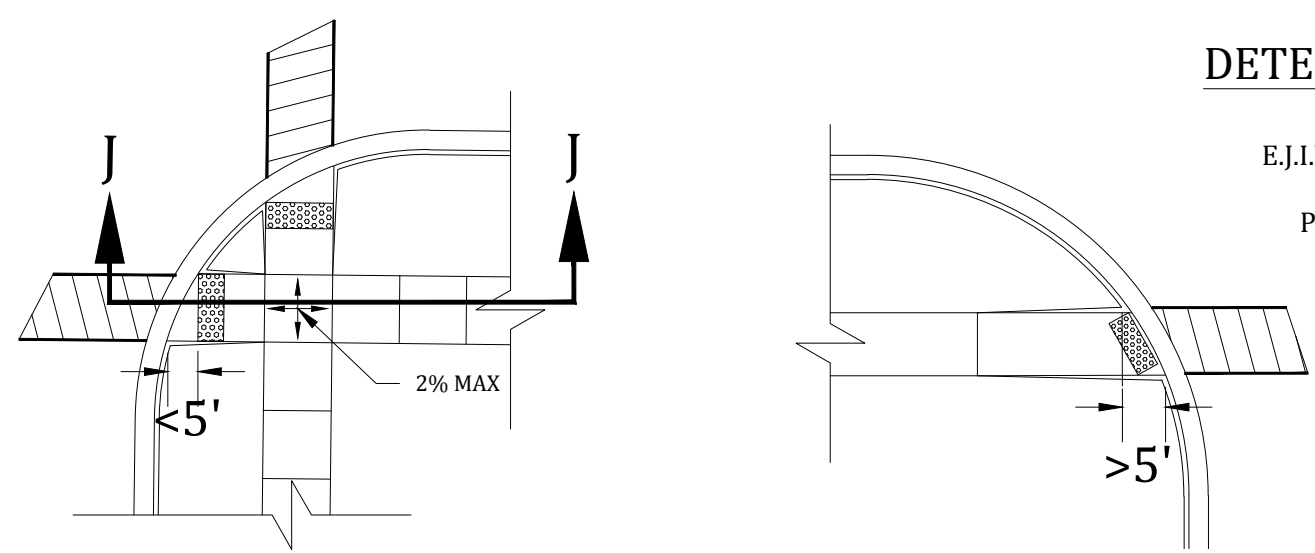
DETAIL G



TYP. COMMERCIAL DRIVEWAY PLAN

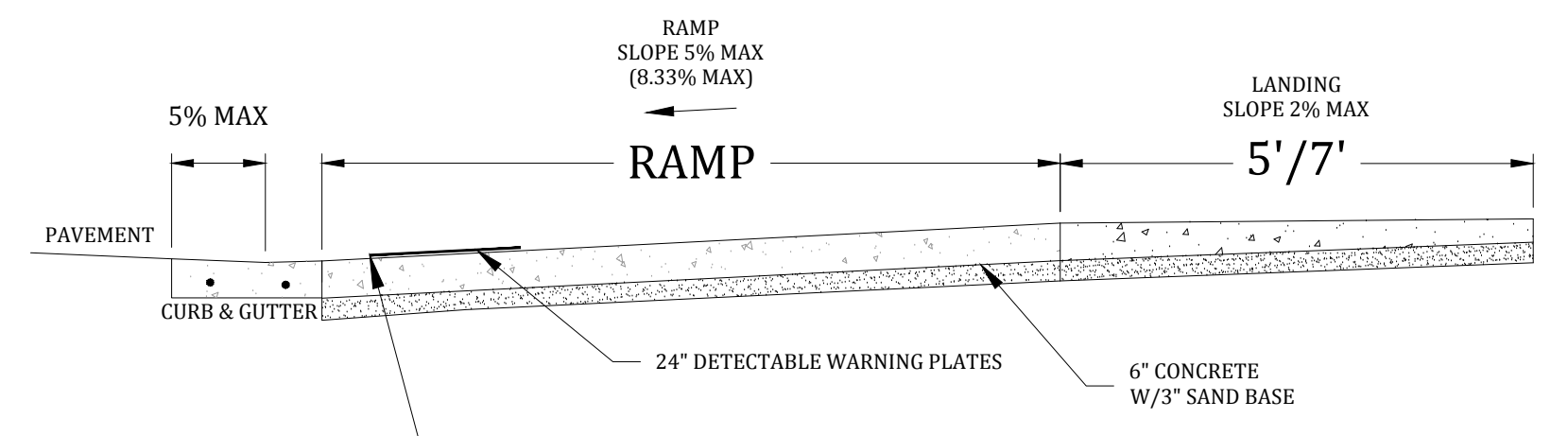


CROSS SECTIONS E-E, F-F



RAMPS LOCATED IN RADIUS

RAMP LOCATED IN RADIUS

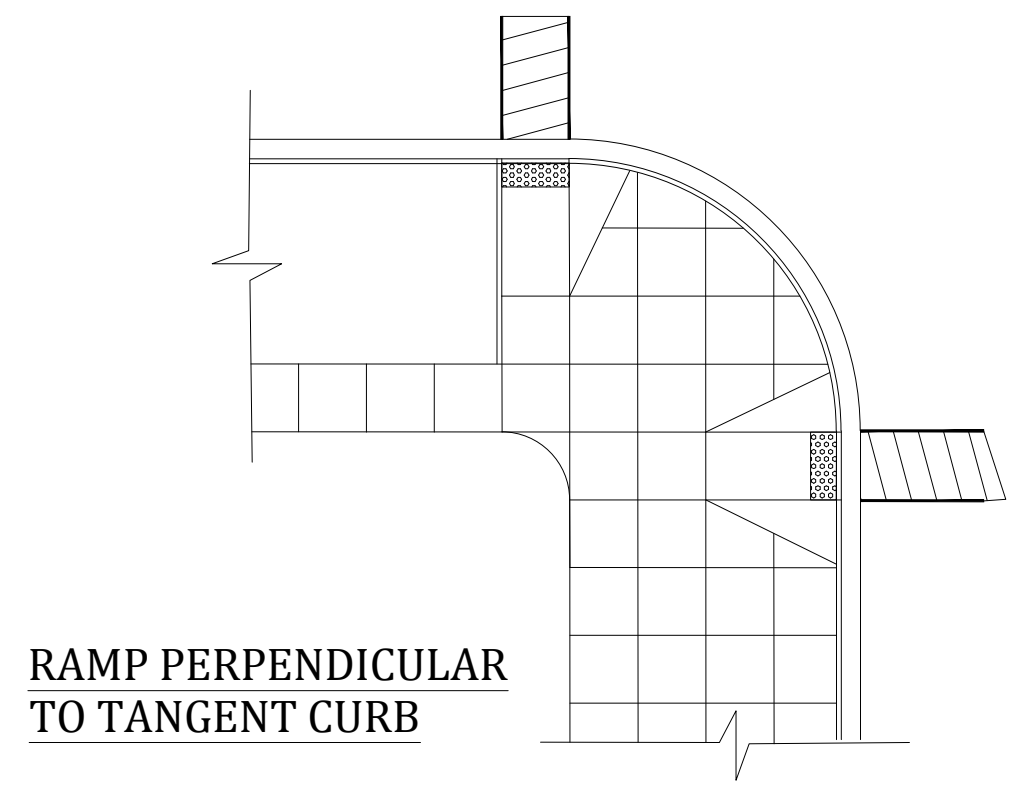


SECTION J-J

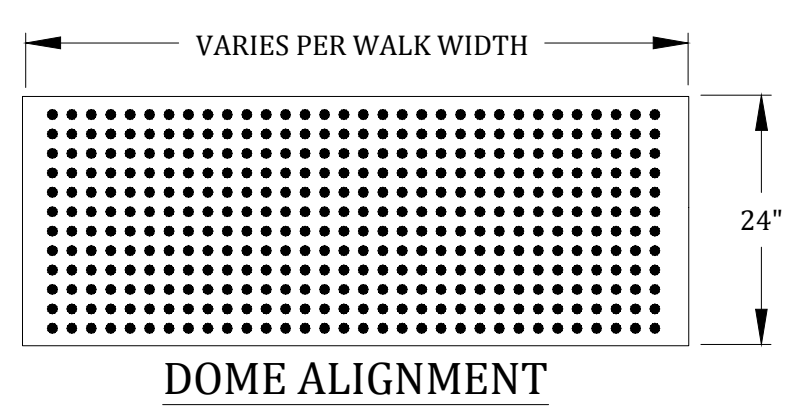
