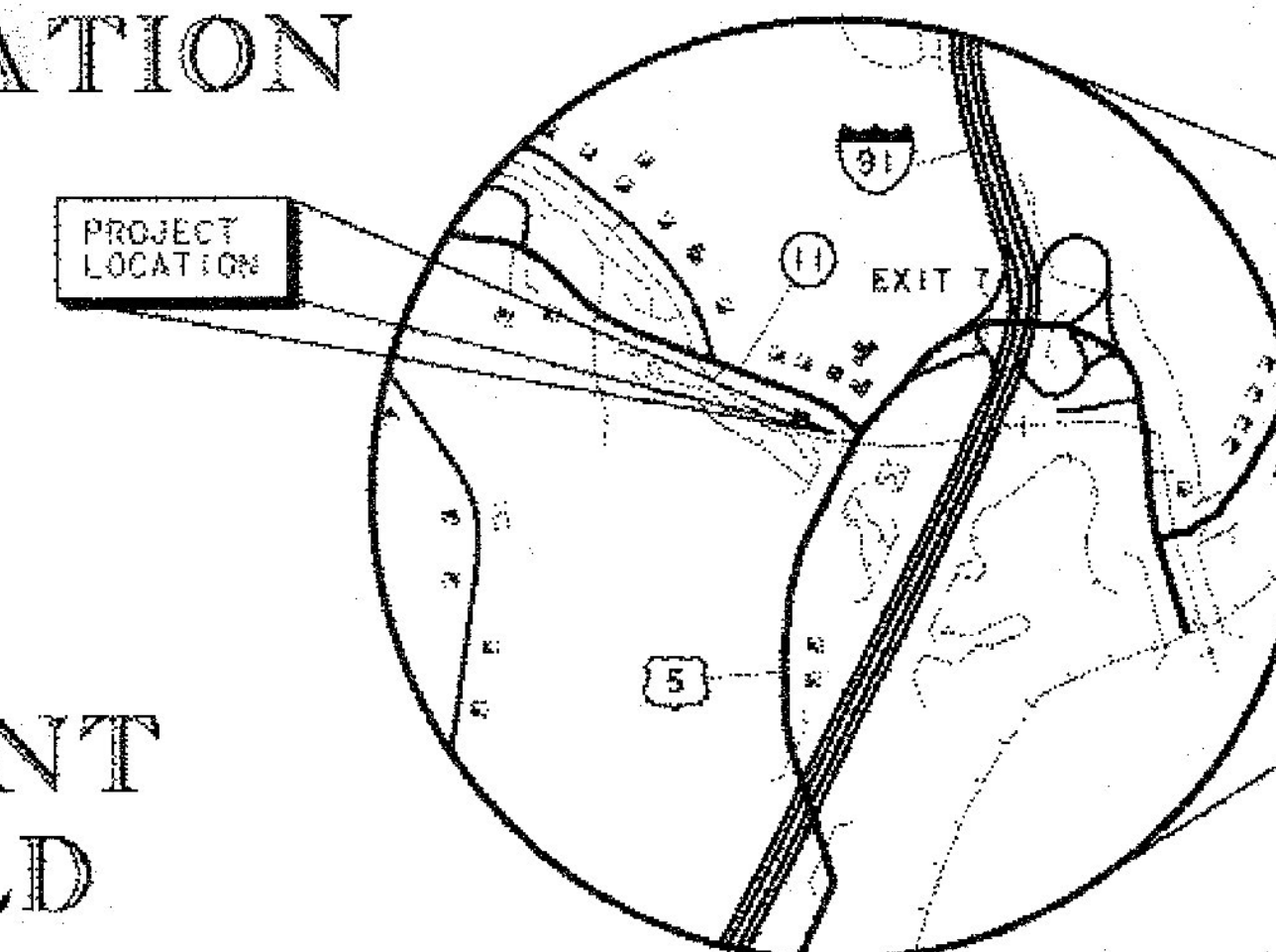


STATE OF VERMONT
AGENCY OF TRANSPORTATION



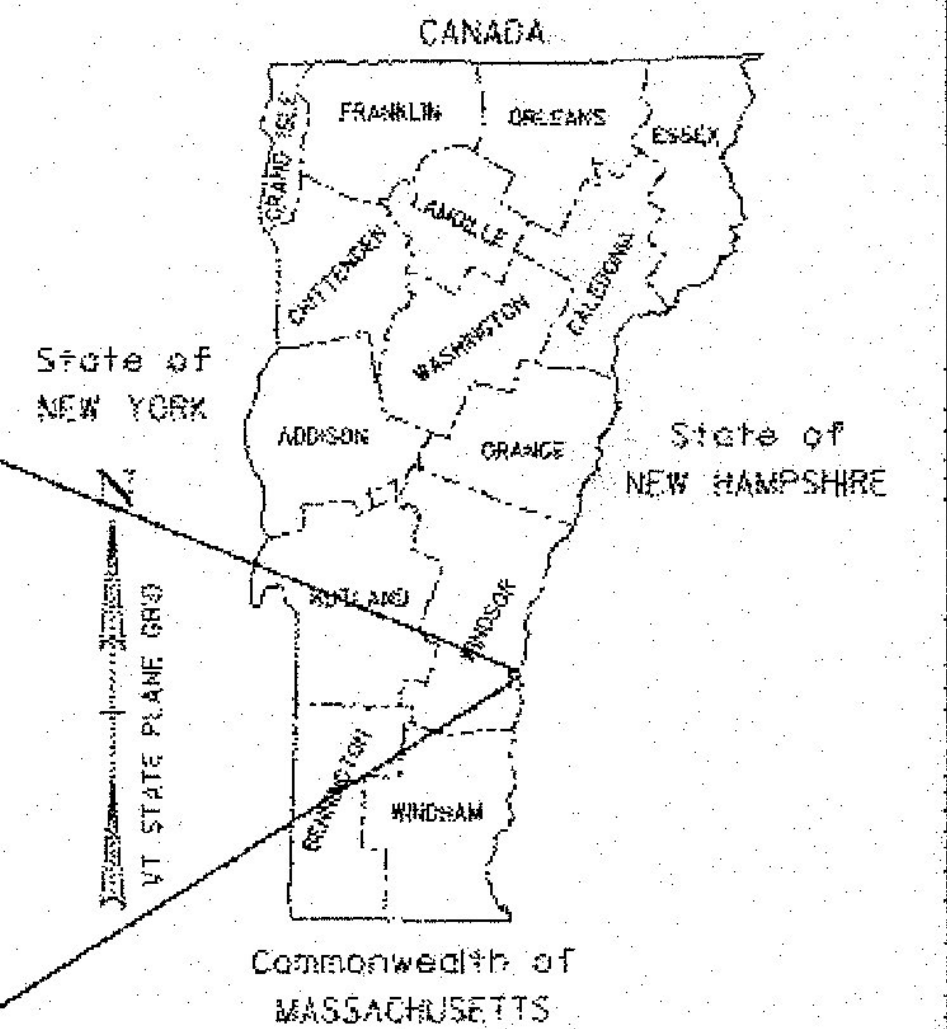
PROPOSED IMPROVEMENT
TOWN OF SPRINGFIELD
COUNTY OF WINDSOR
PARK AND RIDE LOT

THIS PROJECT IS LOCATED ON THE WESTERLY SIDE OF U.S. ROUTE 5 IN THE TOWN OF SPRINGFIELD
AT THE INTERSECTION OF US ROUTE 5 AND VT ROUTE 11.
WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES RECONSTRUCTION OF THE EXISTING PARK-AND-RIDE LOT,
CONSTRUCTING A BUS SHELTER, RELOCATION OF EXISTING SHARED USE PATH, PAVEMENT MARKINGS, LIGHTING
AND OTHER HIGHWAY RELATED ITEMS.

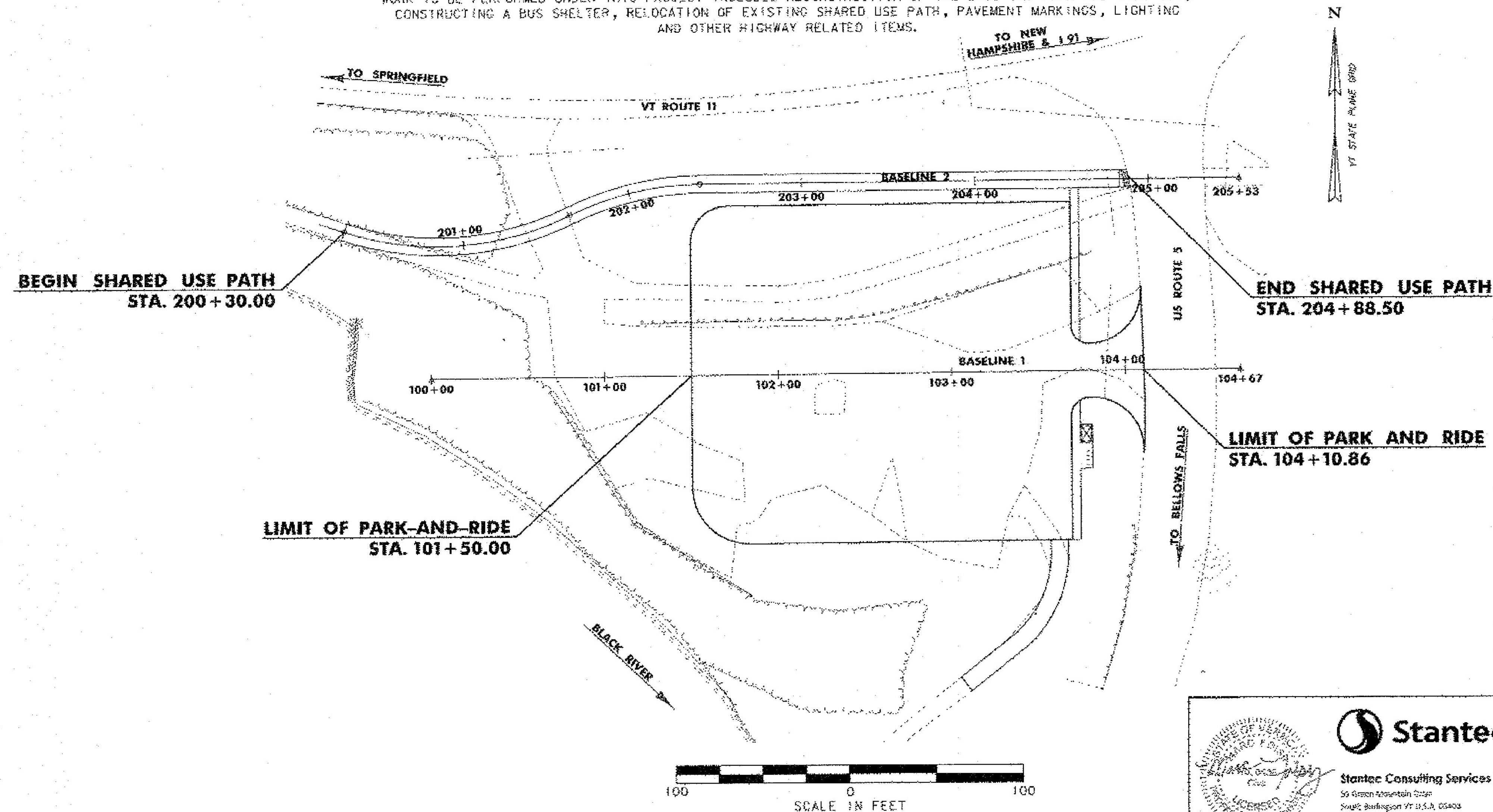


LOCATION MAP

0.33 0 0.33
SCALE IN MILES



RECORD PLANS	
CONTRACTOR:	BAZIN BROTHERS TRUCKING, INC. - WESTMINSTER, VT.
RESIDENT ENGINEER:	RYAN DARLING
CONSTRUCTION BEGAN:	MAY 4, 2015
CONSTRUCTION COMPLETE:	SEPTEMBER 25, 2015
RECORD PLANS BY:	RYAN DARLING & ELISE COOLBETH
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY	RESIDENT ENGINEER
DATE	02/23/2017
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.	

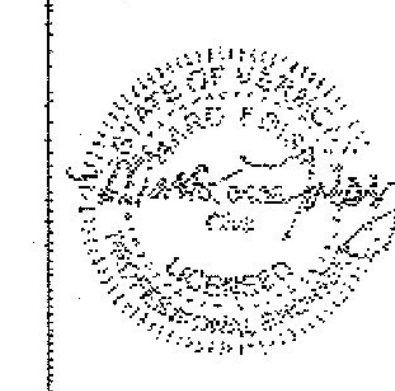


THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011 AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL 3

SURVEYED BY : VSE INC.
SURVEYED DATE : JUNE 2011

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (1996)



Stantec
Stantec Consulting Services Inc.
55 Green Mountain Drive
Suite 200 Burlington VT 05403
Phone: (802) 864-0222
Fax: (802) 864-0222
www.stantec.com

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED DATE 4-25-17
PROJECT MANAGER : TINA BOHL
PROJECT NAME : SPRINGFIELD
PROJECT NUMBER : CMG PARK (32)
SHEET 1 OF 43 SHEETS

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9	EARTHWORK SUMMARY SHEET
10	DRAINAGE DETAIL SHEET
11	SURVEY CONTROL AND TIES
12	LAYOUT PLAN
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14	GRADING AND DRAINAGE PLAN
15	SIGNING AND PAVEMENT MARKING PLAN
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19	SIGN DETAILS
20	LIGHTING AND LANDSCAPING PLAN
21	LIGHTING AND LANDSCAPING DETAILS
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T-30	CONSTRUCTION SIGN DETAILS	08-06-12
T-45	SQUARE TUBE SIGN POST AND ANCHOR	01-02-13

GENERAL NOTES

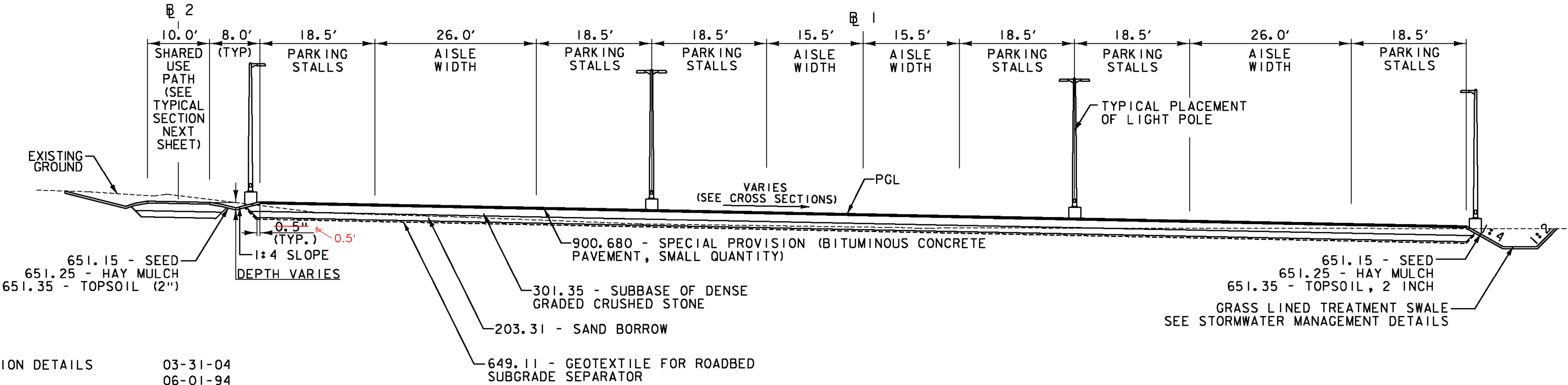
- FOR LIGHT LOCATIONS, SEE LIGHTING PLAN.
- SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD SHEET B-5 UNLESS OTHERWISE NOTED.
- EMULSIFIED ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF PAVEMENT AND ON ALL COLD PLANED SURFACES AT THE RATE OF 0.025 GAL/SY OR AS DIRECTED BY THE ENGINEER.
- SAW CUT PAID INCIDENTAL TO ITEM 900.680 (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY).
- COLD PLANING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 210.
- FOR PG BINDER GRADE SEE BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY OF SECTION 900 OF THE SPECIAL PROVISIONS.

TYPICAL SECTIONS

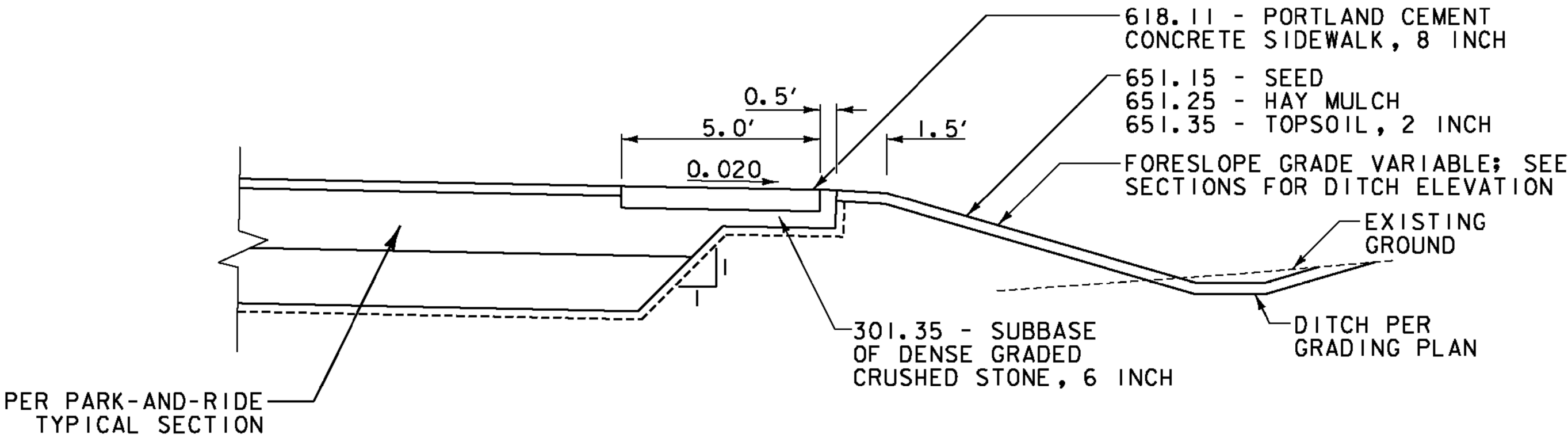
1 1/2" BITUMINOUS CONCRETE PAVEMENT (1 LIFT - TYPE IVS)
3 1/2" BITUMINOUS CONCRETE PAVEMENT (1 LIFT - TYPE IIS)
15" SUBBASE OF DENSE GRADED CRUSHED STONE
12" SAND BORROW
GEOTEXTILE FOR ROADBED SUBGRADE SEPARATOR

MATERIAL ITEM THICKNESS /TOLERANCE

BITUMINOUS CONCRETE PAVEMENT	+/- 1/4"	(TOTAL DEPTH)
DENSE GRADED CRUSHED STONE	+/- 1"	(TOTAL DEPTH)
SAND BORROW	+/- 1"	(TOTAL DEPTH)



PARK-AND-RIDE TYPICAL SECTION
(PERPENDICULAR TO BASELINE 1 AND 2, SEE LAYOUT PLAN)
NOT TO SCALE

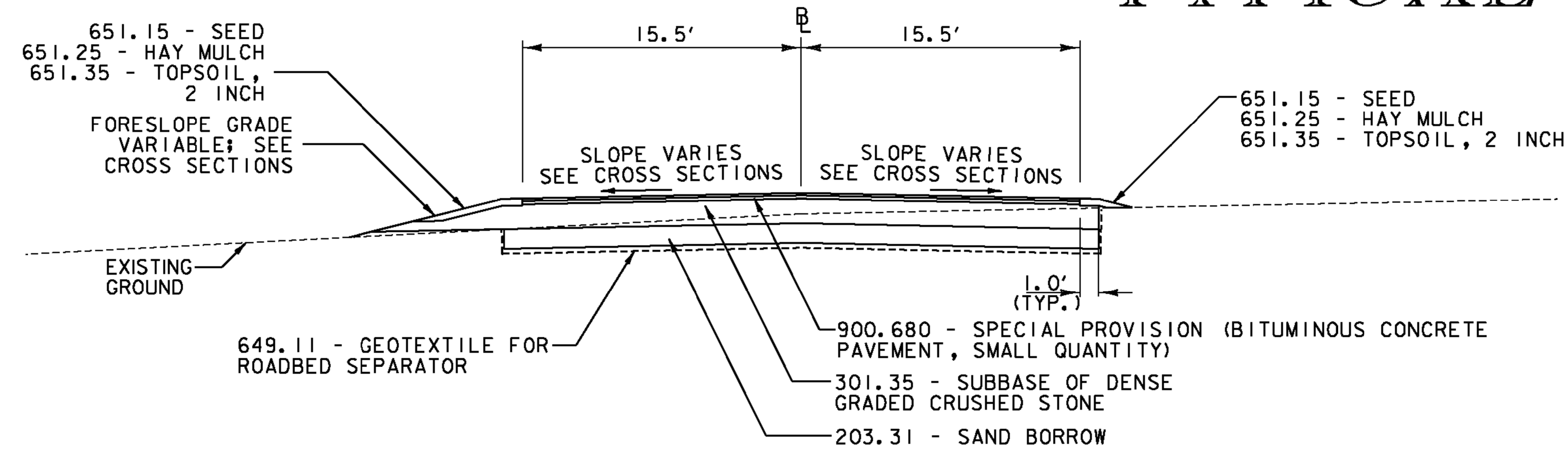


SIDEWALK DETAIL
SECTION A-A
NOT TO SCALE



PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	CMG PARK (32)
FILE NAME:	z09k250+yp.dgn
PROJECT LEADER:	G. SANTY
DESIGNED BY:	I. MAYNARD
TYPICAL SECTIONS SHEET 1	
PLOT DATE:	6/25/2014
DRAWN BY:	I. MAYNARD
CHECKED BY:	M. FOISY
SHEET	2 OF 43

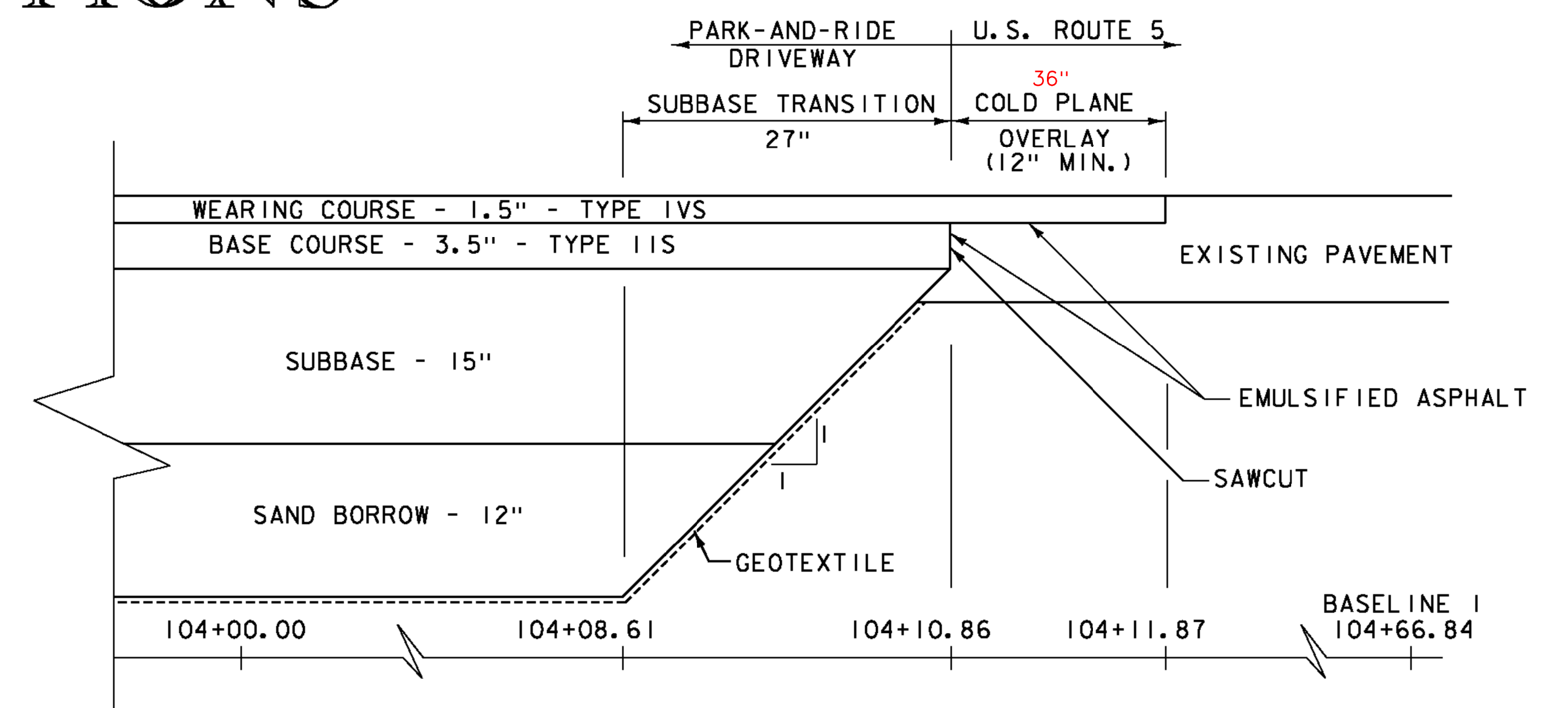
TYPICAL SECTIONS



PARK-AND-RIDE DRIVEWAY ENTRANCE TYPICAL SECTION (ALONG BASELINE 1)

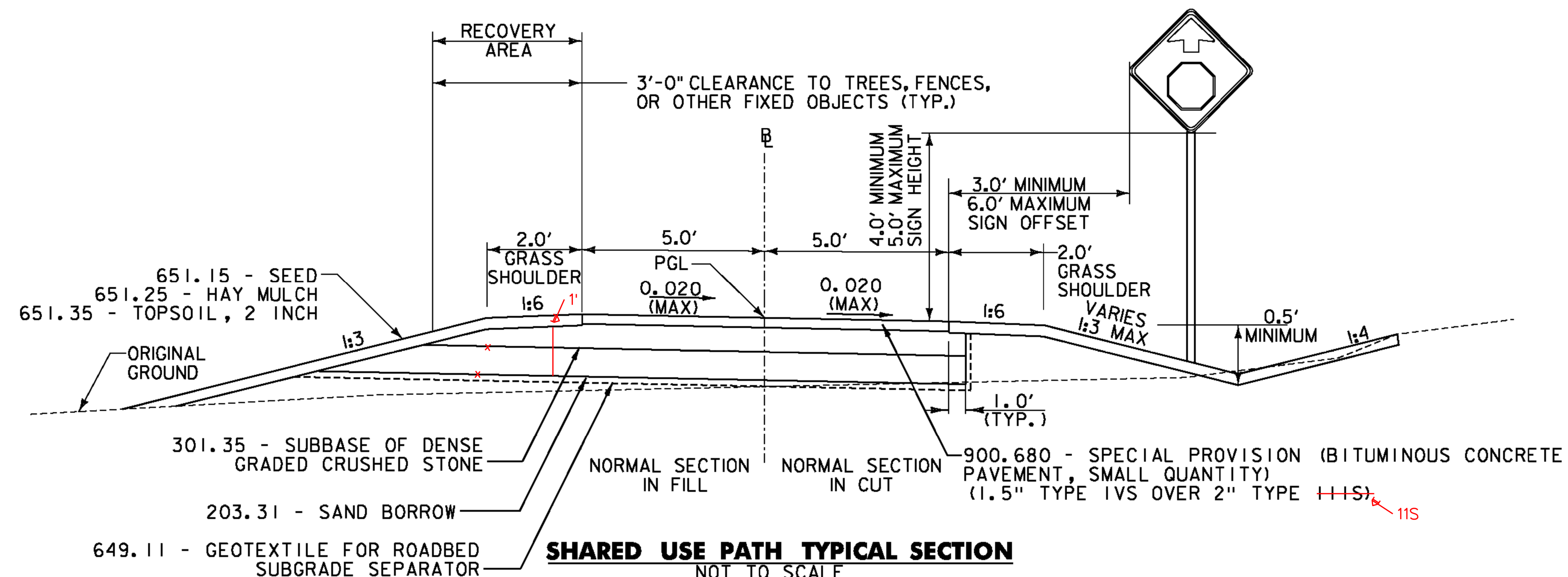
NOT TO SCALE

1 1/2" BITUMINOUS CONCRETE PAVEMENT (1 LIFT - TYPE IVS)
 3 1/2" BITUMINOUS CONCRETE PAVEMENT (1 LIFT - TYPE IIS)
 15" SUBBASE OF DENSE GRADED CRUSHED STONE 2 LIFTS
 12" SAND BORROW
 GEOTEXTILE FOR ROADBED SEPARATOR



PAVEMENT & SUBBASE TRANSITION TYPICAL (DRIVEWAY)

NOT TO SCALE



SHARED USE PATH TYPICAL SECTION

NOT TO SCALE

3 1/2" BITUMINOUS CONCRETE PAVEMENT (1.5" TYPE IVS OVER 2" TYPE ~~III~~ S)
8" SUBBASE OF DENSE GRADED CRUSHED STONE
12" SAND BORROW
GEOTEXTILE FOR ROADBED SUBGRADE SEPARATOR

SEEDING FORMULA: LOW GROW / FINE FESCUE				
	LBS/AC			
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %
37.6%	75.2	94	CREEPING RED FESCUE/DEN	90%
28.4%	56.8	71	SPARTAN HARD FESCUE	85%
14.4%	28.8	36	AZAY SHEEPS FESCUE	87%
14.2%	28.4	35.5	ANNUAL RYEGRASS	90%
1.0%	2	2.5	CROP	
4.3%	8.6	10.8	INERT	
0.1%	0.2	0.2	WEED	
100%	200	250		

PERCENT OF SEED, CROP, WEED OR INERT MAY VARY +/- 2%. VARIETIES OF GRASSES MAY BE SUBSTITUTED ONLY WITH APPROVAL FROM RESIDENT ENGINEER.

MOWING: RECOMMENDED EARLY MOWING ONCE OR TWICE WHEN GRASS REACHES 6 INCHES HEIGHT MAXIMUM TO PREVENT BROADLEAF WEED COMPETITION DURING ESTABLISHMENT PERIOD.

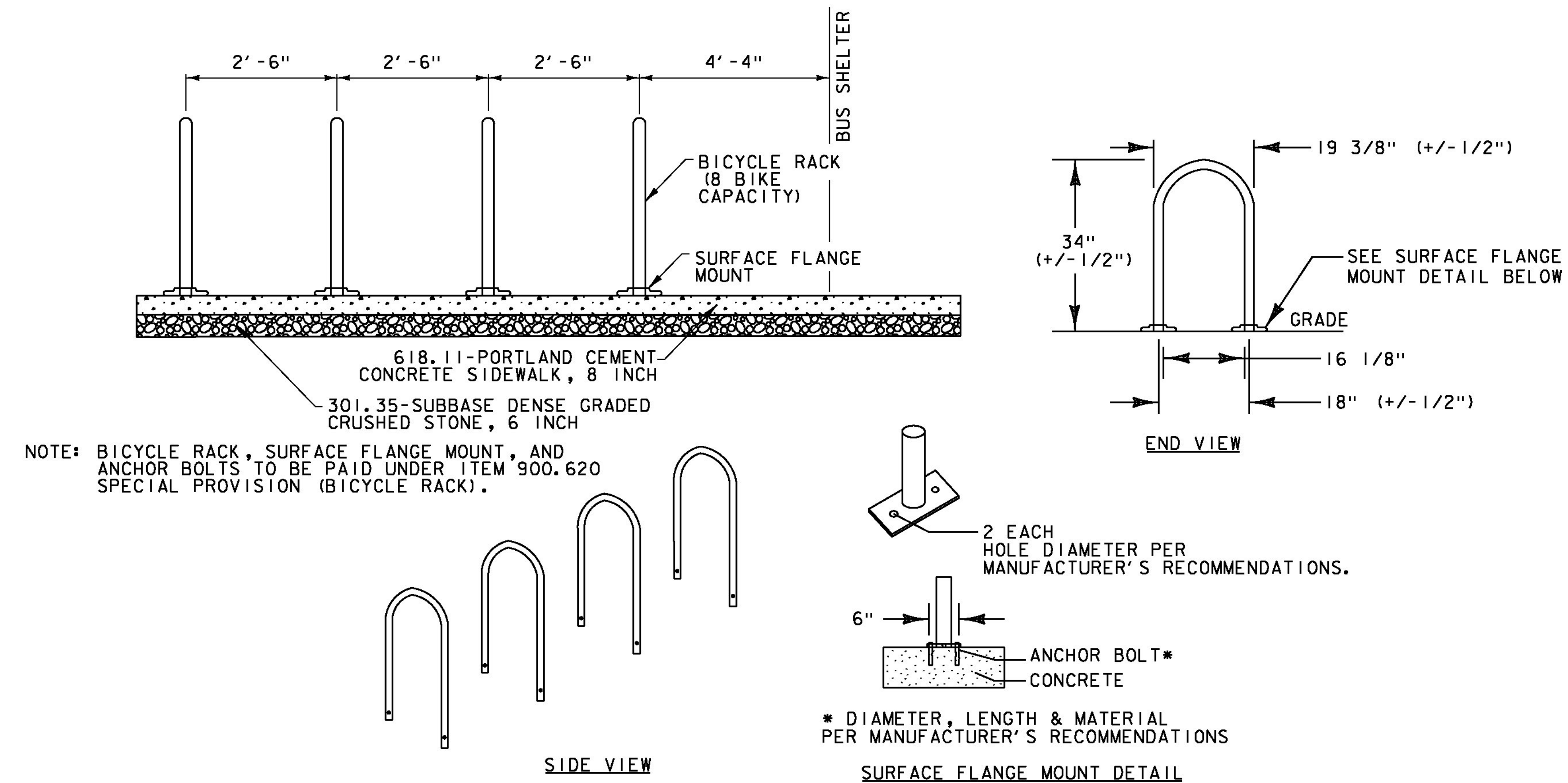
FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.

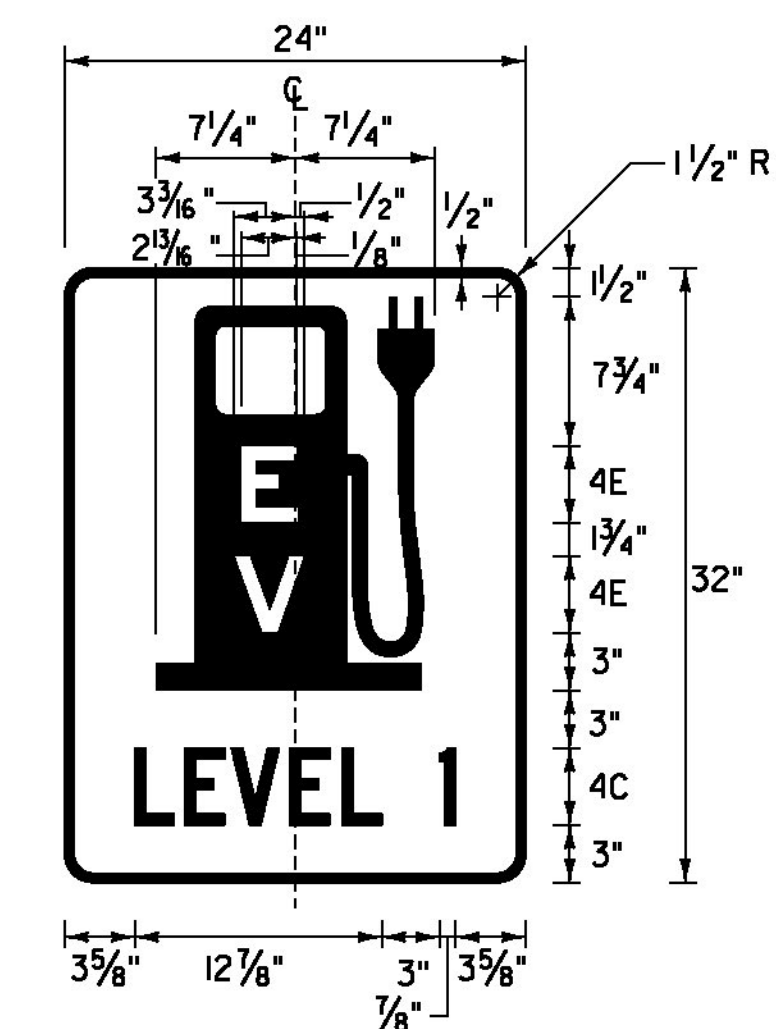
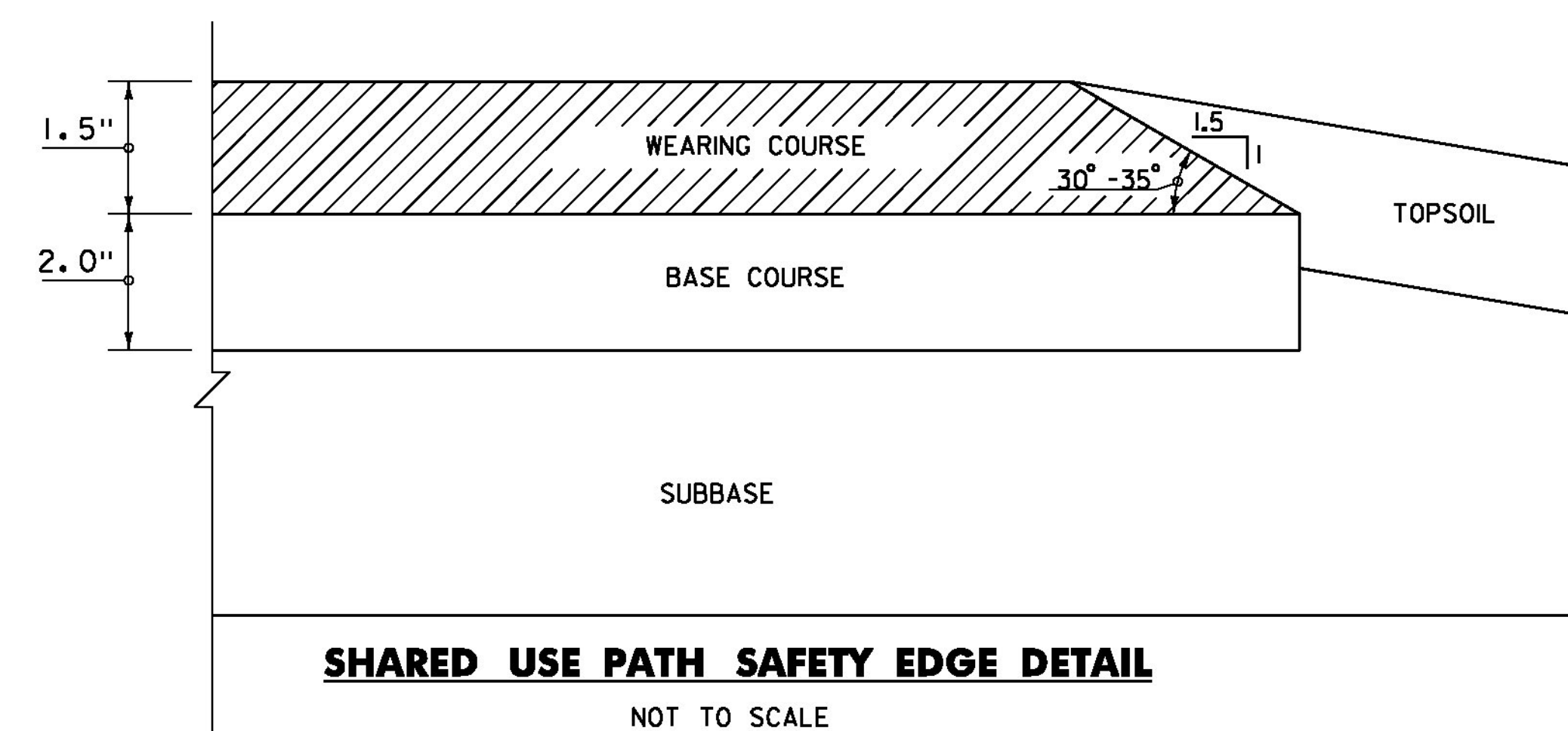
TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED

TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.