GRADE BREAKS AT THE TOP AND BOTTOM OF PERPENDICULAR CURB RAMPS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL. AT LEAST ONE END OF THE BOTTOM GRADE BREAK SHALL BE AT THE BACK OF CURB.

DETECTABLE WARNING DETAILS

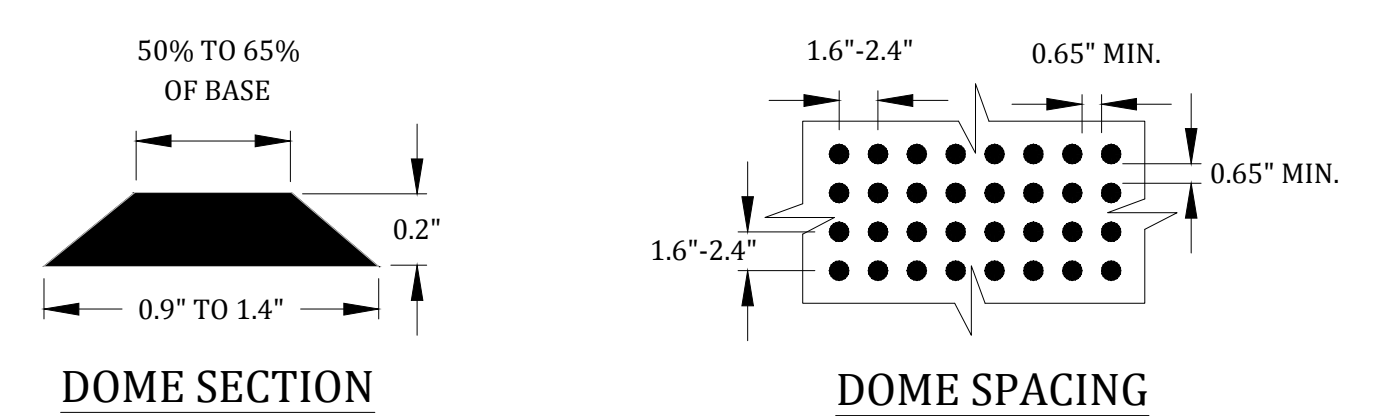
E.J.L.W. 7005 DETECTABLE WARNING PLATE
SIZES AVAILABLE 12", 18" & 24"
PLATES MUST BE ASPHALTIC COATED



RAMP PERPENDICULAR TO TANGENT CURB

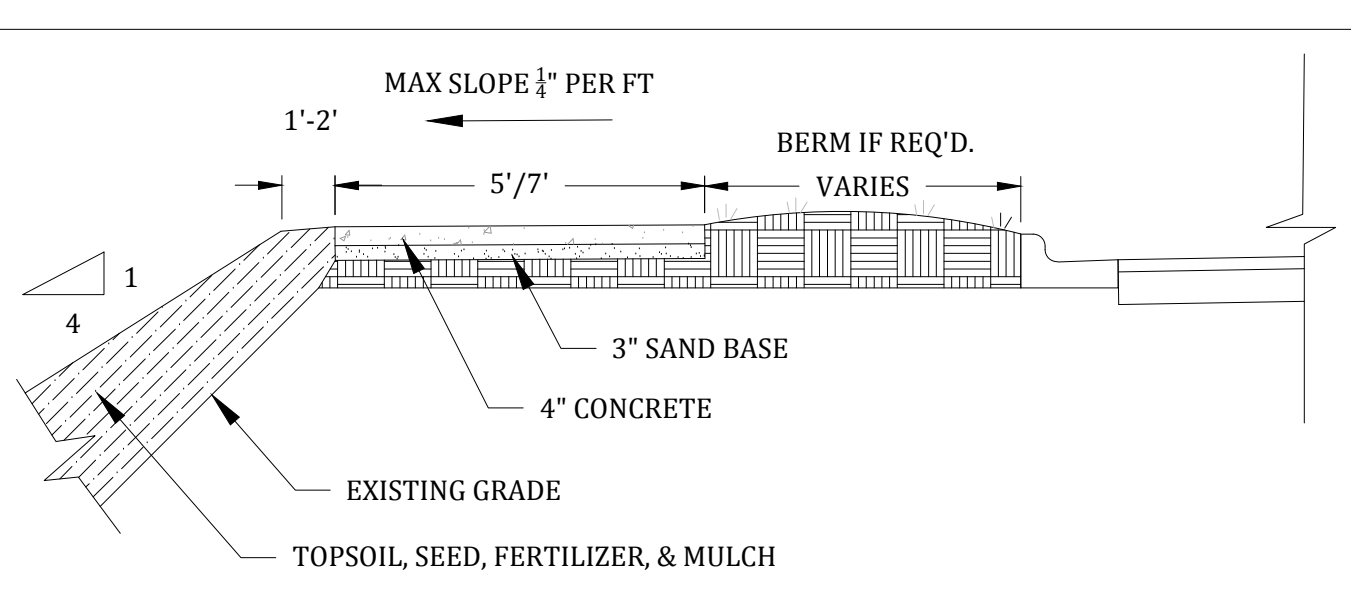


DOME ALIGNMENT

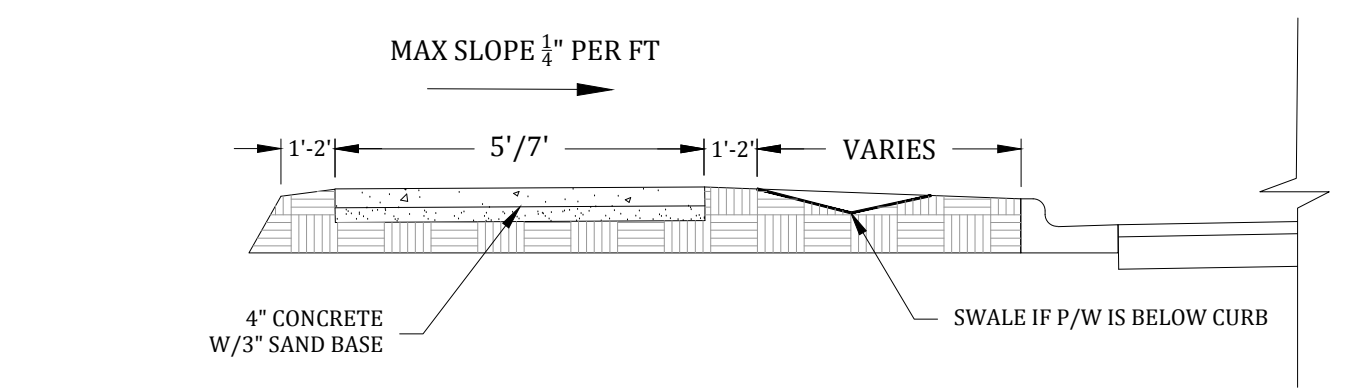


DOME SECTION