SPECIAL PROVISION (BICYCLE RACK) DETAIL
NOT TO SCALE



PROJECT NAME:	SPRINGFIELD	FILE NAME:	z09k250+yp.dgn	PLOT DATE:	6/25/2014
PROJECT NUMBER:	CMG PARK (32)	PROJECT LEADER:	G. SANTY	DRAWN BY:	I. MAYNARD
		DESIGNED BY:	I. MAYNARD	CHECKED BY:	M. FOISY
		TYPICAL SECTIONS SHEET 3		SHEET	4 OF 43

GENERAL INFORMATION

SYMBOLGY LEGEND NOTE

THE SYMBOLGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLGY. THE SYMBOLGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

R. O. W. ABBREVIATIONS (CODES) & SYMBOLS

POINT	CODE	DESCRIPTION
	CH	CHANNEL EASEMENT
	CONST	CONSTRUCTION EASEMENT
	CUL	CULVERT EASEMENT
	D&C	DISCONNECT & CONNECT
	DIT	DITCH EASEMENT
	DR	DRAINAGE EASEMENT
	DRIVE	DRIVEWAY EASEMENT
	EC	EROSION CONTROL
	HWY	HIGHWAY EASEMENT
	I&M	INSTALL & MAINTAIN EASEMENT
	LAND	LANDSCAPE EASEMENT
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
	■	BNDNS
	▣	BNDNS
	●	IPNS
	◎	IPNS
	⊠	CALC
	○	PROW
	[LENGTH]	LENGTH CARRIED ON NEXT SHEET

COMMON TOPOGRAPHIC POINT SYMBOLS

POINT	CODE	DESCRIPTION
⊠	APL	BOUND APPARENT LOCATION
▣	BM	BENCH MARK
▣	BND	BOUND
▣	CB	CATCH BASIN
⊠	COMB	COMBINATION POLE
▣	DITHR	DROP INLET THROATED DNC
⊠	EL	ELECTRIC POWER POLE
⊠	FPOLE	FLAGPOLE
⊠	GASFIL	GAS FILLER
⊠	GP	GUIDE POST
⊠	GSO	GAS SHUT OFF
⊠	GUY	GUY POLE
⊠	GUYW	GUY WIRE
⊠	GV	GATE VALUE
⊠	H	TREE HARDWOOD
⊠	HCTRL	CONTROL HORIZONTAL
⊠	HVCTRL	CONTROL HORIZ. & VERTICAL
⊠	HYD	HYDRANT
⊠	IP	IRON PIN
⊠	IPIPE	IRON PIPE
⊠	LI	LIGHT - STREET OR YARD
⊠	MB	MAILBOX
⊠	MH	MANHOLE (MH)
⊠	MM	MILE MARKER
⊠	PM	PARKING METER
⊠	PMK	PROJECT MARKER
⊠	POST	POST STONE/WOOD
⊠	RRSIG	RAILROAD SIGNAL
⊠	RRSL	RAILROAD SWITCH LEVER
⊠	S	TREE SOFTWOOD
⊠	SAT	SATELLITE DISH
⊠	SHRUB	SHRUB
⊠	SIGN	SIGN
⊠	STUMP	STUMP
⊠	TEL	TELEPHONE POLE
⊠	TIE	TIE
⊠	TSIGN	SIGN W/DOUBLE POST
⊠	VCTRL	CONTROL VERTICAL
⊠	WELL	WELL
⊠	WSO	WATER SHUT OFF

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

PROPOSED GEOMETRY CODES

CODE	DESCRIPTION
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (100FT)
R	CURVE RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

UTILITY SYMBOLGY

UNDERGROUND UTILITIES

— UT —	—	TELEPHONE
— UE —	—	ELECTRIC
— UC —	—	CABLE (TV)
— UEC —	—	ELECTRIC+CABLE
— UET —	—	ELECTRIC+TELEPHONE
— UCT —	—	CABLE+TELEPHONE
— UECT —	—	ELECTRIC+CABLE+TELEP.
— G —	—	GAS LINE
— W —	—	WATER LINE
— S —	—	SANITARY SEWER (SEPTIC)

ABOVE GROUND UTILITIES (AERIAL)

— T —	—	TELEPHONE
— E —	—	ELECTRIC
— C —	—	CABLE (TV)
— EC —	—	ELECTRIC+CABLE
— ET —	—	ELECTRIC+TELEPHONE
— AER E&T —	—	ELECTRIC+TELEPHONE
— CT —	—	CABLE+TELEPHONE
— ECT —	—	ELECTRIC+CABLE+TELEP.
—	—	UTILITY POLE GUY WIRE

PROJECT CONSTRUCTION SYMBOLGY

PROJECT DESIGN & LAYOUT SYMBOLGY

—	—	CLEAR ZONE
—	—	PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

—	—	TOP OF CUT SLOPE
—	—	TOE OF FILL SLOPE
—	—	STONE FILL
—	—	BOTTOM OF DITCH 'L
—	—	CULVERT PROPOSED
—	—	STRUCTURE SUBSURFACE
—	—	PROJECT DEMARCATION FENCE
—	—	BARRIER FENCE
—	—	TREE PROTECTION ZONE (TPZ)
—	—	STRIPING LINE REMOVAL
—	—	SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLGY

BOUNDARY LINES

—	—	TOWN BOUNDARY LINE
—	—	COUNTY BOUNDARY LINE
—	—	STATE BOUNDARY LINE
—	—	PROPOSED STATE R.O.W. (LIMITED ACCESS)
—	—	PROPOSED STATE R.O.W.
—	—	STATE ROW (LIMITED ACCESS)
—	—	STATE ROW
—	—	TOWN ROW
—	—	PERMANENT EASEMENT LINE (P)
—	—	TEMPORARY EASEMENT LINE (T)
—	—	SURVEY LINE
—	—	PROPERTY LINE (P/L)
—	—	SLOPE RIGHTS
—	—	6F PROPERTY BOUNDARY
—	—	4F PROPERTY BOUNDARY
—	—	HAZARDOUS WASTE

EPSC LAYOUT PLAN SYMBOLGY

EPSC MEASURES

—	—	FILTER CURTAIN
—	—	SILT FENCE
—	—	SILT FENCE WOVEN WIRE
—	—	CHECK DAM
—	—	DISTURBED AREAS
—	—	REQUIRING RE-VEGETATION
—	—	EROSION MATTING

ENVIRONMENTAL RESOURCES

—	—	WETLAND BOUNDARY
—	—	RIPARIAN BUFFER ZONE
—	—	WETLAND BUFFER ZONE
—	—	SOIL TYPE BOUNDARY
—	—	THREATENED & ENDANGERED SPECIES
—	—	HAZARDOUS WASTE AREA
—	—	AGRICULTURAL LAND
—	—	FISH & WILDLIFE HABITAT
—	—	FLOOD PLAIN
—	—	ORDINARY HIGH WATER (OHW)
—	—	STORM WATER
—	—	USDA FOREST SERVICE LANDS
—	—	WILDLIFE HABITAT SUIT/CONN

ARCHEOLOGICAL & HISTORIC

—	—	ARCHEOLOGICAL BOUNDARY
—	—	HISTORIC DISTRICT BOUNDARY
—	—	HISTORIC AREA
—	—	HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLGY

EXISTING FEATURES

—	—	ROAD EDGE PAVEMENT
—	—	ROAD EDGE GRAVEL
—	—	DRIVEWAY EDGE
—	—	DITCH
—	—	FOUNDATION
—	—	FENCE (EXISTING)
—	—	FENCE WOOD POST
—	—	FENCE STEEL POST
—	—	GARDEN
—	—	ROAD GUARDRAIL
—	—	RAILROAD TRACKS
—	—	CULVERT (EXISTING)
—	—	STONE WALL
—	—	WALL
—	—	WOOD LINE
—	—	BRUSH LINE
—	—	HEDGE
—	—	BODY OF WATER EDGE
—	—	LEDGE EXPOSED

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09K250frm.dgn
PROJECT LEADER: VAOT
DESIGNED BY: VAOT
PLOT DATE: 6/25/2014
DRAWN BY: VAOT
CHECKED BY: VAOT

CONVENTIONAL SYMBOLGY - LEGEND SHEET SHEET 5 OF 43

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES												TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
								ROADWAY	LANDSCAPING	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
								1				1	1	LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-			
								6900				6900	7117.1	CY	COMMON EXCAVATION	203.15	47			
								225				225	222	CY	EXCAVATION OF SURFACES AND PAVEMENTS	203.28	6			
								1850				1850	1652.6	CY	SAND BORROW	203.31	18			
								94				94	81.7	CY	TRENCH EXCAVATION OF EARTH	204.20	1			
								1				1	0	CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-			
								11				11	29.2	SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	0.6			
								2300				2300	2311.3	CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	49			
								10				10	17.5	CY	AGGREGATE SURFACE COURSE	401.10	0.1			
								23				23	22.18	CWT	EMULSIFIED ASPHALT	404.65	1			
								1				1	-5224.04	LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-			
								120				120	138.72	LB	REINFORCING STEEL, LEVEL I	507.11	1			
								1				1	10	GAL	WATER REPELLENT, SILANE	514.10	EST.			
								2				2	1.94	CY	CONCRETE, CLASS B	541.25	0.5			
								30				30	28	LF	15" CPEP(SL)	601.2610	-			
								42				42	33.5	LF	18" CPEP(SL)	601.2615	-			
								2				2	2	EACH	15" CPEPES	601.7010	-			
								2				2	2	EACH	18" CPEPES	601.7015	-			
								1				1	1	EACH	CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES	604.40	-			
								1				1	0	EACH	CAST IRON COVER WITH FRAME	604.55	-			
								1				1	5	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.			
								10				10	0	HR	POWER BROOM RENTAL, TYPE I	608.30	EST.			
								1				1	7.5	HR	TRUCK RENTAL	608.37	EST.			
								155				155	0.3	MGAL	DUST CONTROL WITH WATER	609.10	2			
								23				23	18	CY	STONE FILL, TYPE I	613.10	0.5			
								115				115	109	SY	PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH	618.11	5			
								20				20	16	SF	DETECTABLE WARNING SURFACE	618.30	-			
								3				3	3	EACH	BOLLARDS	619.14	-			
								4				4	4	EACH	YIELDING MARKER POSTS	619.17	-			
								645				645	641.3	LF	CHAIN-LINK FENCE, 4 FEET	620.11	5			
								8				8	10	EACH	BRACING ASSEMBLY FOR CHAIN-LINK FENCE, 4 FEET	620.20	-			
								435				435	425	LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	-			
								9				9	9	EACH	REMOVAL AND DISPOSAL OF GUIDE POSTS	621.81	-			
								10				10	0	HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.			
								100				100	0	HR	FLAGGERS	630.15	EST.			
											1	1	1	LS	FIELD OFFICE, ENGINEERS	631.10	-			
											1	1	1	LS	TESTING EQUIPMENT, CONCRETE	631.16	-			
											1	1	1	LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-			
											3000	3000	818.41	DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	-			
								1				1	1	LS	MOBILIZATION/DEMOBILIZATION	635.11	-			



QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES												TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
								ROADWAY	LANDSCAPING	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
								1				1	1	LS	TRAFFIC CONTROL	641.10	-			
								3				3	3	EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-			
								42				42	42	DAY	PORTABLE CHANGEABLE MESSAGE SIGN RENTAL	641.17	EST.			
								3700				3700	-	LF	DURABLE 4 INCH WHITE LINE, EPOXY PAINT	646.403	86			
								420				420	-	LF	DURABLE 4 INCH YELLOW LINE, EPOXY PAINT	646.413	2			
								10				10	-	LF	DURABLE 12 INCH WHITE LINE, EPOXY PAINT	646.463	-			
								29				29	-	LF	DURABLE 24 INCH STOP BAR, EPOXY PAINT	646.483	-			
								24				24	-	EACH	DURABLE LETTER OR SYMBOL, EPOXY PAINT	646.493	-			
								6050				6050	6279	SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	33			
								85				85	68	SY	GEOTEXTILE UNDER STONE FILL	649.31	3			
										145		145	91	SY	GEOTEXTILE FOR SILT FENCE	649.51	3			
										100		100	196	LB	SEED	651.15	2			
										620		620	500	LB	FERTILIZER	651.18	5			
										2.5		2.5	0.27	TON	AGRICULTURAL LIMESTONE	651.20	-			
										2.8		2.8	1.97	TON	HAY MULCH	651.25	0.1			
										660		660	340.2	CY	TOPSOIL	651.35	7			
										1		1	1	LS	EPSC PLAN	652.10	-			
										60		60	22	HR	MONITORING EPSC PLAN	652.20	EST.			
										1		1	0	LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30	-			
										2000		2000	1364	SY	TEMPORARY EROSION MATTING	653.20	15			
										60		60	5.95	CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25	1			
										65		65	15.9	CY	VEHICLE TRACKING PAD	653.35	5			
										4		4	2	EACH	INLET PROTECTION DEVICE, TYPE I	653.40	-			
										640		640	1048	LF	BARRIER FENCE	653.50	5			
										150		150	170	LF	PROJECT DEMARCATION FENCE	653.55	2			
									7			7	7	EACH	DECIDUOUS TREES (ACER RUBRUM)(B&B)(2.5-3" CAL.)	656.30	-			
									20			20	7.5	CY	LANDSCAPE BACKFILL, TRUCK MEASUREMENT	656.80	1			
								163				163	163.69	SF	TRAFFIC SIGNS, TYPE A	675.20	0.78			
								210				210	186	LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	-			
								11				11	13	EACH	REMOVING SIGNS	675.50	-			
								2				2	4	EACH	ERECTING SALVAGED SIGNS	675.60	-			
								1198				1198	1170.3	LF	WIRED CONDUIT (2")(PVC)(SCH. 80)	678.23	-			
								112				112	114.1	LF	WIRED CONDUIT (3")(PVC)(SCH. 80)	678.23				
								4				4	4	EACH	JUNCTION BOX	678.26	-			
								147				147	134.3	LF	ELECTRICAL CONDUIT SLEEVE (4")(PVC)(SCH. 80)	678.30	-			
								14				14	14	EACH	LIGHT POLE BASE	679.21	-			
								14				14	14	EACH	LIGHT POLE	679.45	-			
								1				1	1	EACH	POWER DROP STANCHION, STREET LIGHTING	679.55	-			
								1				1	-13092.3	LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-			
								1				1	1	EACH	SPECIAL PROVISION (BICYCLE RACK)	900.620	-			



QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES												TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
								ROADWAY	LANDSCAPING	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
								18	18			18	18	EACH	SPECIAL PROVISION (ELECTRIC VEHICLE OUTLET, LEVEL 1)	900.620	-			SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)
								20	20			20	20	EACH	SPECIAL PROVISION (LUMINAIRE, LED)	900.620	-	995.9	TON	PARKING LOT & ENTRANCE (TYPE IIS)
								3	3			3	3	EACH	SPECIAL PROVISION (REMOVE EXISTING LIGHT POLE)	900.620	-	503.88	TON	PARKING LOT & ENTRANCE (TYPE IVS)
								1	1			1	1	LS	SPECIAL PROVISION (BUS SHELTER)	900.645	-	76.12	TON	SHARED USE PATH (TYPE IIS)
								1	0			1	0	LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY)(N.A.B.I.)	900.650	-	46.5	TON	SHARED USE PATH (TYPE IVS)
								1	0			1	0	LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT)	900.650	-	0.0	TON	ROUNDING
								1600	1622.4			1600	1622.4	TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680	30	1600	TON	TOTAL
								0				0	1	LS	SUPPLEMENTAL AGREEMENT (TEMPORARY PARK AND RIDE TRAFFIC CONTROL) (ITEM ADDED WITH COD 001)	900.545	-	1622.4		
								0				0	4.25	CY	CONCRETE, CLASS D (MOD. - FLOWABLE FILL) (ITEM ADDED WITH COD 002)	541.31	-			
								0				0	5	EACH	LETTER AND SYMBOL, WATERBORNE PAINT (ITEM ADDED WITH COD 004)	646.301	-			
								0				0	3776	LF	DURABLE 4 IN WHITE LINE, POLYUREA (ITEM ADDED WITH COD 004)	646.404	-			
								0				0	437	LF	DURABLE 4 IN YELLOW LINE, POLYUREA (ITEM ADDED WITH COD 004)	646.414	-			
								0				0	10	LF	DURABLE 12 IN WHITE LINE, POLYUREA (ITEM ADDED WITH COD 004)	646.464	-			
								0				0	26.5	LF	DURABLE 24 IN STOP BAR, POLYUREA (ITEM ADDED WITH COD 004)	646.484	-			
								0				0	20	EACH	DURABLE LETTER OR SYMBOL, POLYUREA (ITEM ADDED WITH COD 004)	646.494	-			
								0				0	1	LS	SUPPLEMENTAL AGREEMENT (678.26 JUNCTION BOX (MOD)) (ITEM ADDED WITH COD 005)	900.545	-			
								0				0	1	LS	SUPPLEMENTAL AGREEMENT (679.45LIGHT POLE (MOD))	900.545	-			



STATE OF VERMONT
AGENCY OF TRANSPORTATION

EARTHWORKS

EARTHWORKS

[illegible]

PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	CMG PARK (32)

FILE NAME: z09K250frm.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
EARTHWORK SUMMARY SHEET

PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 9 OF 43



DRAINAGE DETAIL SHEET

PROJECT NAME: SPRINGFIELD	
PROJECT NUMBER: CMG PARK (32)	
FILE NAME: z09K250frm.dgn	PLOT DATE: 6/25/2014
PROJECT LEADER: G. SANTY	DRAWN BY: L. MAYNARD
DESIGNED BY: I. MAYNARD	CHECKED BY: M. FOISY
DRAINAGE DETAIL SHEET	SHEET 10 OF 43

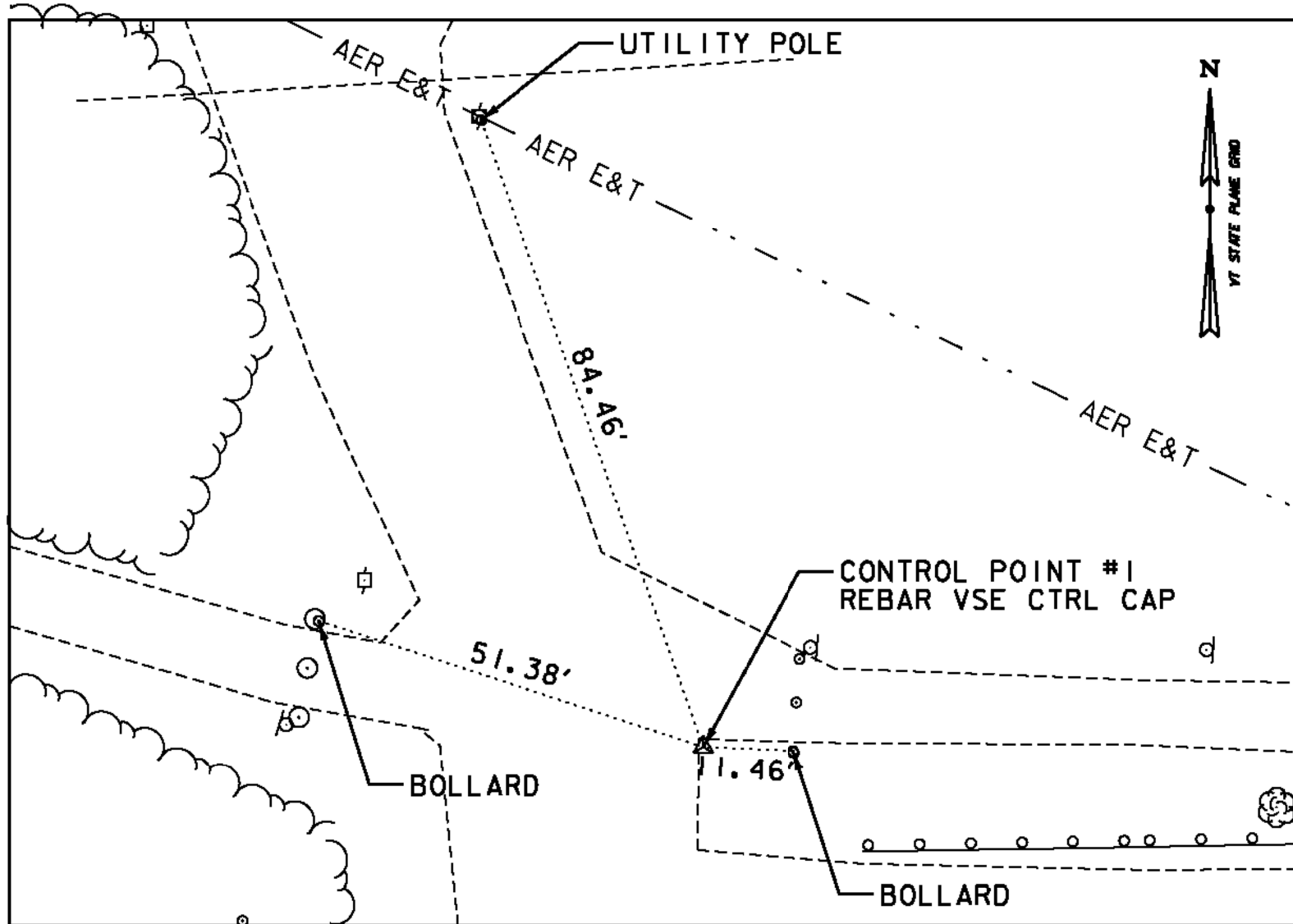


LAYOUT POINT SUMMARY

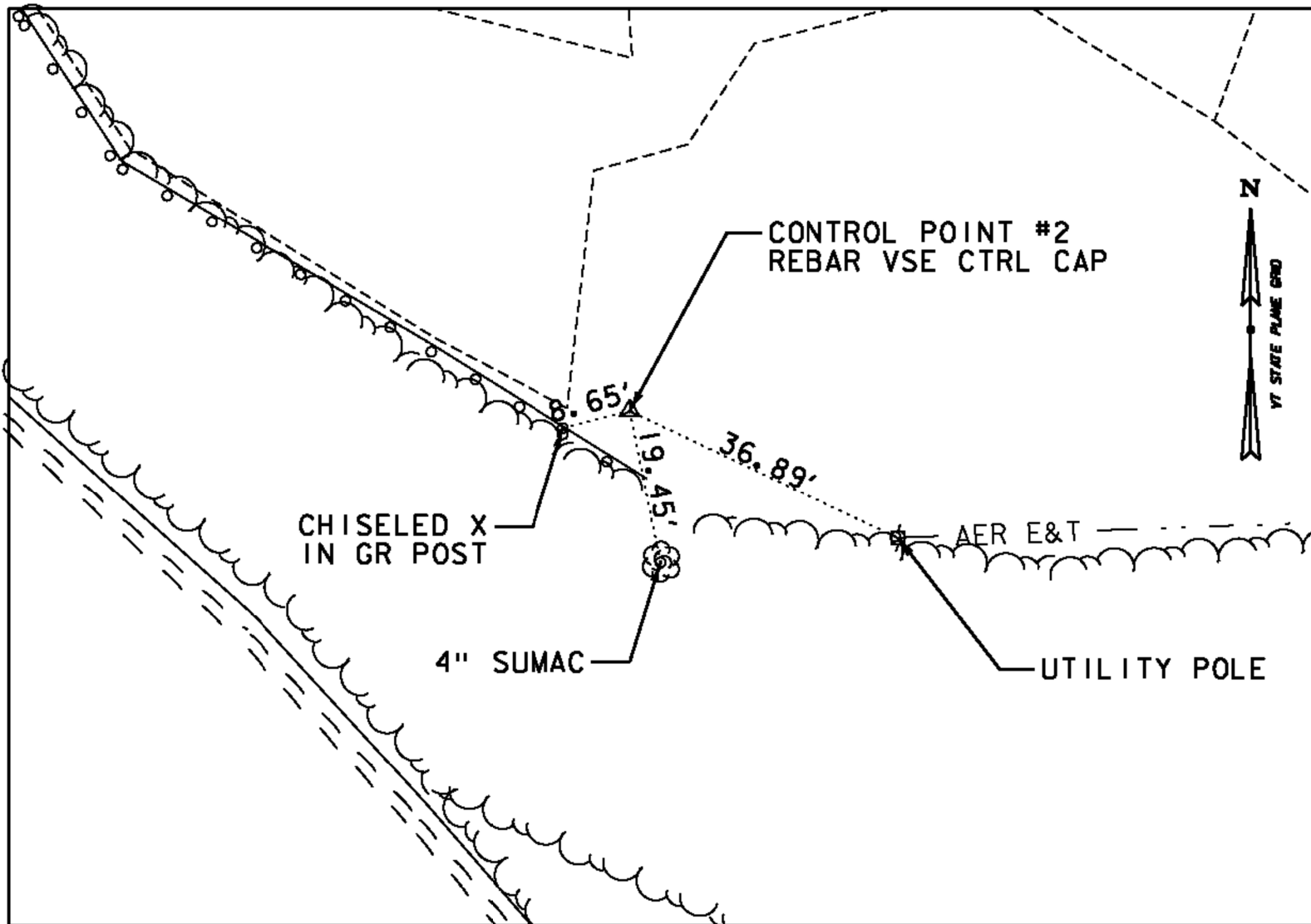
LEGEND: LP#X = LAYOUT POINT #X

LAYOUT POINT	DESCRIPTION	COORDINATES	STATION
1	PC OF 21' RADIUS	N 278592.41 E 1656799.65	BASELINE I STA. 101+50.00, 76.00' LT.
2	CENTER OF 21' RADIUS	N 278592.59 E 1656820.65	BASELINE I STA. 101+71.00, 76.00' LT.
3	PT OF 21' RADIUS	N 278613.59 E 1656820.47	BASELINE I STA. 101+71.00, 97.00' LT.
4	CORNER OF LOT	N 278615.30 E 1657018.47	BASELINE I STA. 103+69.00, 97.00' LT.
5	PC OF 10' RADIUS	N 278543.80 E 1657019.08	BASELINE I STA. 103+69.00, 25.50' LT.
6	CENTER OF 10' RADIUS	N 278543.89 E 1657029.08	BASELINE I STA. 103+79.00, 25.50' LT.
7	PCC OF 10' & 30' RADII	N 278533.89 E 1657028.94	BASELINE I STA. 103+78.78, 15.50' LT.
8	CENTER OF 30' RADIUS	N 278563.89 E 1657029.36	BASELINE I STA. 103+79.45, 45.50' LT.
9	PT OF 30' RADIUS	N 278564.30 E 1657059.36	BASELINE I STA. 104+09.45, 45.65' LT.
10	PC OF 30' RADIUS	N 278470.64 E 1657061.28	BASELINE I STA. 104+10.57, 48.00' RT.
11	CENTER OF 30' RADIUS	N 278472.90 E 1657031.37	BASELINE I STA. 103+80.67, 45.50' RT.
12	PCC OF 30' & 10' RADII	N 278502.77 E 1657028.60	BASELINE I STA. 103+78.16, 15.61' RT.
13	CENTER OF 10' RADIUS	N 278492.82 E 1657029.52	BASELINE I STA. 103+79.00, 25.57' RT.
14	PT OF 10' RADIUS	N 278492.73 E 1657019.52	BASELINE I STA. 103+69.00, 25.57' RT.
15	CORNER OF LOT	N 278421.30 E 1657020.13	BASELINE I STA. 103+69.00, 97.00' RT.
16	PC OF 33' RADIUS	N 278419.70 E 1656834.14	BASELINE I STA. 101+83.00, 97.00' RT.
17	CENTER OF 33' RADIUS	N 278452.70 E 1656833.86	BASELINE I STA. 101+83.00, 64.00' RT.
18	PT OF 33' RADIUS	N 278452.42 E 1656800.86	BASELINE I STA. 101+50.00, 64.00' RT.