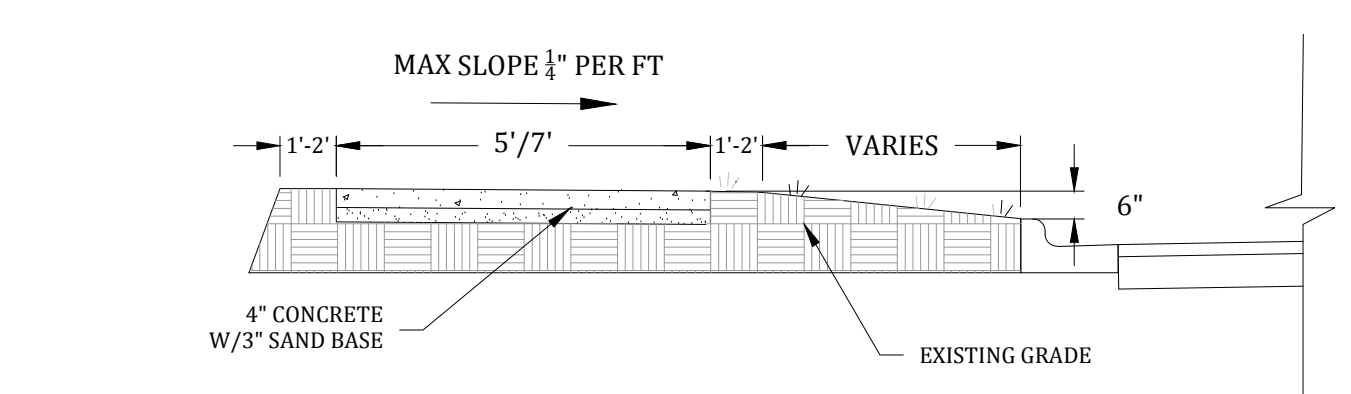
DOME SPACING



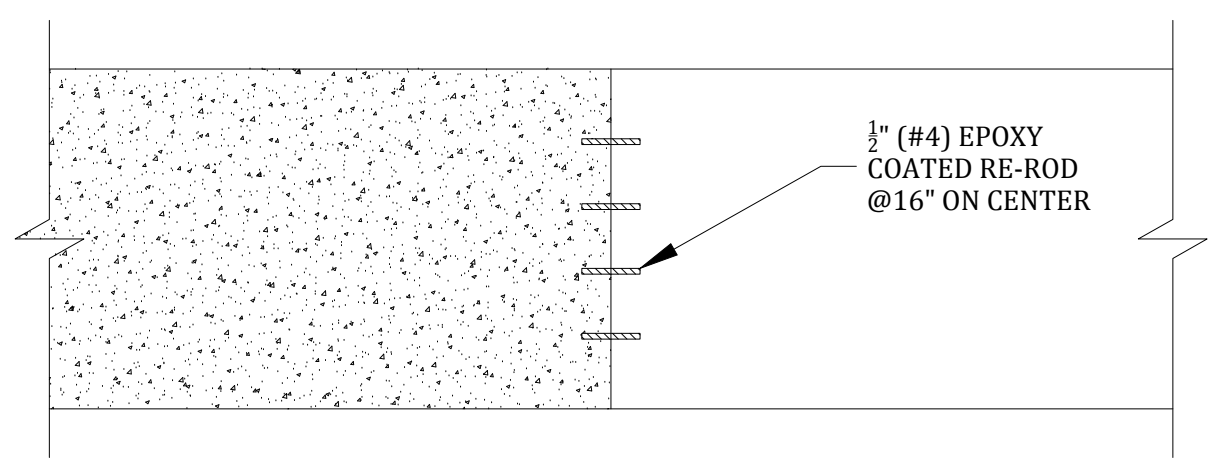
EMBANKMENT & BERM CROSS SECTION



SWALE CROSS SECTION

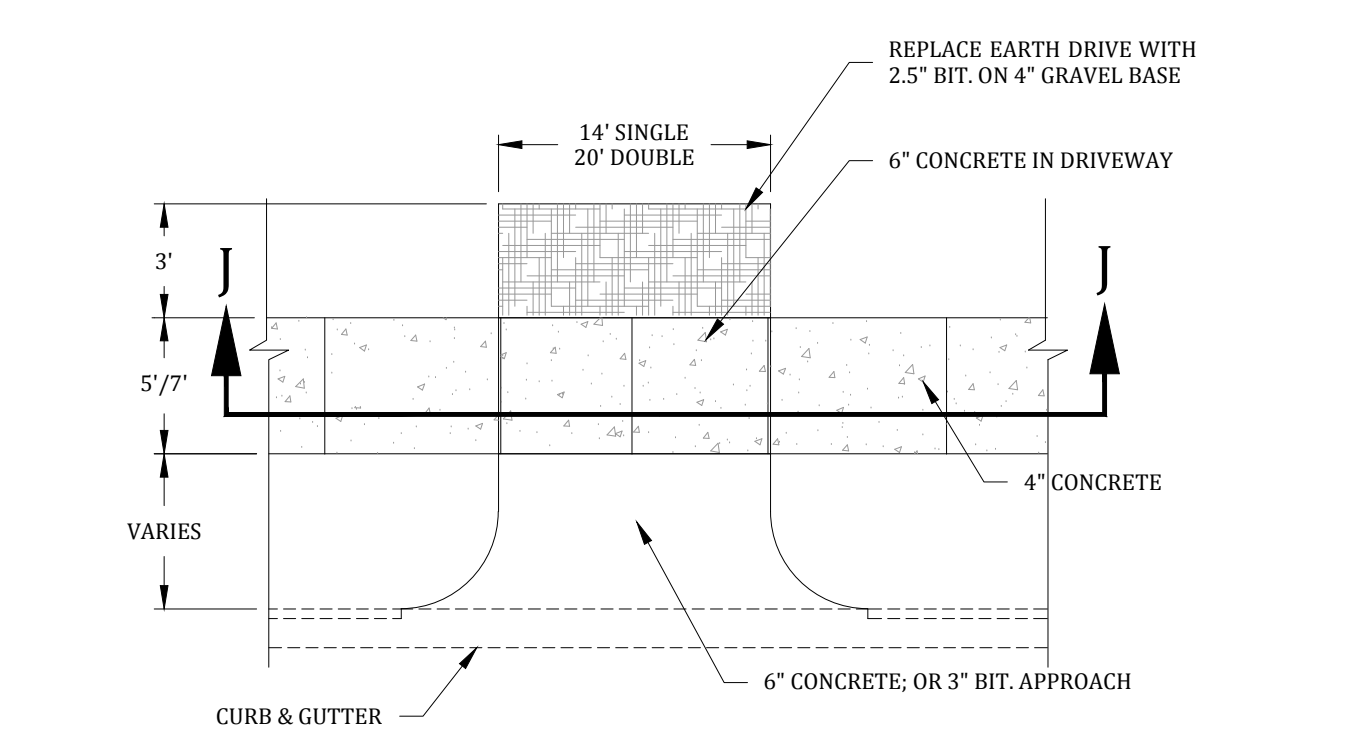


TYPICAL CROSS SECTION

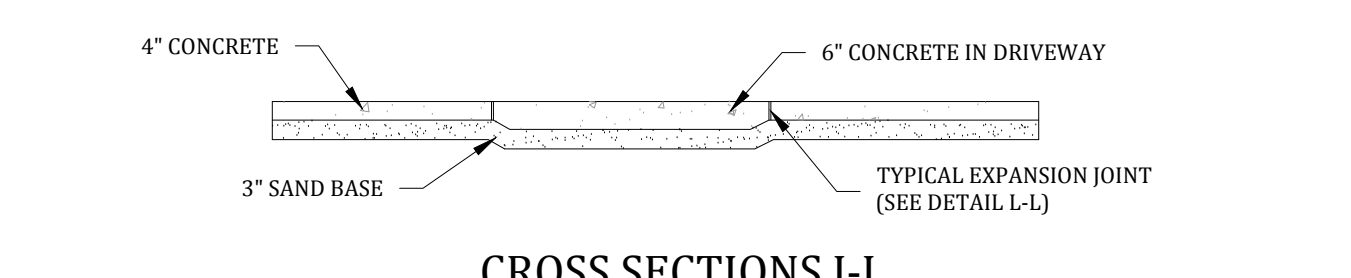


CONCRETE PINNING DETAIL

CROSS SECTION- (NO SCALE)