TRAVERSE TIES



CONTROL POINT #1

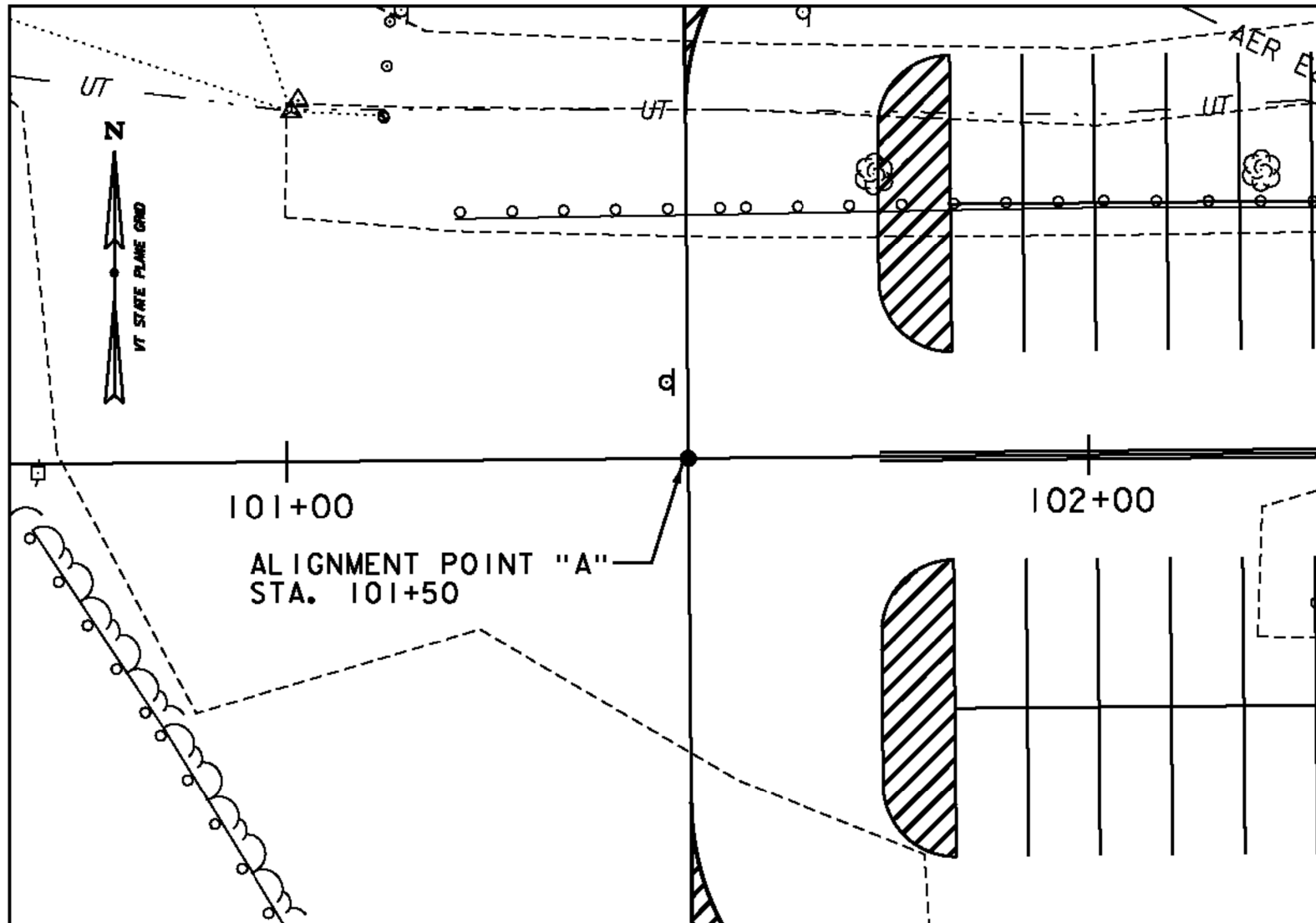


CONTROL POINT #2

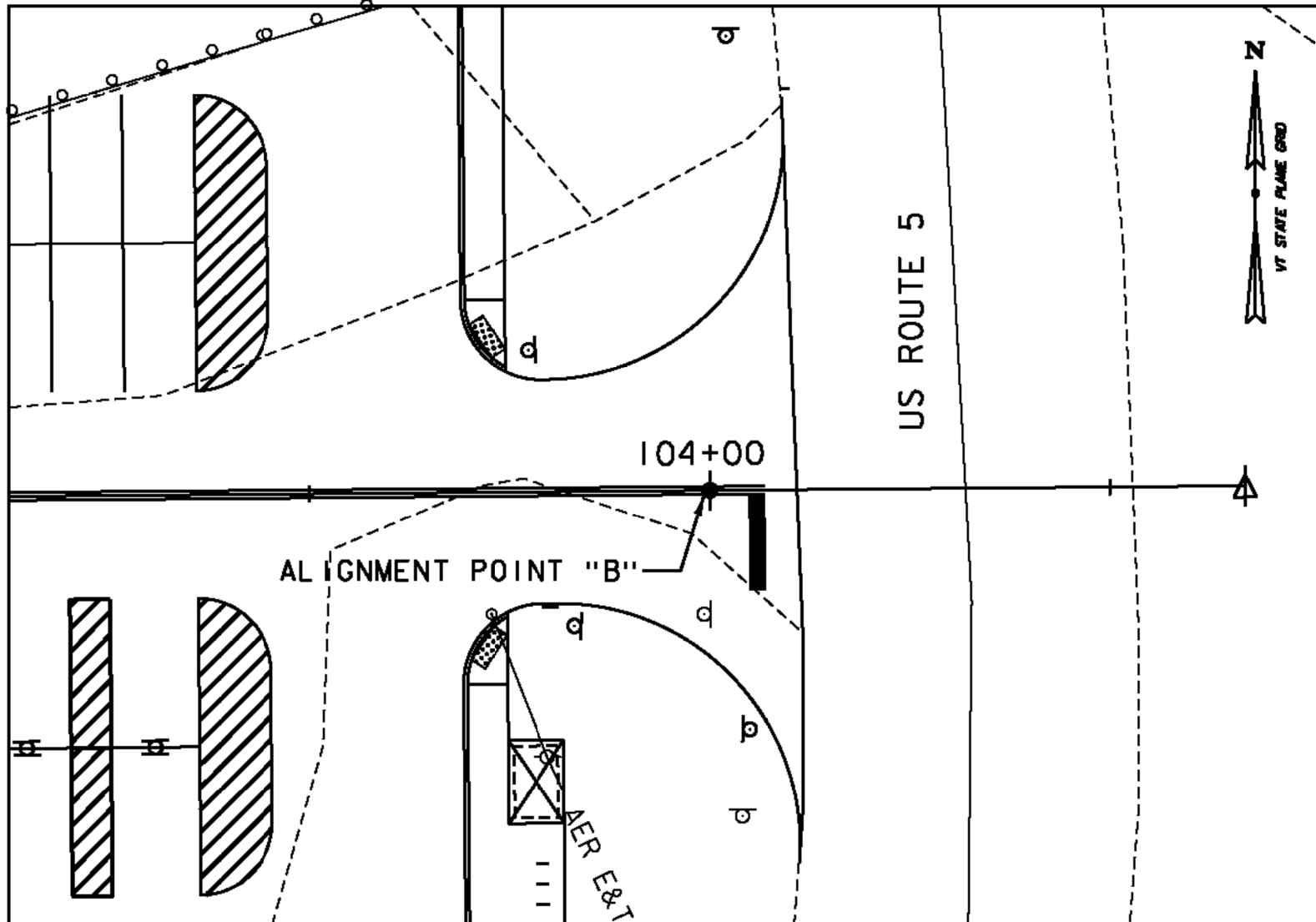
CONTROL POINTS

POINT	NORTHING	EASTING	ELEVATION
1	278559.697'	1656750.806'	308.85'
2	278399.643'	165831.06' 1656831.061'	312.85'

ALIGNMENT TIES



ALIGNMENT POINT A



ALIGNMENT POINT B

ALIGNMENT POINTS

POINT	NORTHING	EASTING	STATION	ELEVATION
A	278516.416'	1656800.309'	101+50.00	311.97'
B	278518.567'	1657050.299'	104+00.00	313.72'

DATUM

VERTICAL NAVD 88
HORIZONTAL NAD 83 (1996)
ADJUSTMENT none

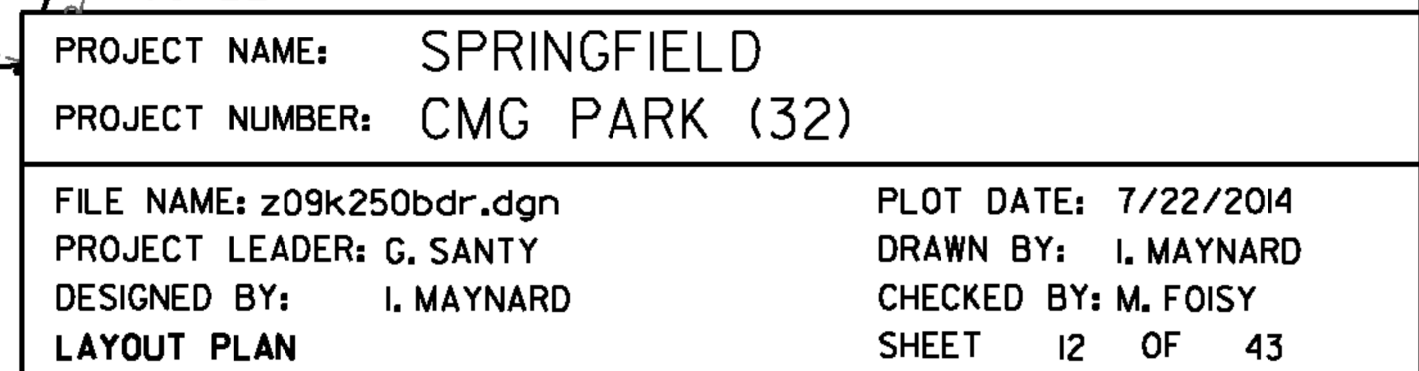
PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

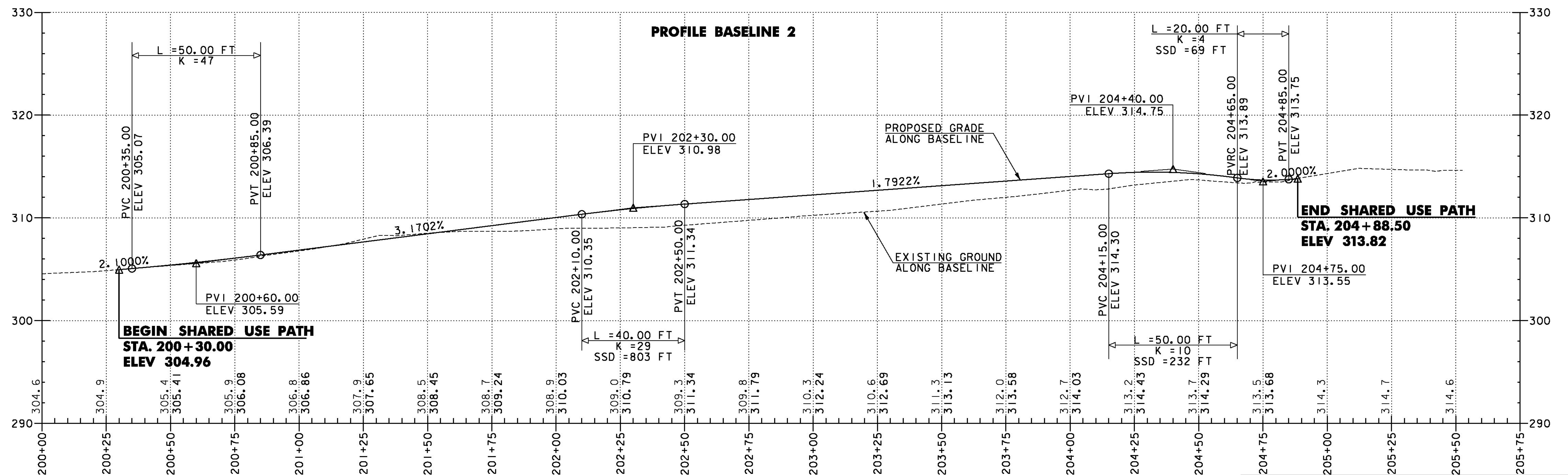
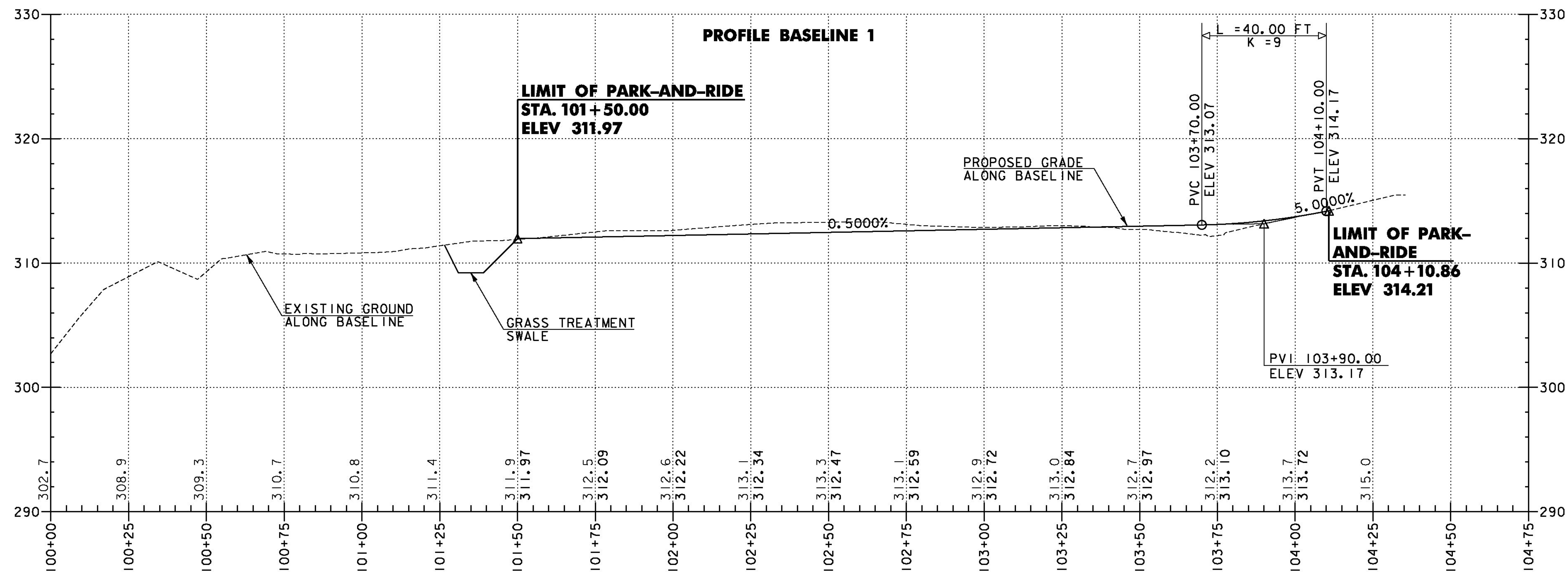
FILE NAME: z09k250+1e.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
SURVEY CONTROL AND TIES

PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 11 OF 43



CHAIN-LINK FENCE, 4 FT
STA. 100+73.2, 7.0' RT - 102+89.1, 128.0' RT
REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 100+68.2, 8.4' RT - 101+83.9, 127.2' RT
STA. 101+21.1, 30.2' LT - 103+81.4, 67.8' LT





NOTE:
 ELEVATIONS SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG BASELINE.
 ELEVATIONS SHOWN TO THE NEAREST HUNDREDTH ARE FINISHED GRADE ALONG BASELINE.