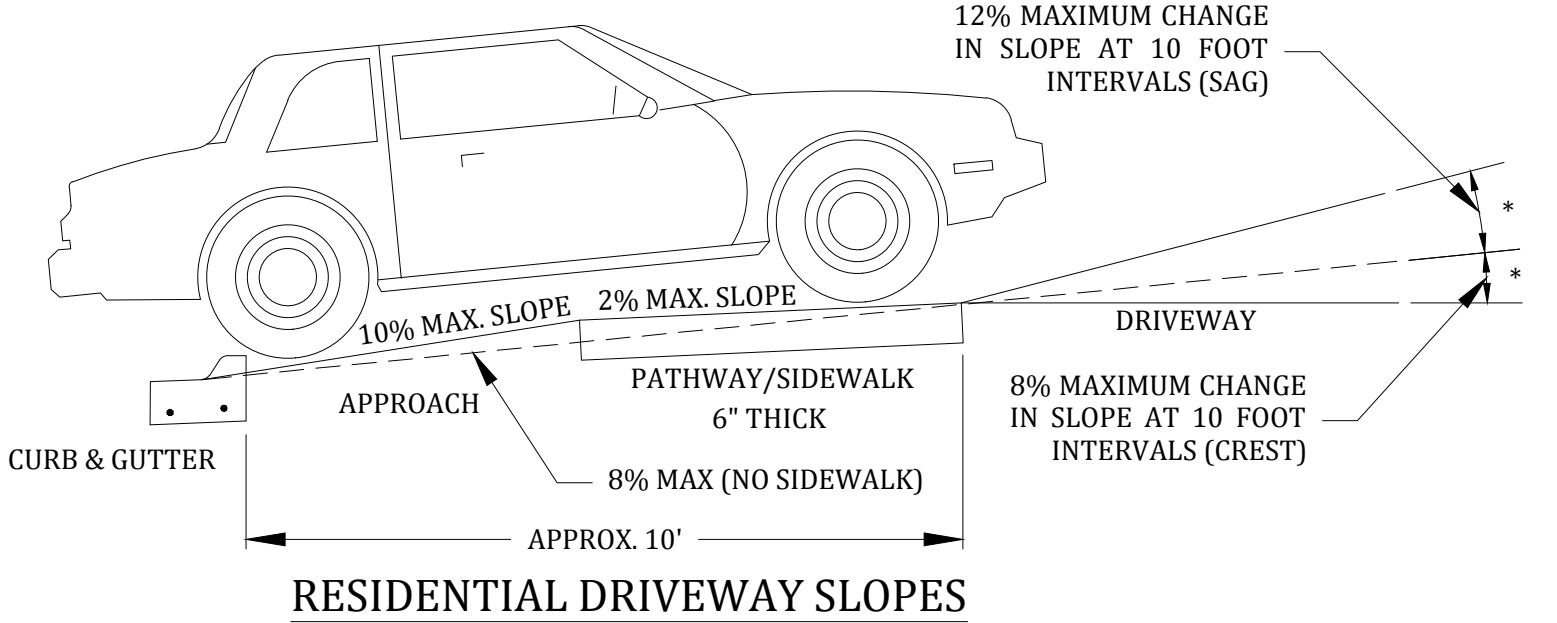


TYP. RESIDENTIAL DRIVEWAY PLAN

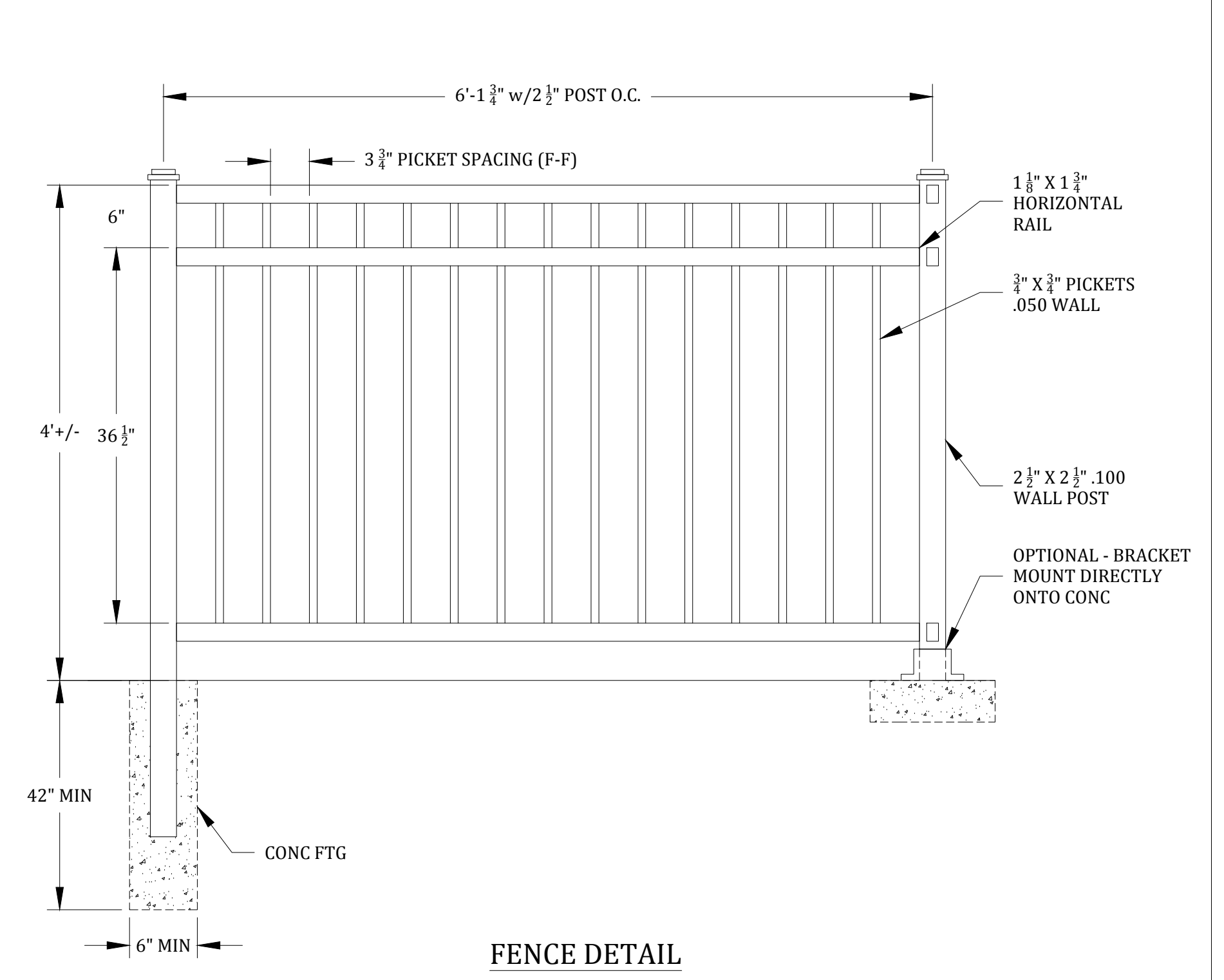


CROSS SECTIONS J-J

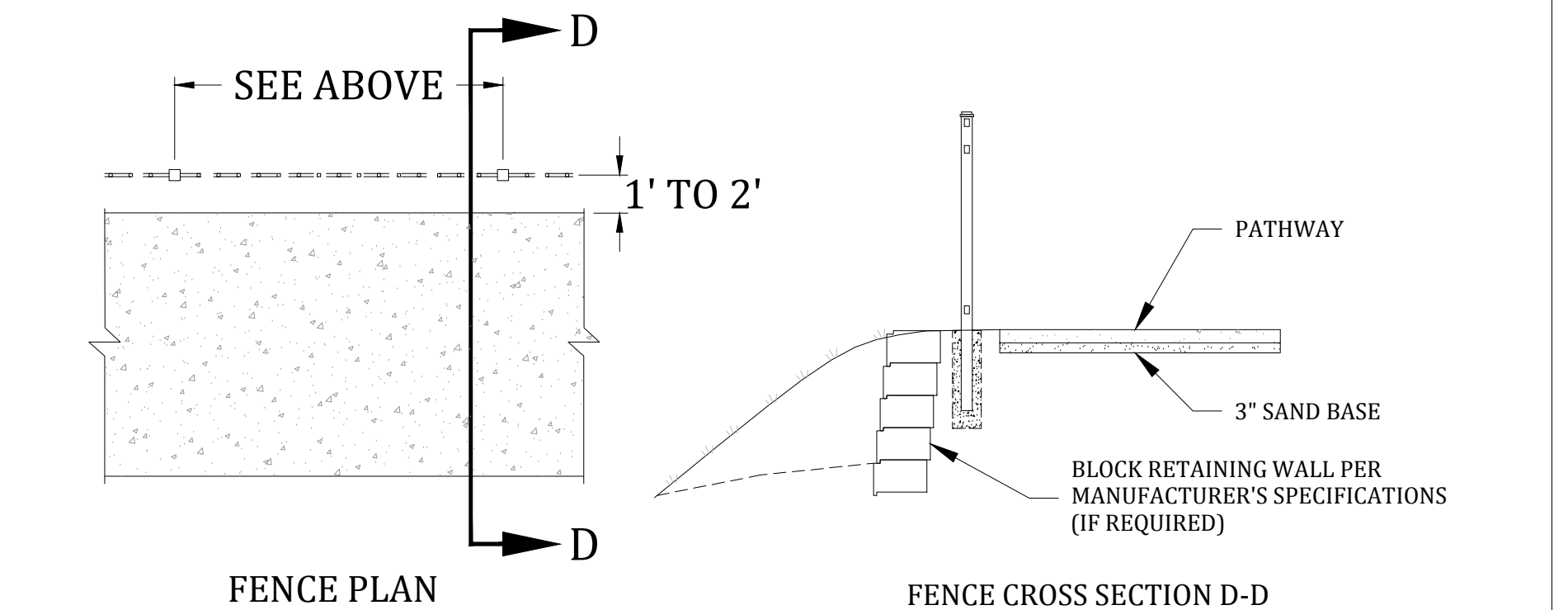
- GENERAL NOTES
1. SIDEWALKS/PATHWAYS SHALL BE 4" THICK CONCRETE EXCEPT AT DRIVEWAYS.
 2. SIDEWALKS/PATHWAYS THRU DRIVES SHALL BE: 6" (RESIDENTIAL); 7" (MULTI-RESIDENTIAL & COMMERCIAL)
 3. 3" OF COMPACTED SAND BASE SHALL BE PLACED UNDER ALL SIDEWALKS/PATHWAYS.
 4. ALL BITUMINOUS APRONS SHALL BE 2 1/2" THICK UNLESS NOTED OTHERWISE
 5. PROPERTY IRONS SHALL BE MAINTAINED BY THE CONTRACTOR.
 6. ALL EXISTING CONCRETE AND BITUMINOUS TO BE REMOVED SHALL BE SAWCUT. ALL CONCRETE AND BITUMINOUS REMOVAL SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
 7. ALL AGGREGATE BASE SHALL BE 22A, 4" THICK.
 8. ALL TREE AND BUSH REMOVAL SHALL BE CONSIDERED PART OF SUB-GRADE PREPARATION.
 9. LOCATION OF NEW PLANT MATERIAL SHALL BE AS DIRECTED BY THE ENGINEER, AND SHALL BE INSTALLED IN ACCORDANCE WITH GUIDELINES ESTABLISHED BY THE A.A.O.N.
 10. ALL PLANT MATERIAL NOT MARKED FOR REMOVAL SHALL BE PROTECTED.
 11. BITUMINOUS DRIVES SHALL BE SAWCUT 18" ON EITHER SIDE OF PROPOSED PATHWAY.