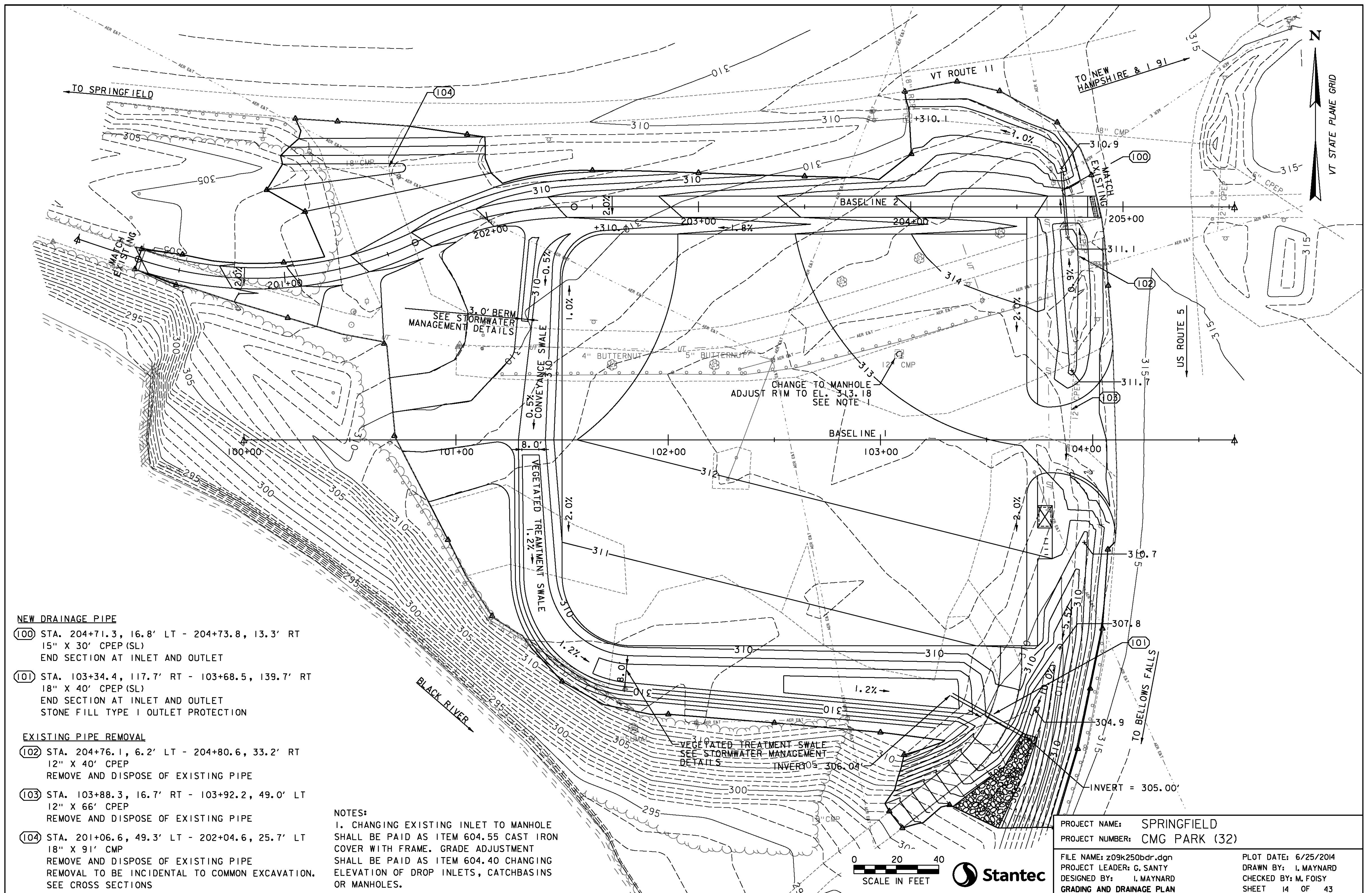
HORIZONTAL: 0 20 40
 VERTICAL: 0 5 10

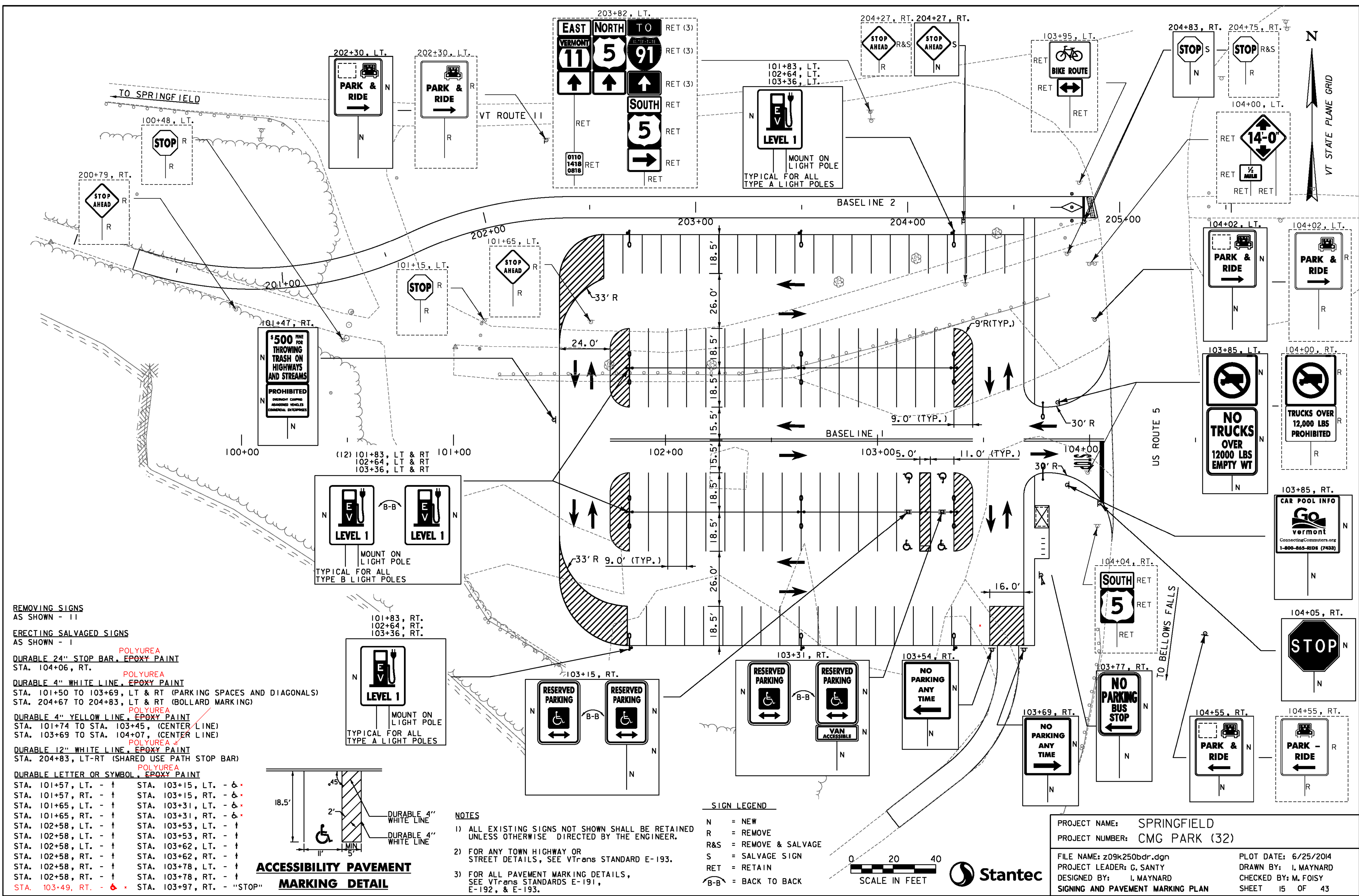


PROJECT NAME: SPRINGFIELD
 PROJECT NUMBER: CMG PARK (32)

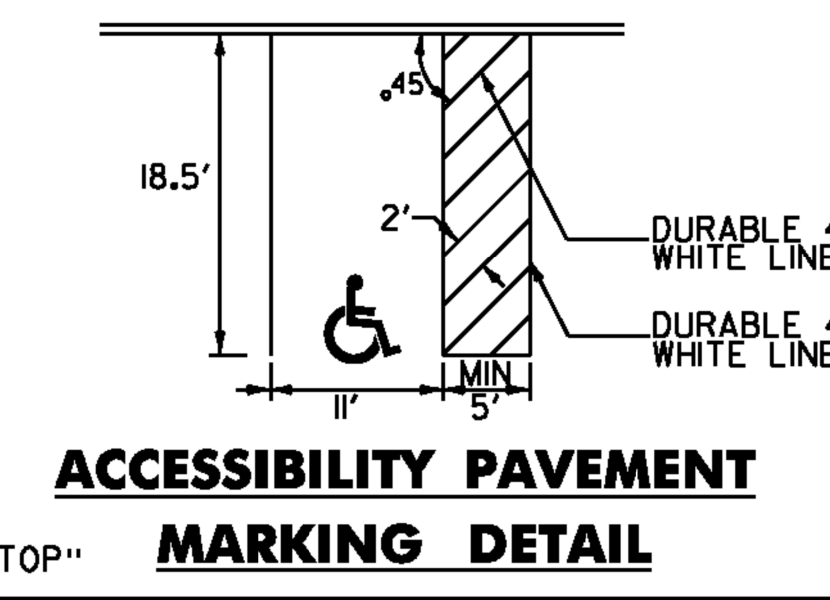
FILE NAME: z09k250xs.dgn
 PROJECT LEADER: G. SANTY
 DESIGNED BY: I. MAYNARD
 PROFILE SHEET

PLOT DATE: 6/25/2014
 DRAWN BY: I. MAYNARD
 CHECKED BY: M. FOISY
 SHEET 13 OF 43



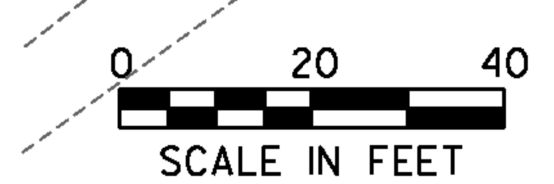


- REMOVING SIGNS
AS SHOWN - 11
- ERECTING SALVAGED SIGNS
AS SHOWN - 1
- DURABLE 24" STOP BAR, EPOXY PAINT**
STA. 104+06, RT.
- DURABLE 4" WHITE LINE, EPOXY PAINT**
STA. 101+50 TO 103+69, LT & RT (PARKING SPACES AND DIAGONALS)
STA. 204+67 TO 204+83, LT & RT (BOLLARD MARKING)
- DURABLE 4" YELLOW LINE, EPOXY PAINT**
STA. 101+74 TO STA. 103+45, (CENTER LINE)
STA. 103+69 TO STA. 104+07, (CENTER LINE)
- DURABLE 12" WHITE LINE, EPOXY PAINT**
STA. 204+83, LT-RT (SHARED USE PATH STOP BAR)
- DURABLE LETTER OR SYMBOL, EPOXY PAINT**
- | | |
|----------------------|---------------------------|
| STA. 101+57, LT. - † | STA. 103+15, LT. - † |
| STA. 101+57, RT. - † | STA. 103+15, RT. - † |
| STA. 101+65, LT. - † | STA. 103+31, LT. - † |
| STA. 101+65, RT. - † | STA. 103+31, RT. - † |
| STA. 102+58, LT. - † | STA. 103+53, LT. - † |
| STA. 102+58, LT. - † | STA. 103+53, RT. - † |
| STA. 102+58, LT. - † | STA. 103+62, LT. - † |
| STA. 102+58, RT. - † | STA. 103+62, RT. - † |
| STA. 102+58, RT. - † | STA. 103+78, LT. - † |
| STA. 102+58, RT. - † | STA. 103+78, RT. - † |
| STA. 103+49, RT. - † | STA. 103+97, RT. - "STOP" |



- NOTES**
- 1) ALL EXISTING SIGNS NOT SHOWN SHALL BE RETAINED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 - 2) FOR ANY TOWN HIGHWAY OR STREET DETAILS, SEE VTrans STANDARD E-193.
 - 3) FOR ALL PAVEMENT MARKING DETAILS, SEE VTrans STANDARDS E-191, E-192, & E-193.

- SIGN LEGEND**
- N = NEW
R = REMOVE
R&S = REMOVE & SALVAGE
S = SALVAGE SIGN
RET = RETAIN
B-B = BACK TO BACK

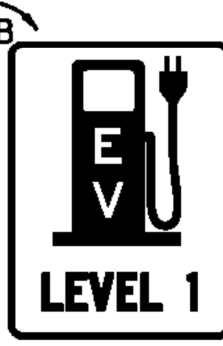
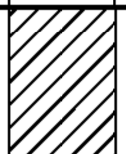
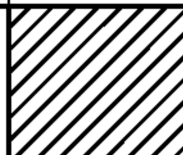


PROJECT NAME: SPRINGFIELD	
PROJECT NUMBER: CMG PARK (32)	
FILE NAME: z09k250bdr.dgn	PLOT DATE: 6/25/2014
PROJECT LEADER: G. SANTY	DRAWN BY: I. MAYNARD
DESIGNED BY: I. MAYNARD	CHECKED BY: M. FOISY
SIGNING AND PAVEMENT MARKING PLAN	
SHEET 15 OF 43	

*LETTER OR SYMBOL, WATERBORNE PAINT

*ADDED 1 HANDICAP STALL, REF. COD *01 FOR REVISED SHEET

TRAFFIC SIGN SUMMARY SHEET 01

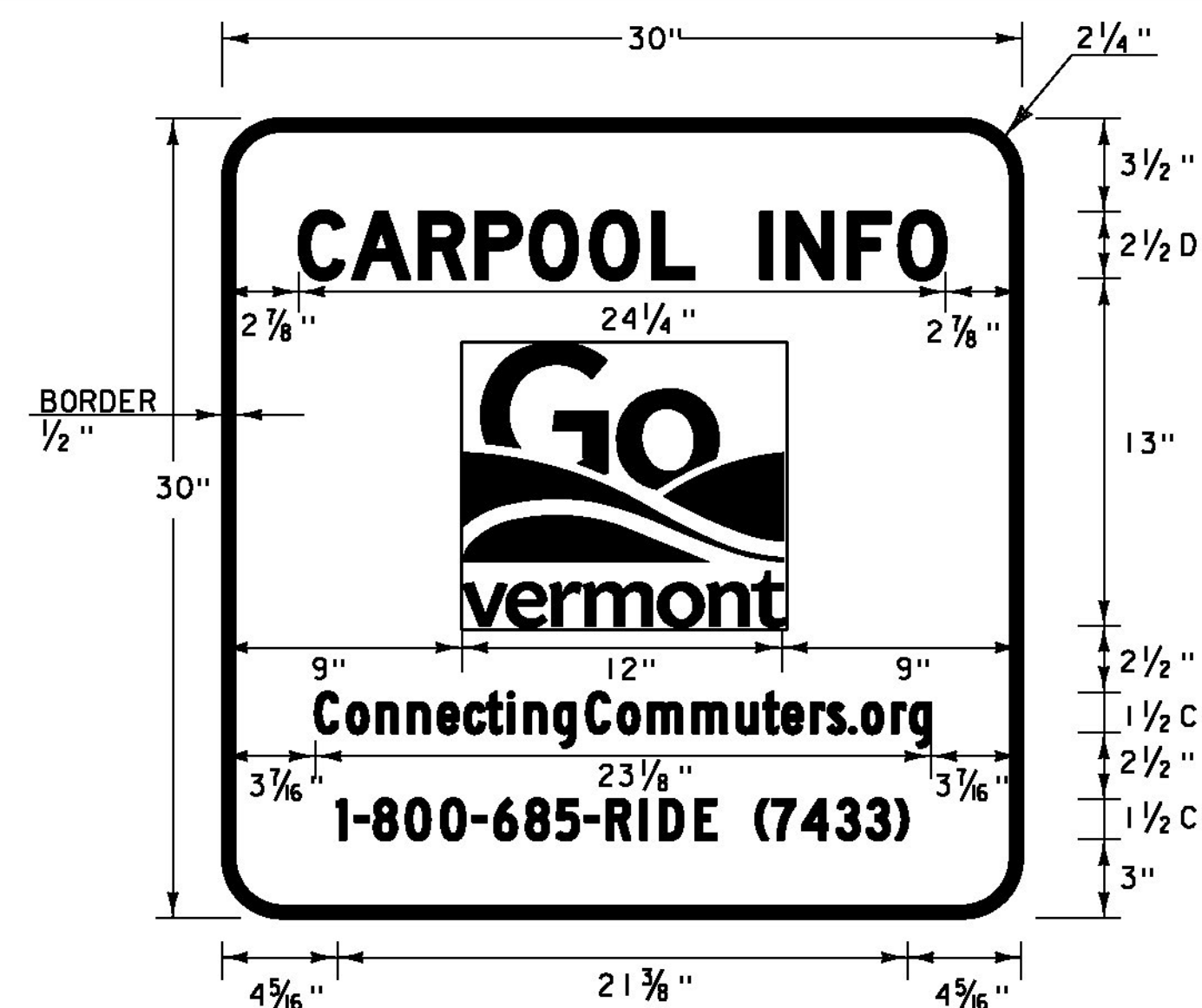
MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST RETAIN SALVAGE	NO. OF POSTS	NEW SIGN POSTS															REMARKS	SIGN DETAIL									
											FLANGED CHANNEL			SQUARE STEEL (in)			TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL												
		E A	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS			1.75	2.0	2.5	ANCHOR	SLEEVE	3.0	4.0	4.0 MOD	FOUND- ATION	3.0	3.5	4.0	5.0	FTG. SIZE			WEIGHT	POST SIZE	REQUIRED SIGNALING							
																								lb/ft	lb/ft					lb/ft				24"	30"	
												1.1/2	2.0	3.0	1.88	2.42	3.35				1.3	1.7	1.7					7.6	9.0	10.8	14.6					
SPRINGFIELD																																				
101+47, RT LT		I	24	30	5.00																							SIGN ID CODE VR-023b					E-144			
		I	30	24	5.00									15		X												SIGN ID CODE VR-032 "PROHIBITED" SIGN TO BE INSTALLED BELOW SIGN VR-023b.				19				
101+83, LT		I	24	32	5.33																							INSTALL SIGN ON LIGHT POLE				4				
101+83, LT&RT	 	4	24	32	21.33																							INSTALL SIGNS ON LIGHT POLE				4				
101+83, RT		I	24	32	5.33																							INSTALL SIGN ON LIGHT POLE				4				
102+64, LT		I	24	32	5.33																							INSTALL SIGN ON LIGHT POLE				4				
102+64, LT&RT	 	4	24	32	21.33																							INSTALL SIGNS ON LIGHT POLE				4				
102+64, RT		I	24	32	5.33																							INSTALL SIGN ON LIGHT POLE				4				
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."											FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB				PROJECT NAME: SPRINGFIELD						
																															PROJECT NUMBER: CMG PARK (32)					
					TOTALS	SF	SF	EA.	SF		FT	FT			15			EA.	LB				EA.	EA.	LB			FILE NAME: z09K250frm.dgn			PLOT DATE: 6/25/2014					
																												PROJECT LEADER: G. SANTY			DRAWN BY: I. MAYNARD					
																												DESIGNED BY: I. MAYNARD			CHECKED BY: M. FOISY					
																												TRAFFIC SIGN SUMMARY SHEET 1			SHEET 16 OF 43					

TRAFFIC SIGN SUMMARY SHEET 02



TRAFFIC SIGN SUMMARY SHEET 03

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."



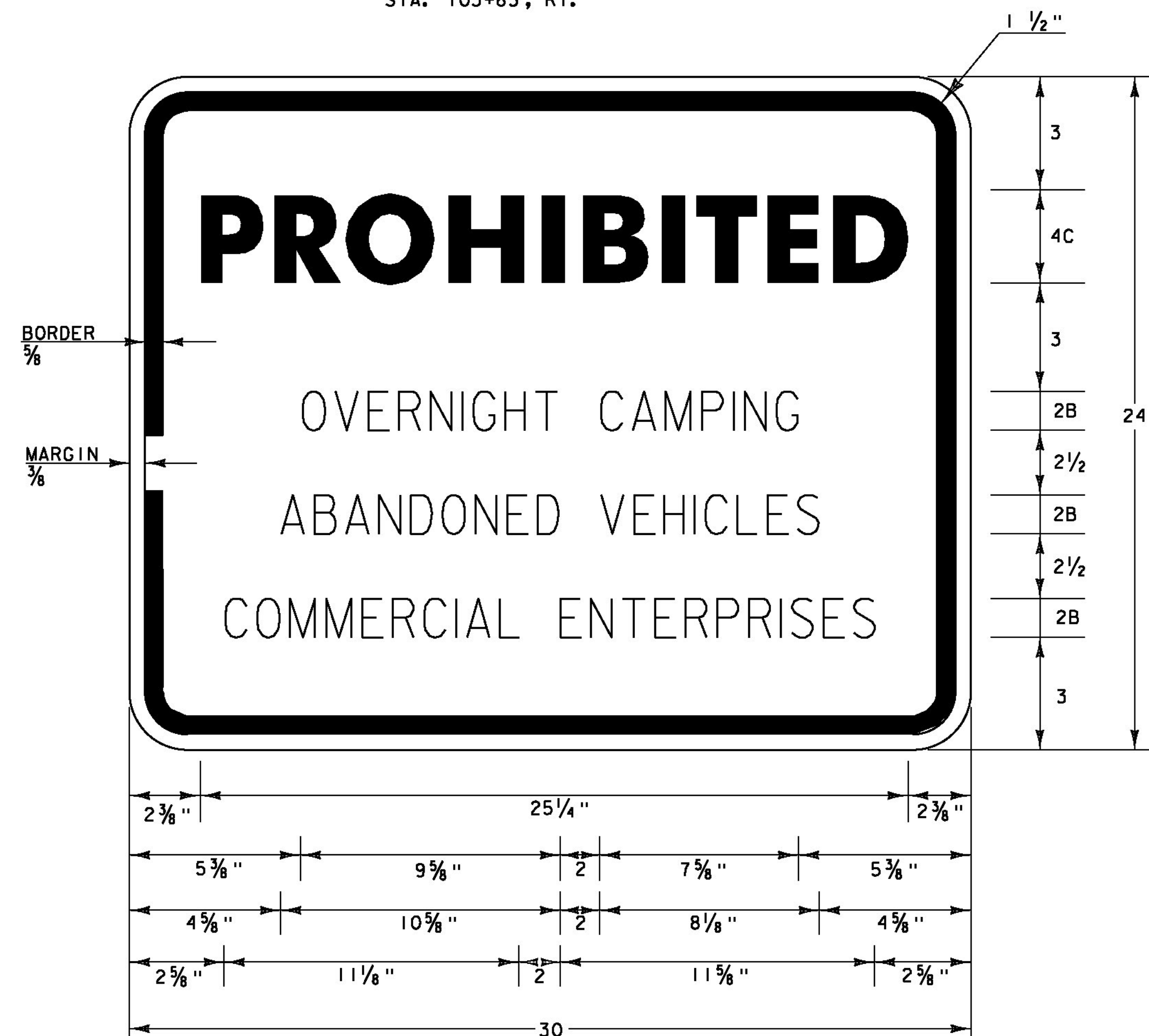
**WHITE BORDER AND TEXT (RETROREFLECTIVE)
(MINIMUM TYPE IX) WITH BLUE BACKGROUND
(RETROREFLECTIVE) (MINIMUM TYPE III)
SEE VTrans STANDARD E-131 FOR MATERIALS**

NOTE: THE "GO VERMONT" LOGO WILL BE PROVIDED TO THE CONTRACTOR BY
VAOT IN JPEG FORMAT.

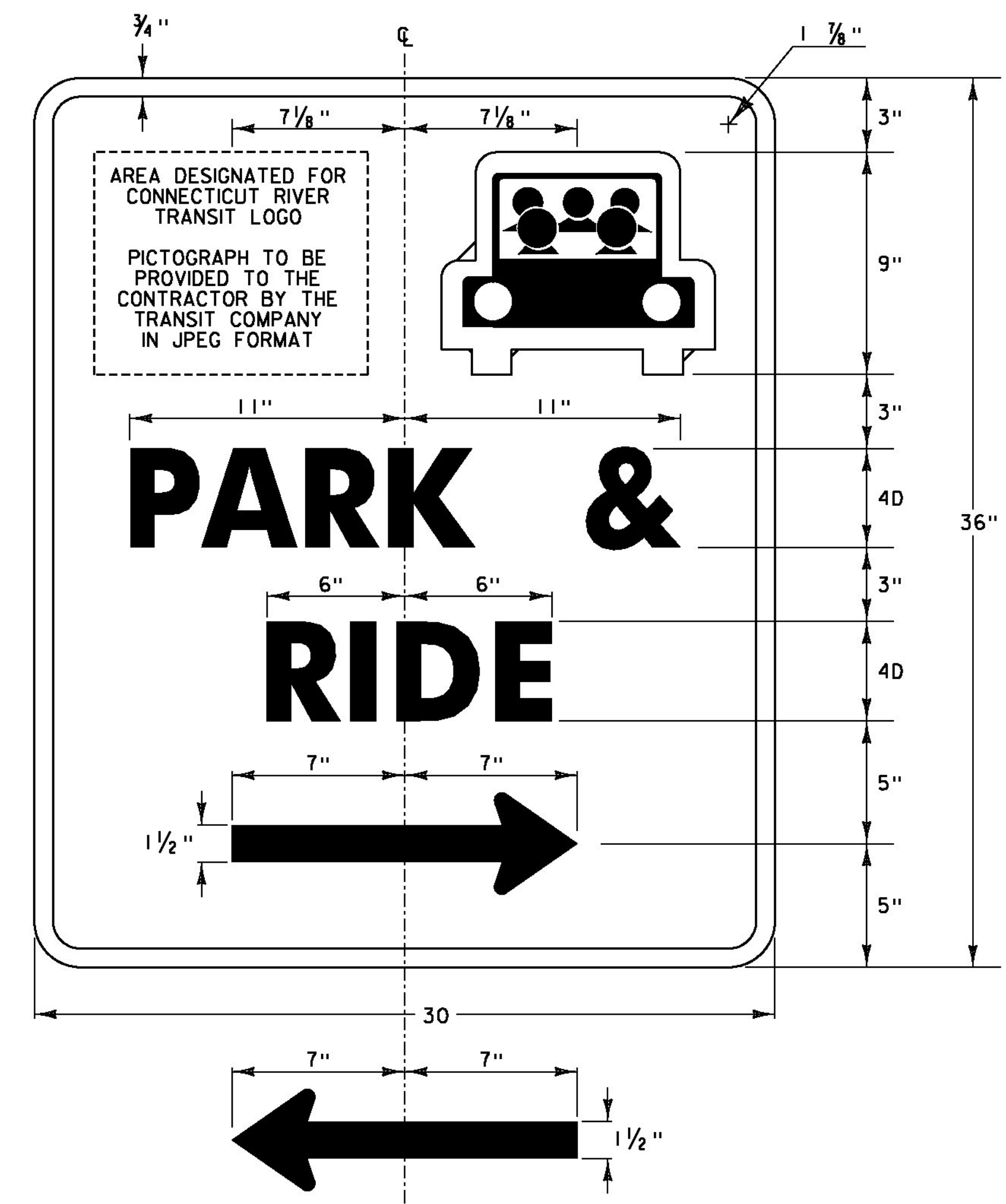
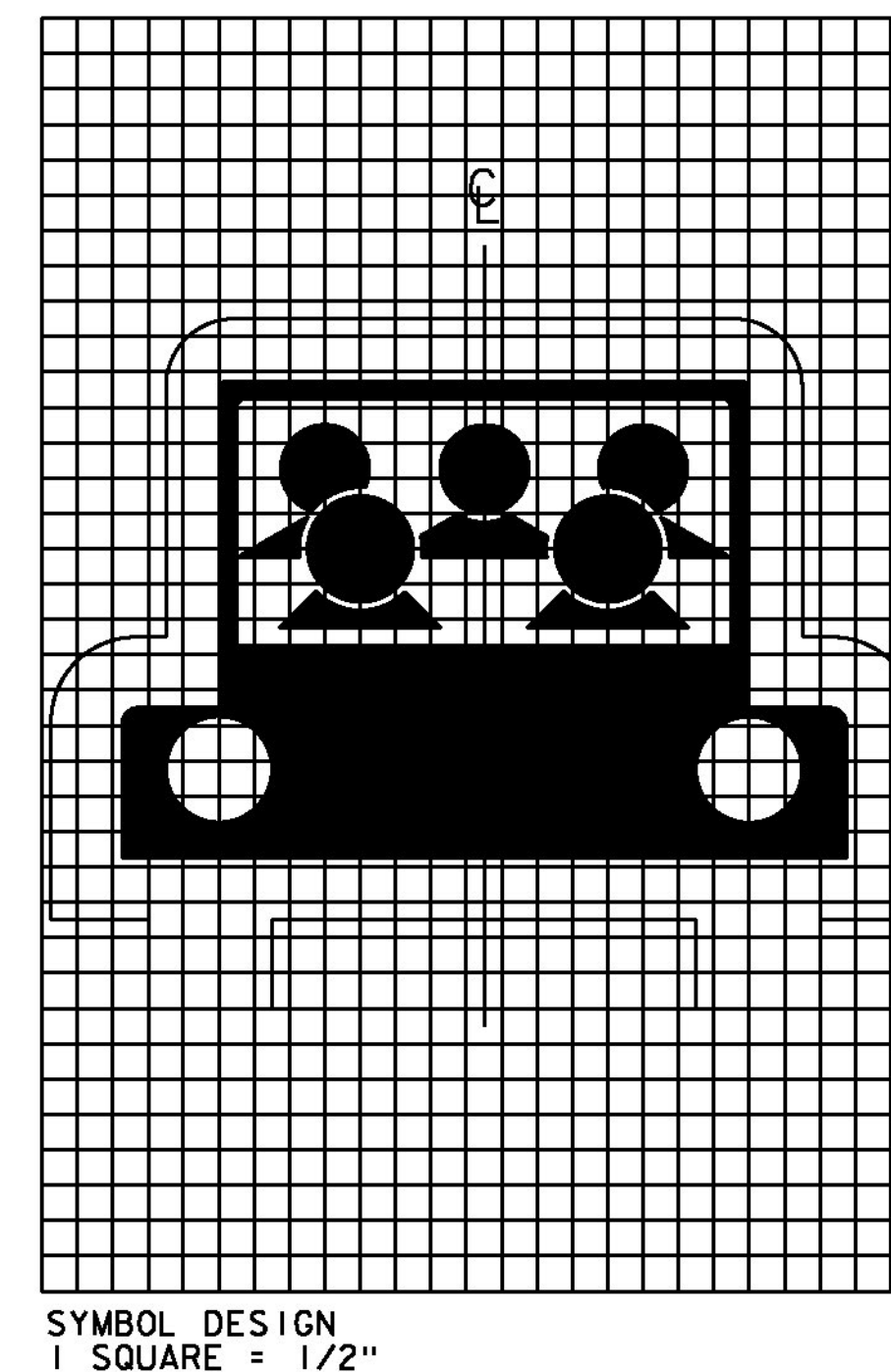
•INCREASE SPACING BY 60%

LOCATIONS

STA. 103+85, RT.



**VR-032A
LOCATIONS**
STA. 101+47, RT



**D4-2
WHITE (REFL.) LEGEND, ARROW & BORDER
WHITE & GREEN SYMBOL
GREEN (REFL.) BACKGROUND
SEE VTrans STANDARD E-131 FOR MATERIALS**

LOCATIONS

STA. 104+02, LT.
STA. 104+55, RT.
STA. 202+30, LT.



PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09k250+yp.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
SIGN DETAILS

PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 19 OF 43

WIRED CONDUIT (2") (PVC) (SCH 80)

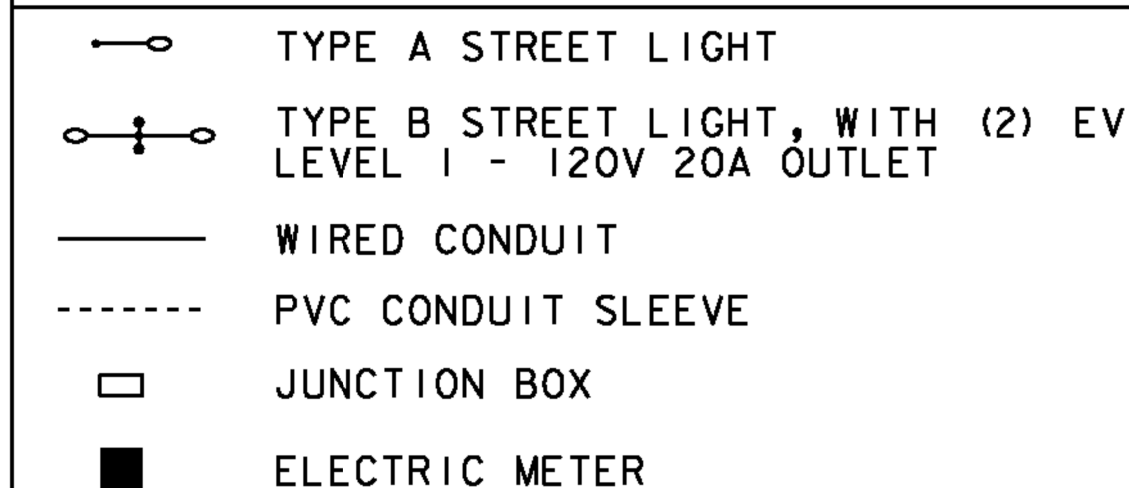
STA.	101+46.0	R.T.	-	101+46.0	R.T.	(2) (METER TO HH-1)
STA.	101+46.0	R.T.	-	101+83.0	R.T.	(HH-1 TO SL-1)
STA.	101+83.0	R.T.	-	102+64.0	R.T.	(SL-1 TO SL-2)
STA.	102+64.0	R.T.	-	103+36.0	R.T.	(SL-2 TO SL-3)
STA.	101+46.0	R.T.	-	101+46.0	L.T.	(HH-1 TO HH-2)
STA.	101+46.0	L.T.	-	101+83.0	L.T.	(HH-2 TO SL-4)
STA.	101+83.0	L.T.	-	102+64.0	L.T.	(SL-4 TO SL-5)
STA.	102+64.0	L.T.	-	103+36.0	L.T.	(SL-5 TO SL-6)
STA.	103+36.0	L.T.	-	103+78.0	L.T.	(SL-6 TO SL-7)
STA.	103+78.0	L.T.	-	103+78.0	R.T.	(SL-7 TO SL-8)
STA.	101+46.0	L.T.	-	101+79.0	L.T.	(HH-2 TO HH-3)
STA.	101+79.0	L.T.	-	101+83.0	L.T.	(HH-3 TO SL-9)
STA.	101+79.0	L.T.	-	102+64.0	L.T.	(HH-3 TO SL-10)
STA.	102+64.0	R.T.	-	103+36.0	L.T.	(SL-10 TO SL-11)
STA.	101+46.0	R.T.	-	101+79.0	R.T.	(METER TO HH-4)
STA.	101+79.0	R.T.	-	101+83.0	R.T.	(HH-4 TO SL-12)
STA.	101+79.0	R.T.	-	102+64.0	R.T.	(HH-4 TO SL-13)
STA.	102+64.0	R.T.	-	103+36.0	R.T.	(SL-13 TO SL-14)

STA. 103+36.0 R.T. - 103+78.0 R.T. (SL-3 TO SL-8) = AER E&T

POLE NO.	LOCATION	OFFSET
SL-1 SL-7	101+83.0	34.0' R
SL-2 SL-8	102+64.0	34.0' R
SL-3 SL-12	103+36.0	34.0' R
SL-4	101+83.0	34.0' L
SL-5	102+64.0	34.0' L
SL-6	103+36.0	34.0' L
SL-7 SL-2	103+78.0	18.0' L
SL-8 SL-1	103+78.0	18.0' R
SL-9	101+83.0	99.0' L
SL-10 SL-8	102+64.0	99.0' L
SL-11 SL-14	103+36.0	99.0' L
SL-12 SL-3	101+83.0	99.0' R
SL-13	102+64.0	99.0' R
SL-14 SL-11	103+36.0	99.0' R

LABEL	LOCATION	OFFSET
TRIG HH-1	101+46.0	32.5' RT.
TRIG HH-2	101+46.0	30.5' LT.
TRIG HH-3	101+79.0	99.0' LT.
TRIG HH-4	101+79.0	99.0' RT.

STA. 100+31.0, LT
STA. 100+58.0, LT
STA. 100+68.9, RT



QUANT	COMMON NAME	SCIENTIFIC NAME	SIZE	NOTES
7	RED MAPLE	ACER RUBRUM	2.5 - 3" CAL.	B&B

0 20 40
SCALE IN FEET



FILE NAME: z09k250bdr.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: M. CROWLEY
LIGHTING AND LANDSCAPING PLAN

PLOT DATE: 7/22/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 20 OF 43

GENERAL SITE LIGHT NOTES

CONCRETE BASES

WHEN CONCRETE BASES ARE INSTALLED IN SLOPING GROUND, THE GREATEST EXPOSED HEIGHT TO KEEP ALL OF THE TOP ABOVE GROUND MUST BE DOUBLED AND THEN ADDED TO THE MINIMUM DEPTH FOR THE TOTAL BASE DEPTH.

CARE SHOULD BE TAKEN WHERE CONCRETE BASES, DRAIN-AGE STRUCTURES OR UTILITIES ARE CLOSE TOGETHER.

POLES, ANCHOR BASES AND ARMS

ALL NEW SITE LIGHT POLES AND LUMINAIRE ARMS SHALL BE ALUMINUM IN ACCORDANCE WITH SUBSECTION 753.01 (B) AND SHALL BE DARK BRONZE IN COLOR.

LUMINAIRES AND POLES

FOR LIGHT POLE DETAILS SEE VTRANS STANDARD SHEET E-180A.

LUMINAIRES SHALL HAVE A MOUNTING HEIGHT OF 20.5'. THE ARM LENGTH SHALL BE 7".

TYPE A: ALUMINUM, DARK BRONZE, 'COBRA HEAD' TYPE LED, TYPE III, DISTRIBUTION, WITH SPILL LIGHT CONTROL EQUIVALENT TO: BETA LED CATALOG NO. STR-LWY-3MB-04-C-UL-BZ-525-R-SC WITH PHOTO CELL.

TYPE B: ALUMINUM, DARK BRONZE, 'SHOEBOX' TYPE LED, TYPE III, WITH SPILL LIGHT CONTROL EQUIVALENT TO: VISIONAIRE LIGHTING CATALOG NO.: EL2-I-T3-24LC-530-4K-UNV-BOA-BZ-PCR-RPP-CLS-10KV WITH PHOTO CELL.

POLES: TAPERED ALUMINUM, 18 FT. DARK BRONZE, WITH BASE COVER EQUIVALENT TO: GE LIGHTING SYSTEMS: RRTA-18-SA-6S-6.0-I-F

LUMINAIRE SHALL MEET THE ISO FOOTCANDLE DATA AND THE ILLUMINATION LEVELS AS DESCRIBED BELOW.

ILLUMINATION LEVELS

PARK AND RIDE SHALL HAVE AN AVERAGE OF 1.0FC., MINIMUM OF 0.2FC., WITH MIN/MAX RATIO OF 20:1, AND AN AVE/MIN UNIFORMITY OF BETWEEN 3:1 AND 4:1 OR BETTER.

CONDUIT

A 2 INCH (I.D.) MINIMUM CONDUIT SHALL BE USED AT ALL LOCATIONS UNLESS OTHERWISE NOTED ON THE PLANS. ALL CONDUIT SHALL BE SCHEDULE 80 PVC.

CONDUIT SLEEVE

MINIMUM WALL THICKNESS FOR RIGID PLASTIC PIPE SLEEVES SHALL BE 1/35TH THE DIAMETER. ALL CONDUIT RUNS UNDER ROADWAY SHALL BE INSTALLED IN RIGID PLASTIC OR STEEL PIPE SLEEVES. THE SLEEVE SHALL EXTEND TO WITHIN 2 FEET OF THE SIDE OF A CONCRETE BASE OR JUNCTION BOX. WHERE NO CONCRETE BASE OR JUNCTION BOX IS PRESENT, THE SLEEVE SHALL EXTEND 4 FEET BEYOND THE OUTSIDE EDGE OF SHOULDER OR FACE OF CURB. BACKFILLING AROUND A SLEEVE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

WHEN JACKING A SLEEVE UNDER A ROADWAY IT SHALL BE STEEL WITH A MINIMUM DIAMETER OF 8 INCHES AND MINIMUM WALL THICKNESS OF 3/8 INCH. ACTUAL LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

WIRE

ALL WIRING BETWEEN THE METER AND/OR POWER SOURCE AND THE FIRST POLE AND/OR JUNCTION BOX AND BETWEEN POLES AND/OR PULLBOXES SHALL BE COPPER AND SIZED AS SPECIFIED ON THE PLANS. ALL WIRE SHALL HAVE TYPE XHHW INSULATION OR EQUIVALENT.

GROUNDING

ALL CONDUIT MUST INCLUDE A GROUNDING CONDUCTOR. RIGID STEEL CONDUIT SHALL BE PROPERLY CONNECTED AT THE JOINTS SO AS TO BE WATERTIGHT AND MAINTAIN ELECTRICAL CONTINUITY AND HAVE GROUNDING BUSHINGS SO AS TO ACT AS A GROUND CONDUCTOR.

ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.

PULLBOXES /JUNCTION BOXES

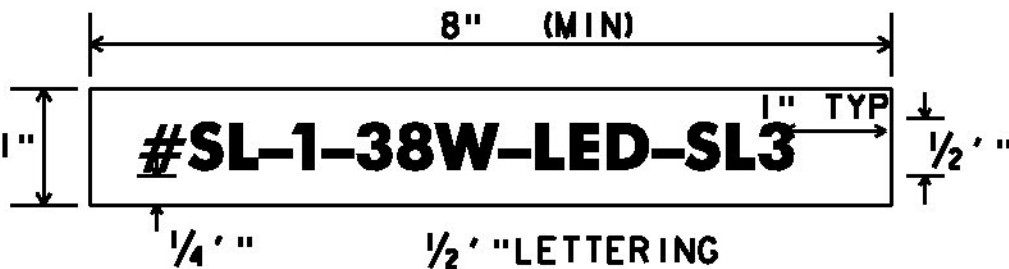
FOR DETAILS SEE VTRANS STANDARD SHEET E-173.

GENERAL

THE LOAD ON EACH BRANCH OF A THREE WIRE CIRCUIT SHALL BE AS BALANCED AS POSSIBLE, LOAD TO NEUTRAL.

THE LAST CONCRETE POLE BASE AT THE END OF EACH CIRCUIT AND SOME JUNCTION BOXES SHALL HAVE A CONDUIT SWEEP WITH CAP INSTALLED FOR FUTURE USE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY ELECTRICAL PERMITS.



LEGEND: BLACK OR WHITE (NON-REFL.) - STAMPED PRIOR TO PRINTING/PAINTING. BACKGROUND: NATURAL ALUMINUM OR FLAT BLACK SURFACE, SAME AS POLE FINISH.