RESIDENTIAL DRIVEWAY SLOPES



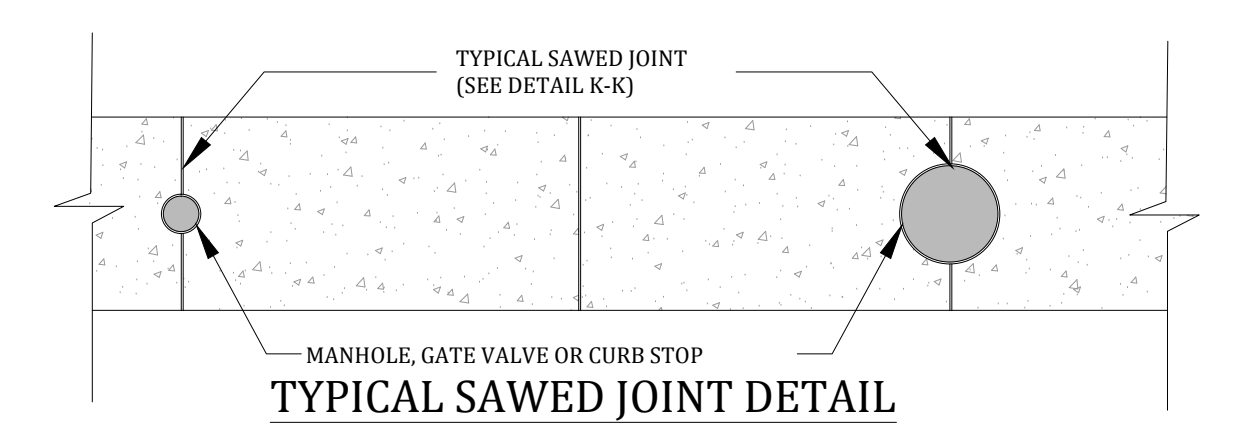
FENCE DETAIL



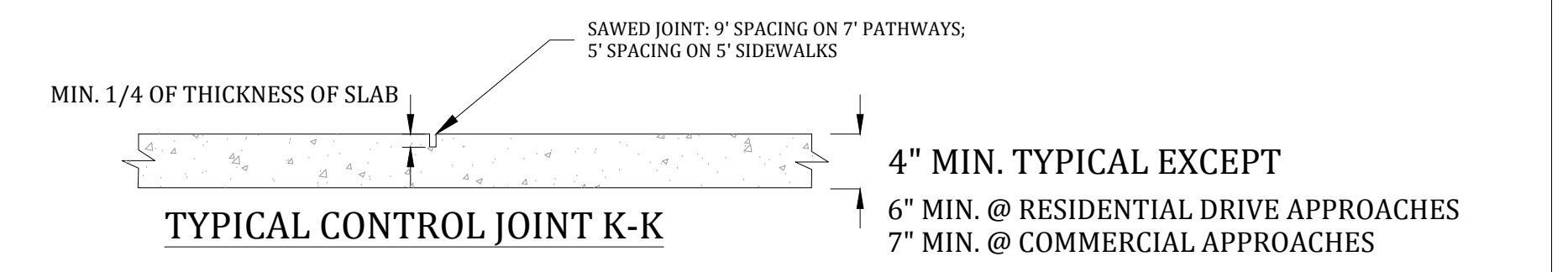
FENCE PLAN

FENCE CROSS SECTION D-D

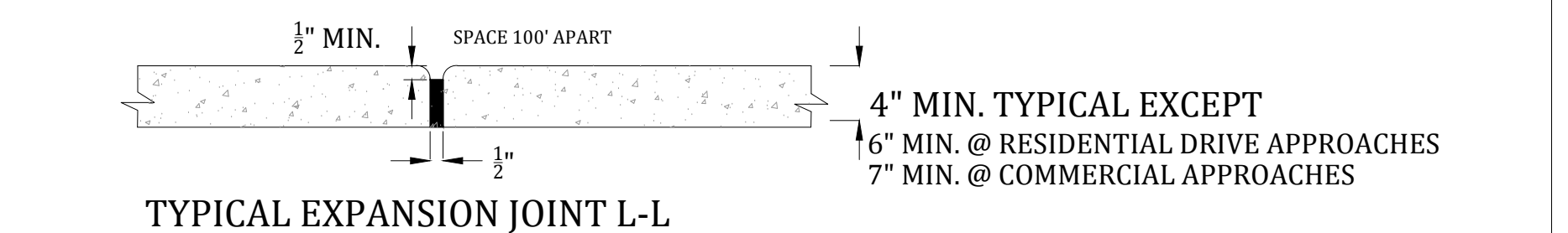
NOTE: FENCE POSTS CAN BE ANCHORED TO THE PATHWAY, THEN PATHWAY MUST BE WIDENED TO EIGHT FEET



TYPICAL SAWED JOINT DETAIL



TYPICAL CONTROL JOINT K-K



TYPICAL EXPANSION JOINT L-L

Meridian Charter Township
Ingham County, Michigan
ENGINEERING

**5' SIDEWALK & 7' PATHWAY
DETAIL SHEET**

REVISIONS:		
DATE:	BY:	COMMENTS:
04/30/03	JG	ADD REBAR TO CURB & GUTTER
08/01/05	JG	CLARIFY RAMP DETAILS
12/20/06	JG	FENCE POST IN PVC PIPE W/SAND
12/29/08	JG	RAMPS W/ DETECTABLE WARNING PLATES
08/14/09	NN	LANDING CROSS SECTIONS
03/18/16	JG	DOWEL DETAIL FOR NEW/EX CONCRETE
01/22/18	NN	SPEC & DETAIL SHEET OVERHAUL
04/12/19	NN	FENCE & RET. WALL REVISION
12/03/20	NN	FENCE REVISION

DRAWN BY: JG 08/01/05 CHECKED BY: YI 08/01/05

SCALE: NONE
PAGE: 7 OF 7
PAGE: PATHWAY DETAIL SHEET 2021.DWG