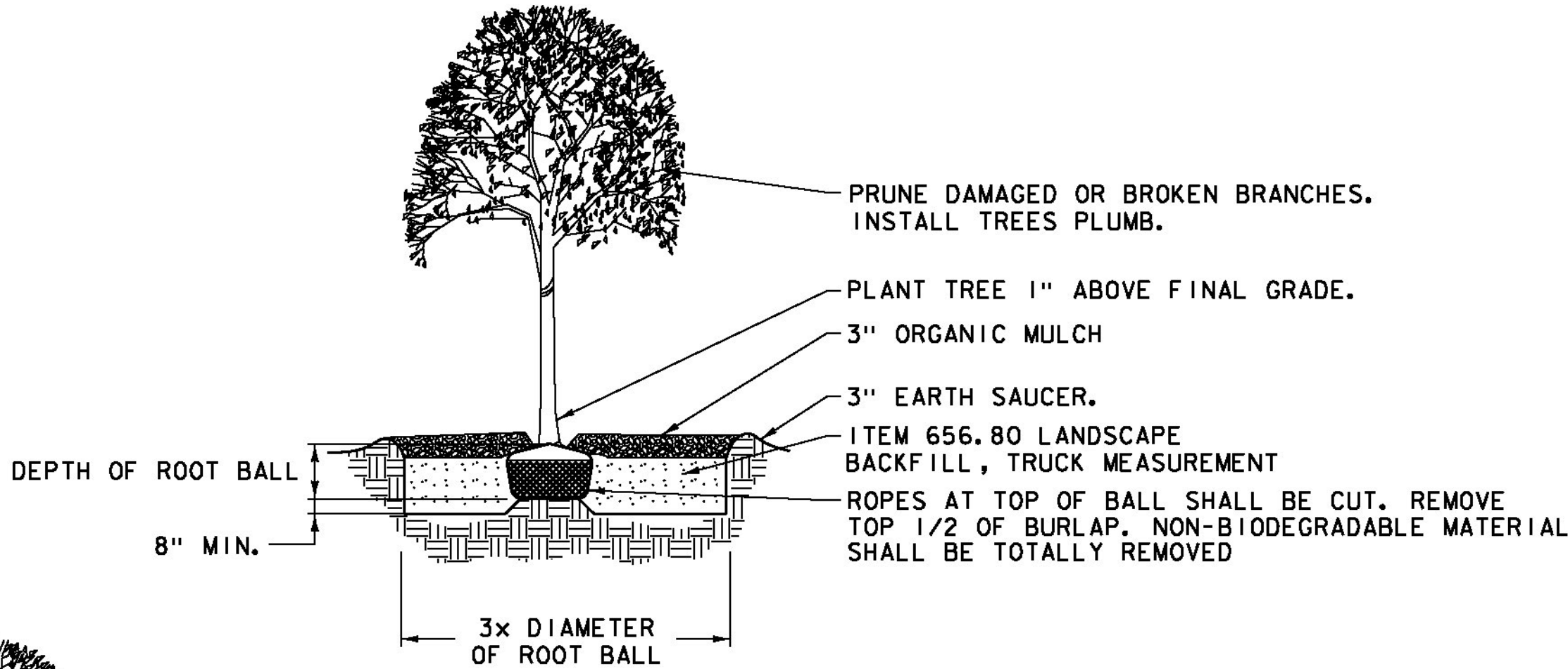
DETAILS FOR TAGS ATTACHED TO SITE LIGHT POLES

NOT TO SCALE

1. THE TAG SHALL BE MOUNTED ON ALL STREET LIGHT POLES IN SUCH A MANNER AS NOT TO BE EASILY REMOVED, SUCH AS WELDED, RIVETED, OR BOLTED WITH VANDAL PROOF BOLTS.
2. THE LETTERS SHALL BE PUNCHED, STAMPED, ENGRAVED, OR PHOTO-ETCHED. PUNCHING, STAMPING OR ENGRAVING SHALL PENETRATE AT LEAST 1/2 THE BASE MATERIAL THICKNESS.
3. THE BASE MATERIAL FOR THE TAG SHALL BE ALUMINUM WITH A MINIMUM THICKNESS OF 0.100 INCH.
4. THE TAG SHALL BE ATTACHED TO THE POLE ABOVE THE HANDHOLE, 6 INCHES MAXIMUM. IF THE POLE HAS A TRANSFORMER BASE ATTACH TAG TO COVER.
5. TYPE 'A' FIXTURE TAG SHALL READ: SL-*-38W-LED-SL3
TYPE 'B' FIXTURE TAG SHALL READ: SL-*-76W-LED-5WQ

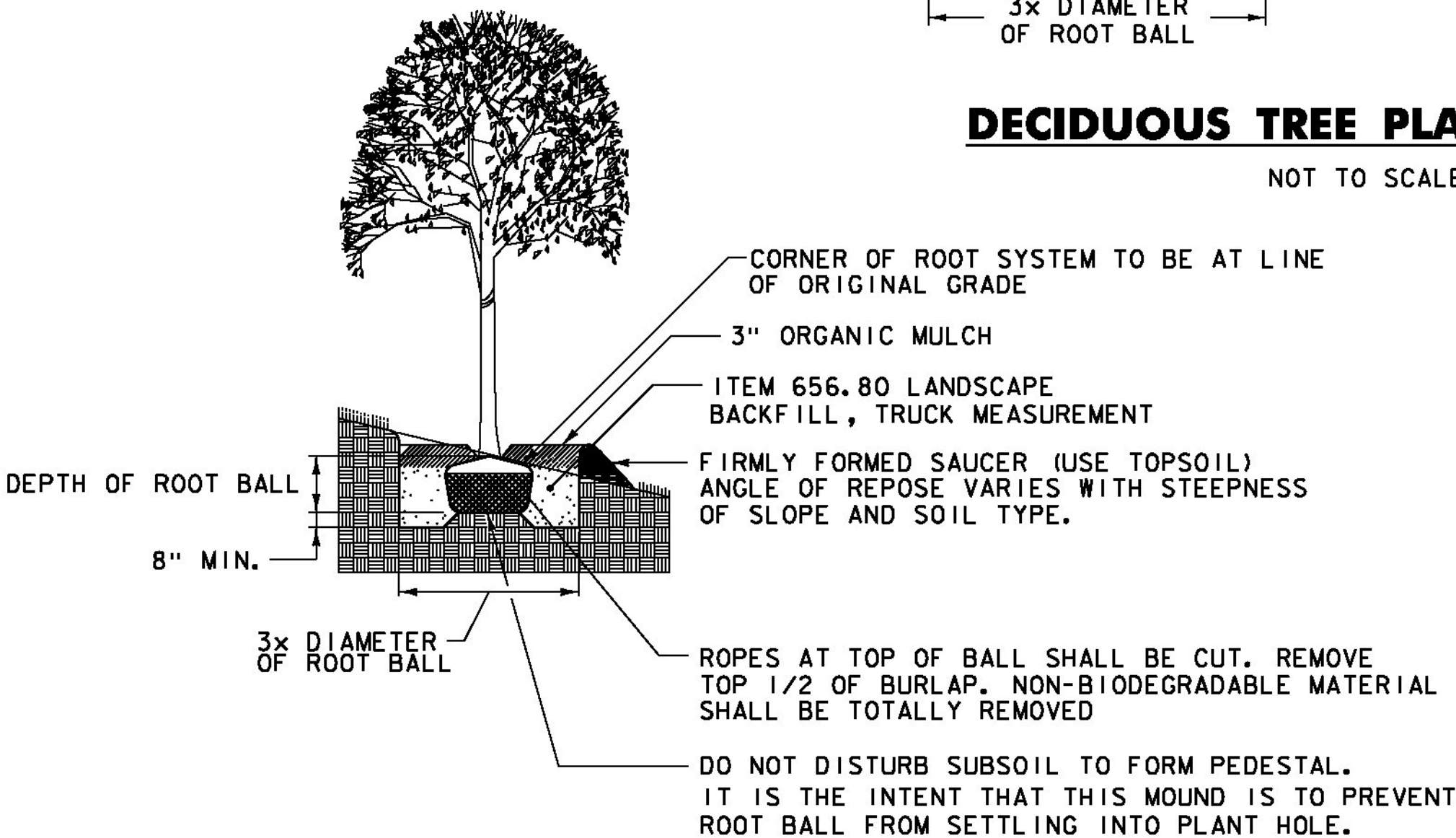
GENERAL LANDSCAPING NOTES

1. APPLICABLE STANDARDS: AMERICAN NATIONAL STANDARDS FOR TREE CARE OPERATIONS, ANSI A300. AMERICAN STANDARD FOR NURSERY STOCK, ANDSO Z60.1. HORTUS THIRD, THE STAFF OF THE L.H. BAILEY HORTORIUM. ALL STANDARDS SHALL INCLUDE THE LATEST ADDITIONS AND AMENDMENTS AS OF THE DATE OF ADVERTISEMENT FOR BIDS.
2. FERTILIZER: SLOW RELEASE TYPE, OR SUBSTITUTE APPROVED BY THE ENGINEER, APPLIED AS FOLLOWS:
TREES AND SHRUBS
MARCH-MAY 10-10-10
MAY-OCTOBER 6-10-10
OCTOBER-MARCH 4-12-12
RATE OF APPLICATION: 1lb./INCH IN CALIPER
3. EXCAVATE SOIL TO 3X WIDER THAN ROOT BALL DIAMETER FOR TREES AND 2X WIDER FOR SHRUBS. SET BALLED AND BURLAPPED (B&B) STOCK ON LAYER OF COMPACTED SOIL MIXTURE, STAND PLUMB AND IN CENTER OF PIT OR TRENCH WITH TOP OF BALL AT THE SAME ELEVATION AS ADJACENT FINISHED LANDSCAPE GRADES. REMOVE WIRE BASKET AND ALL TWINE, REMOVE BURLAP FROM UPPER HALF OF BALLS; RETAIN ON BOTTOMS. SET CONTAINER GROWN SOCK AS SPECIFIED FOR B&B MATERIAL, EXCEPT CUT CANS ON TWO SIDES WITH AN APPROVED CAN CUTTER.
4. DISH TOP OF BACKFILL TO ALLOW FOR MULCHING. MULCH PITS WITH NOT LESS THAN 3" OF ORGANIC MULCH. MULCH SHALL NOT COME IN CONTACT WITH TREE BARK.
5. ALL PLANTS SHALL BE CAREFULLY AND THOROUGHLY WATERED DURING PLANTING AND AS OFTEN AS NECESSARY THEREAFTER TO PROVIDE THE BEST GROWING CONDITIONS UNTIL ACCEPTANCE OF THE WORK.
6. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING. MAINTAIN TREES, SHRUBS, AND OTHER PLANTS BY PRUNING, CULTIVATING, AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE, AT THE EXPENSE OF THE CONTRACTOR.
7. MAINTAIN LAWNS BY WATERING, FERTILIZING, WEEDING, MOWING (2" HEIGHT), TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING, AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS AT THE EXPENSE OF THE CONTRACTOR.
8. SEE TYPICAL SECTIONS SHEET 2 FOR TURF ESTABLISHMENT INFORMATION.



DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



PLANTING ALONG SLOPE

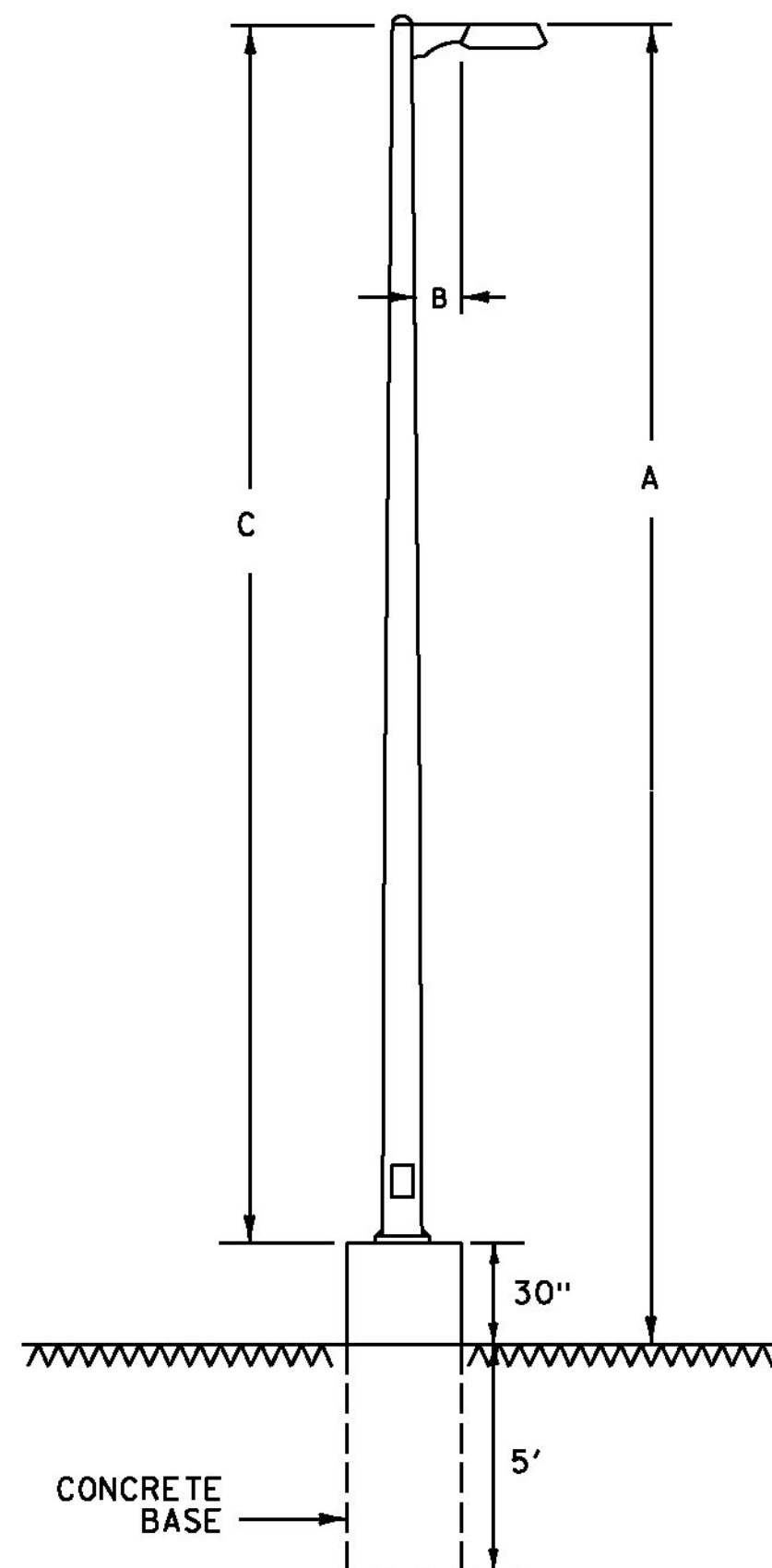
NOT TO SCALE



PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09k250+yp.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
LIGHTING AND LANDSCAPING DETAILS

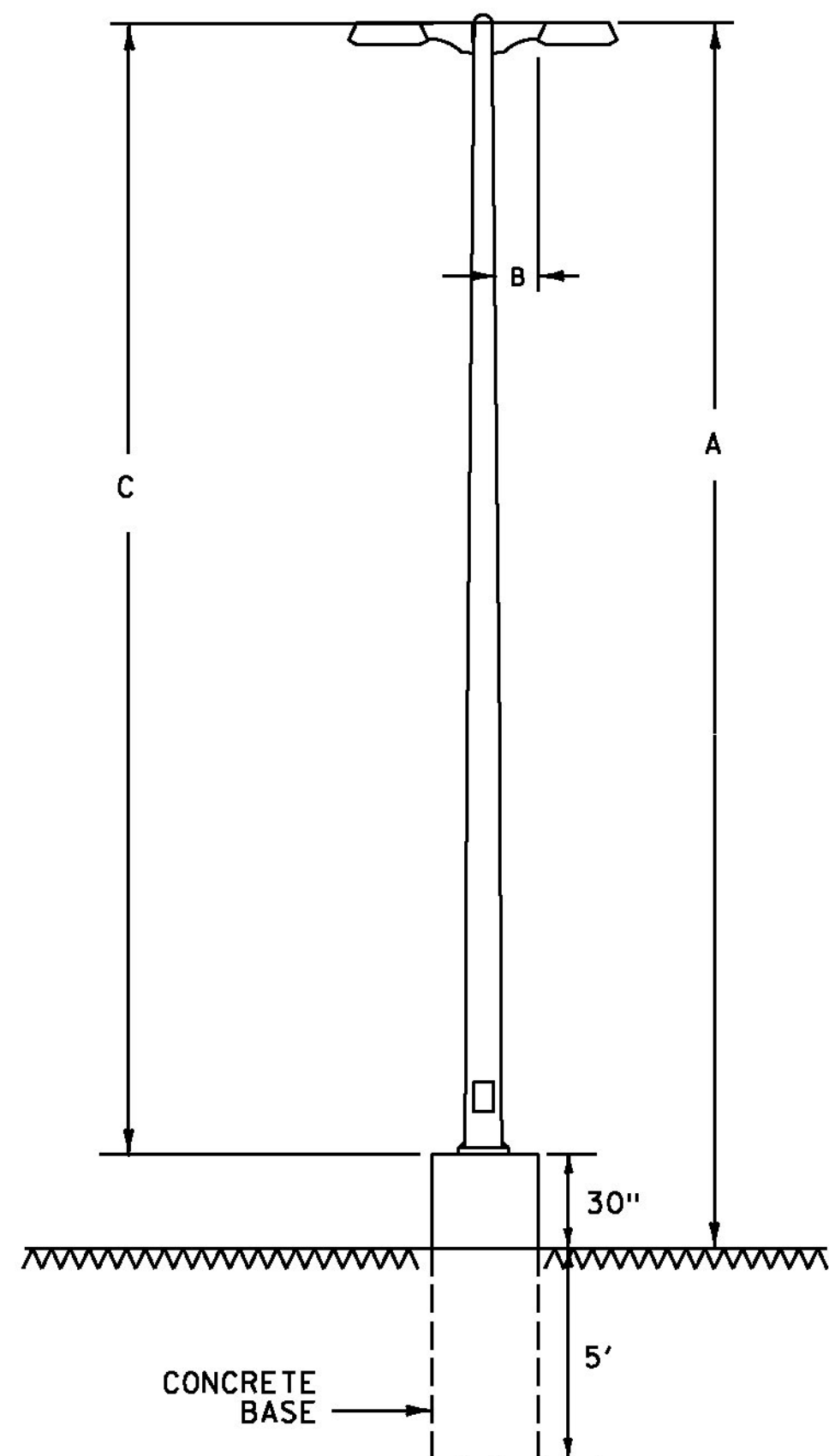
PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 21 OF 43



DIMENSIONS:
A = MOUNTING HEIGHT - 20.5'
B = LUMINAIRE SUPPORT ARM LENGTH - 7"
C = POLE HEIGHT - 18'

TYPE 'A' SITE LIGHT
NOT TO SCALE

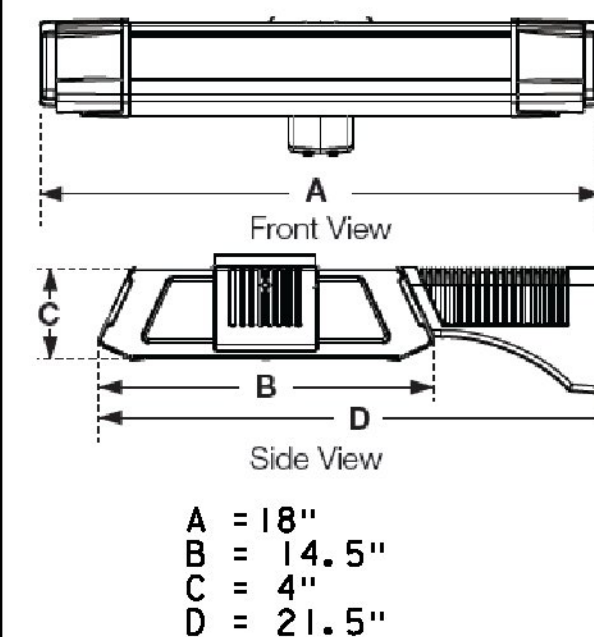
SEE STANDARD E-180A
FOR ADDITIONAL INFORMATION



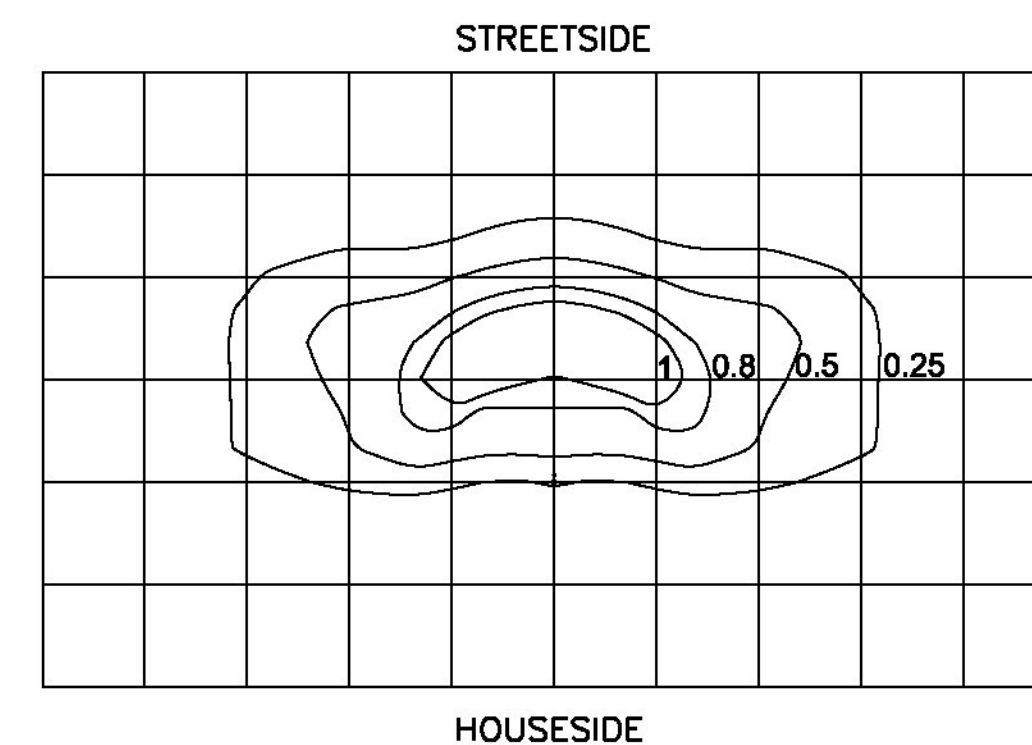
DIMENSIONS:
A = MOUNTING HEIGHT - 20.5'
B = LUMINAIRE SUPPORT ARM LENGTH - 7"
C = POLE HEIGHT - 18'

TYPE 'B' SITE LIGHT
NOT TO SCALE

LUMINAIRE:
LENS FINISH: CLEAR
HOUSING: ALUMINUM
LAMP:
TYPE: System watts:38W
24 LEDs @ 530mA
LUMENS: 1303
ANSI/IES TYPE:
TYPE III CUT-OFF OPTICS
BUG Rating: B0-U0-G0



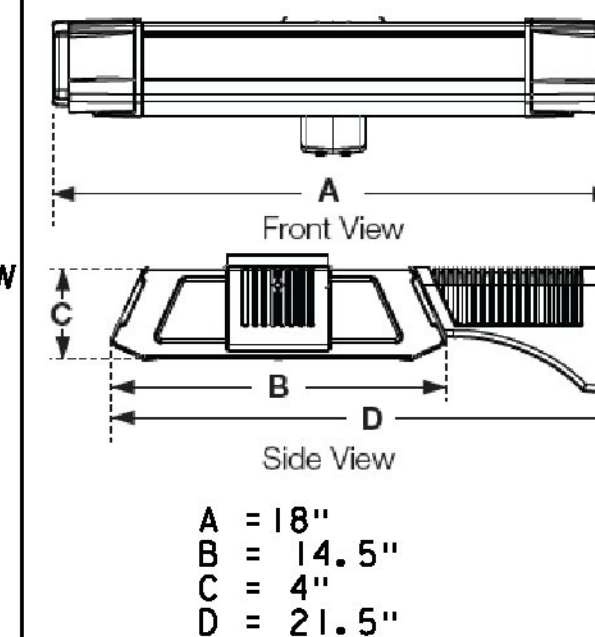
LUMINAIRE: EL2-1-T3-24LC-530MA-CLS
LAMP TYPE: LED
MOUNTING: 18' POLES MOUNTED ON CONCRETE BASES.



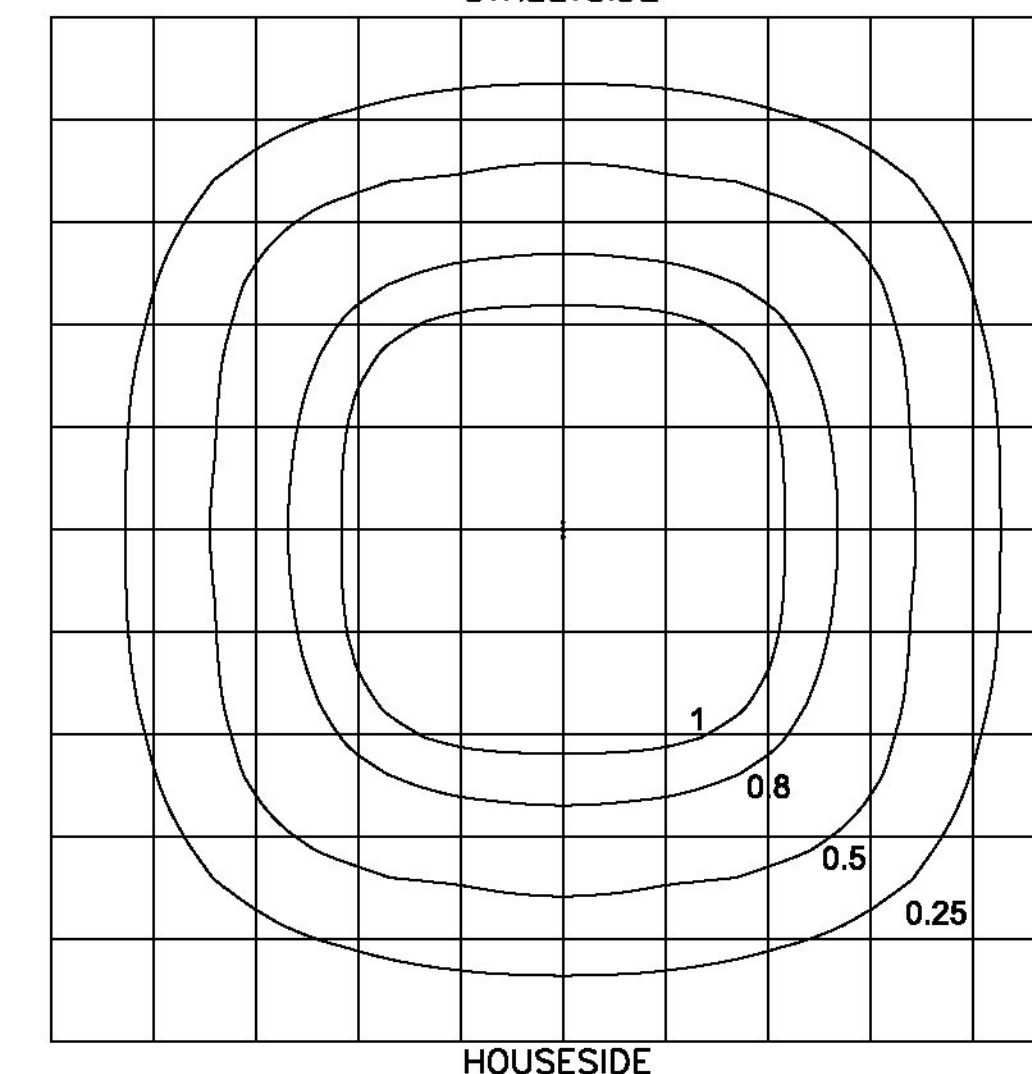
GRID: 10' X 10'

FIXTURE TYPE 'A'
ISO-FOOTCANDLE DATA
NOT TO SCALE

LUMINAIRE:
LENS FINISH: CLEAR
HOUSING: ALUMINUM
LAMP:
TYPE: System watts: (2)38W
24 LEDs @ 530mA, each
LUMENS: 2967, each
ANSI/IES TYPE:
TYPE V CUT-OFF OPTICS
BUG Rating: B2-U0-G0



LUMINAIRE: EL2-1-T5W-24LC-530
LAMP TYPE: LED
MOUNTING: 18' POLES MOUNTED ON CONCRETE BASES.
STREETSIDE



GRID: 10' X 10'

FIXTURE TYPE 'B'
ISO-FOOTCANDLE DATA
NOT TO SCALE

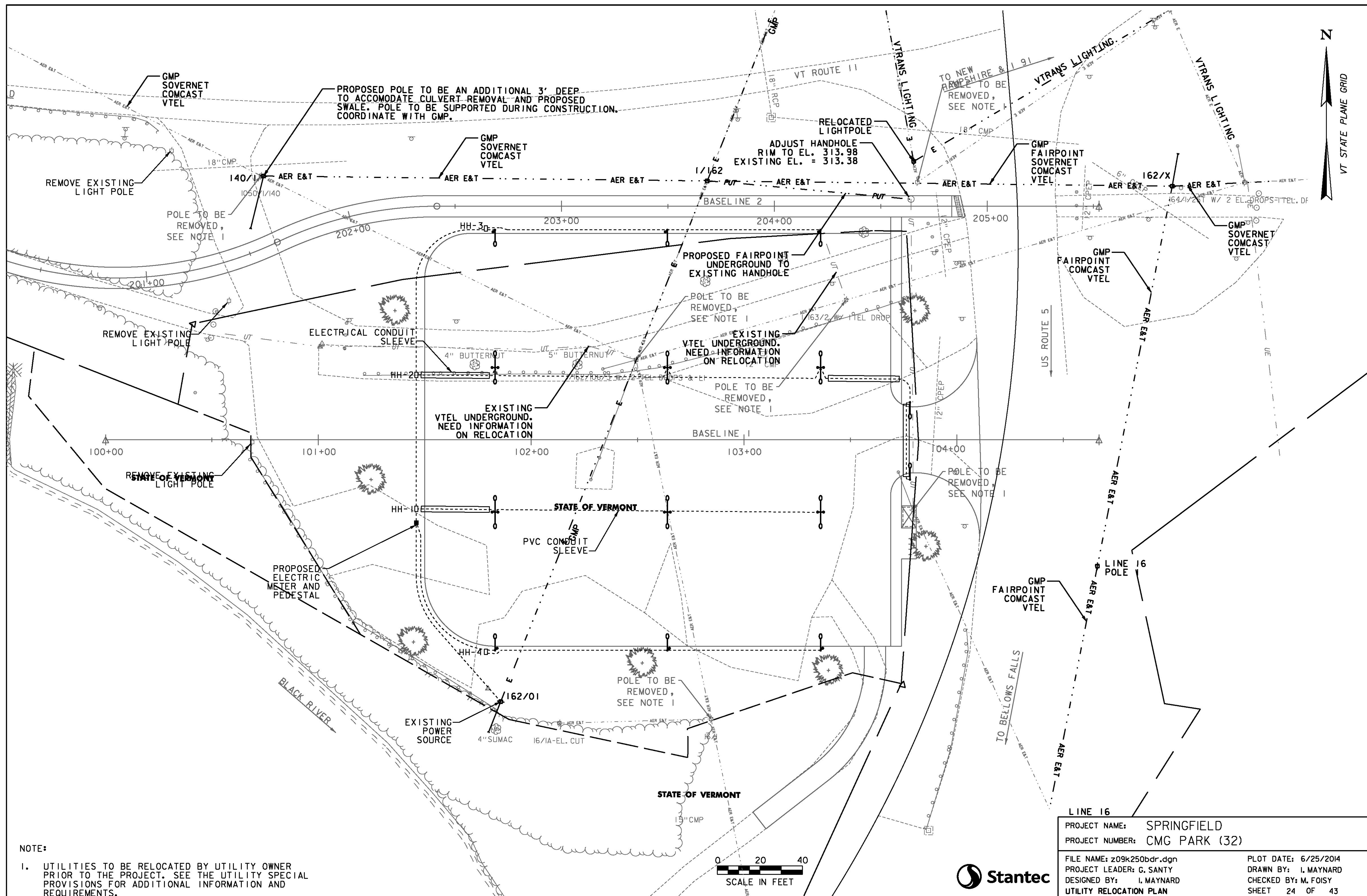


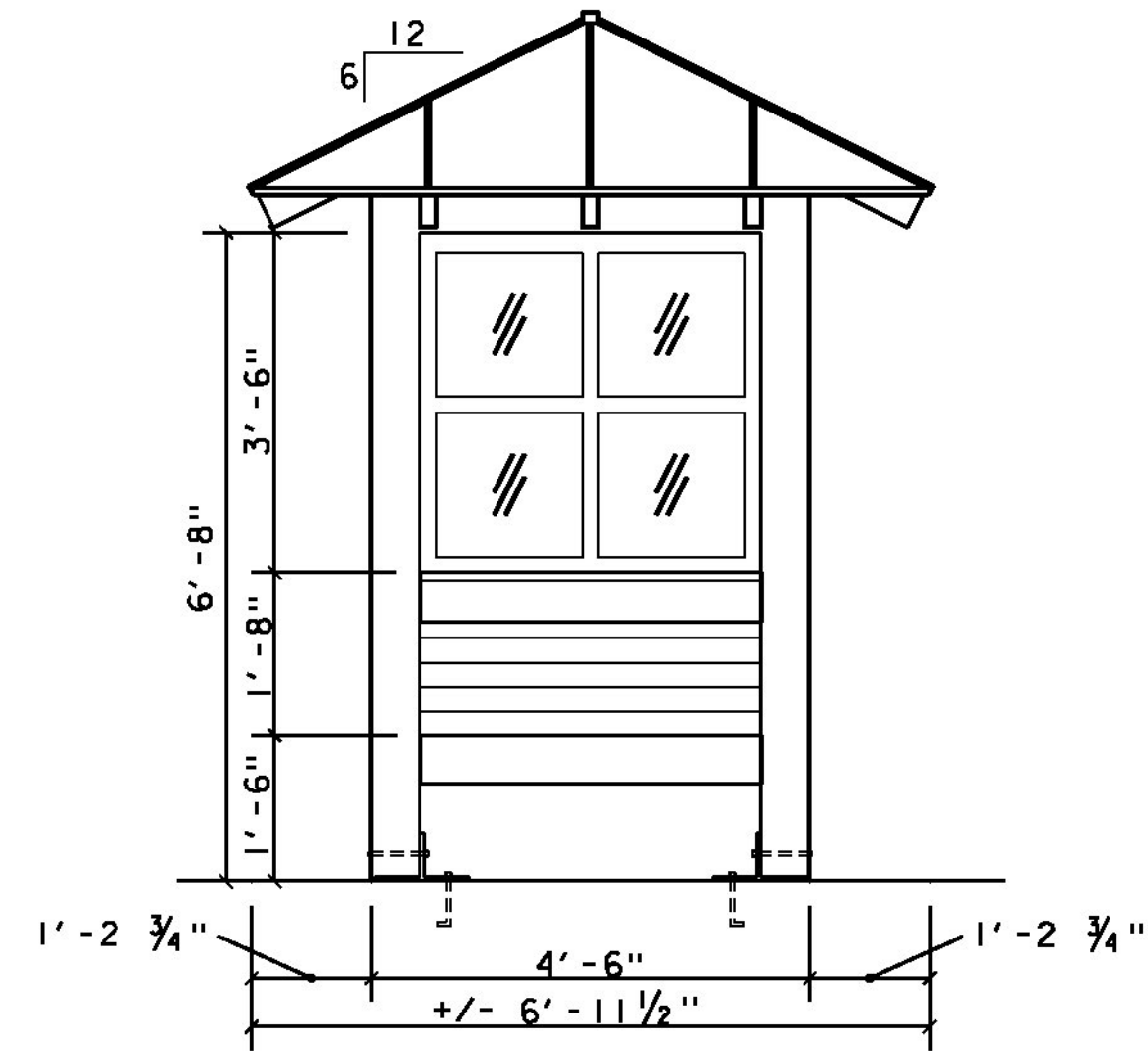
CONDUIT & CONDUCTOR SCHEDULE					
KEY	CONDUIT SIZE	CONDUCTORS			
		FOR FIXTURES	FOR RECEPTACLES	FOR SERVICE	FOR GROUND
2AR	2"	4*10	8*4, 6*6, 4*8 & 4*4, 4*6, 4*10		1*4G
A	2"	4*10			1*6G
AR9	2"	4*10	8*4, 6*6, 4*8		1*4G
AR6	2"	4*10	4*4, 4*6, 4*8		1*4G
AR6M	2"	4*10	4*4, 4*6, 4*10		1*4G
AR4	2"	4*10	4*4, 4*6,		1*4G
AR3	2"	4*10	4*4, 2*6		1*4G
AR2	2"	4*10	4*4		1*4G
B	2"	2*10			1*6G
BR2	2"	2*10	4*4		1*4G
C	3"			3*2/0	1*6G

1. MAXIMUM OF 270° IN TOTAL BENDS PERMITTED IN SINGLE RUN OF CONDUIT
2. LIGHTS SHALL BE FUSED AT BASE WITH Y-TYPE FUSE KIT. WITH WATERPROOF INSULATED SEAL "FLOOD SEAL" SIZE OF SEAL SHALL MATCH WIRE AND HAVE A 10 AMP FUSE.
3. CIRCUIT CONDUCTORS INCLUDING NEUTRAL CONDUCTOR SHALL BE CLEARLY IDENTIFIED BY CORROSION RESISTANT TAGS INDICATING CIRCUIT NUMBER AND PANEL SOURCES AT EVERY POLE BASE AND HANDHOLE.
4. UTILIZE APPROVED DUAL-RATED PARALLEL TAP CONNECTOR WITH INSULATED COVER FOR TAPS AT POLE BASE.
5. UTILIZE APPROVED DUAL-RATED PARALLEL TAP CONNECTOR WITH WATERTIGHT CONNECTOR, SUITABLE FOR DIRECT BURIAL IN JUNCTION BOXES, HANDHOLES AND MANHOLES.

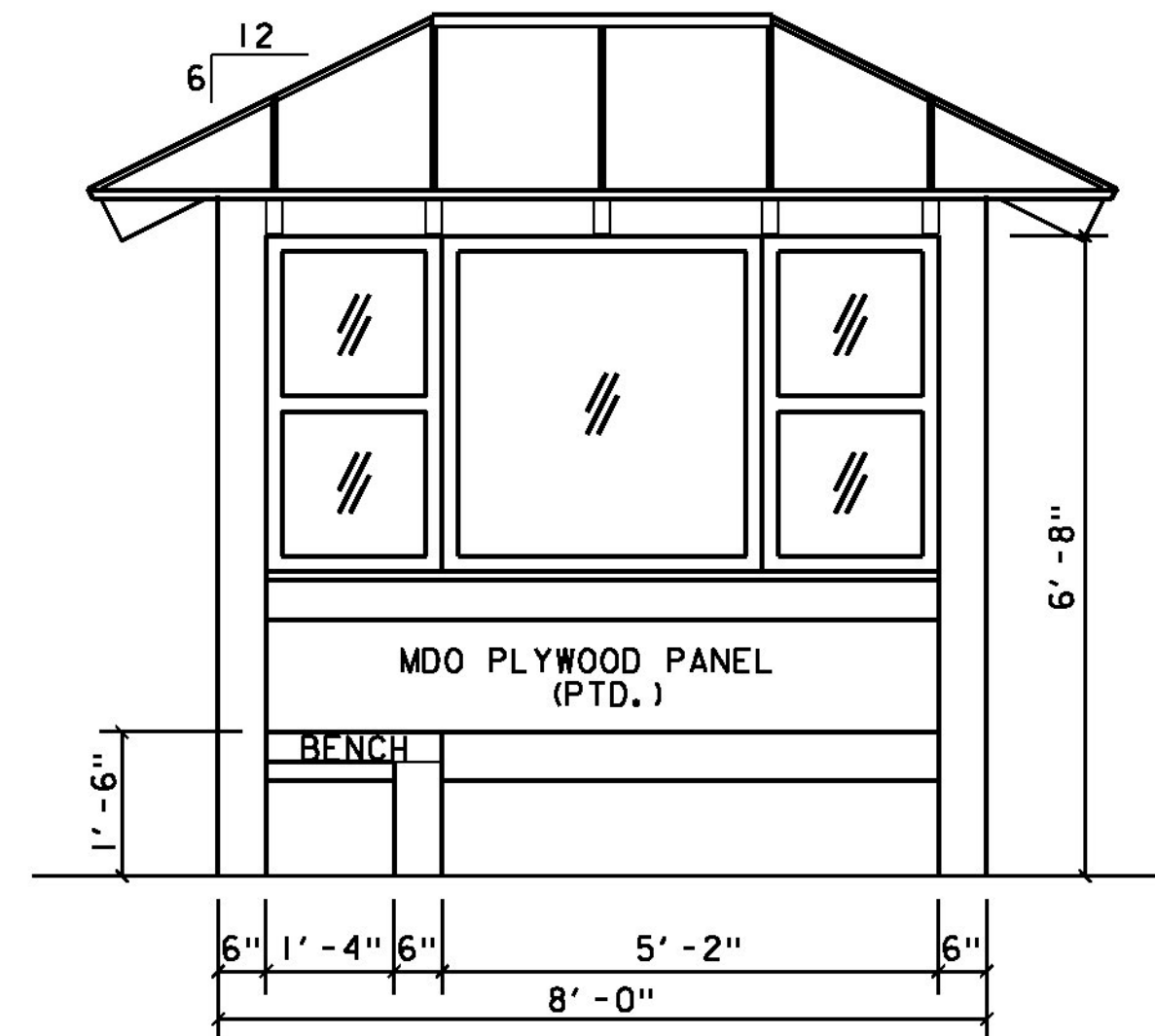


PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 23 OF 43

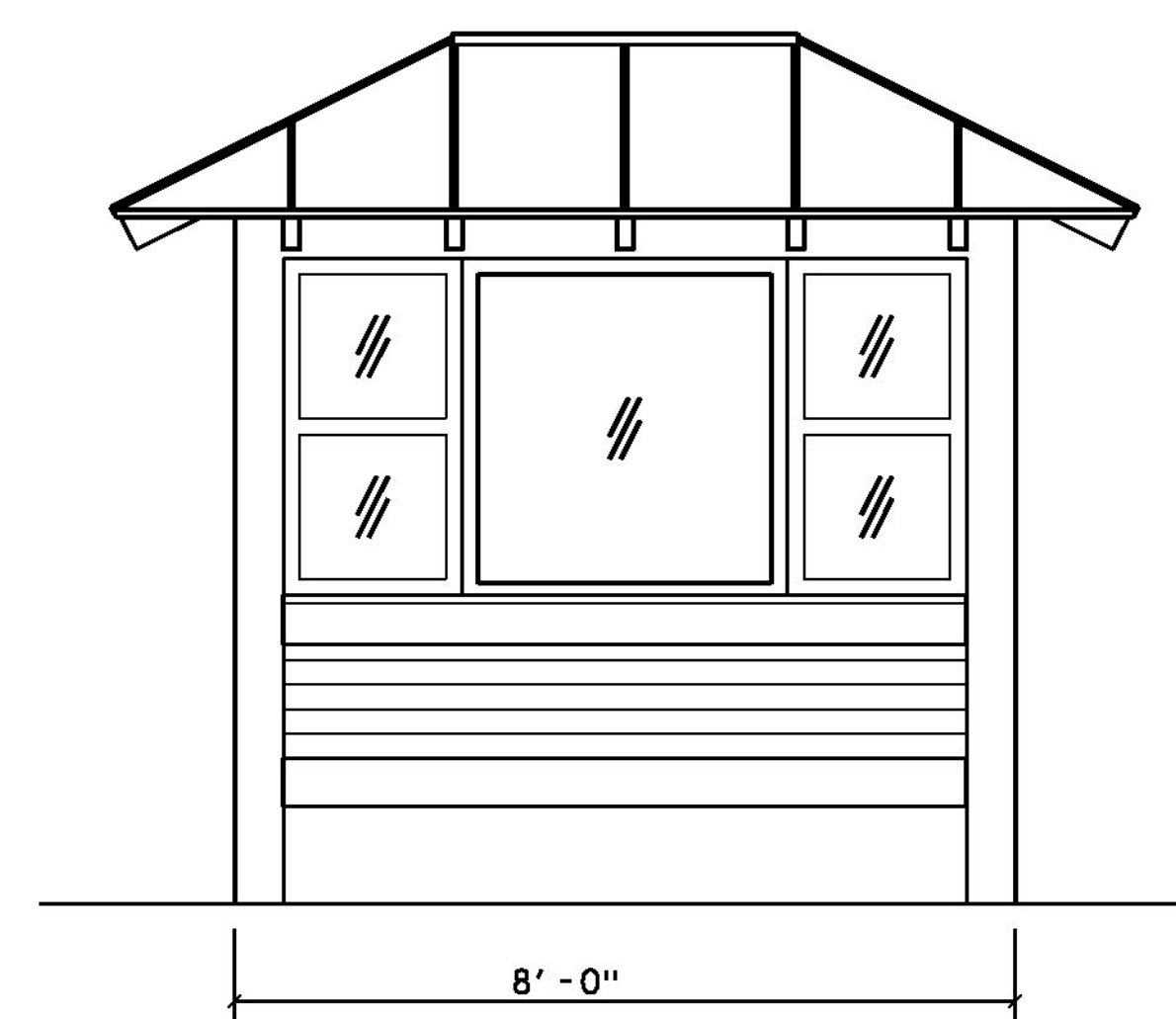




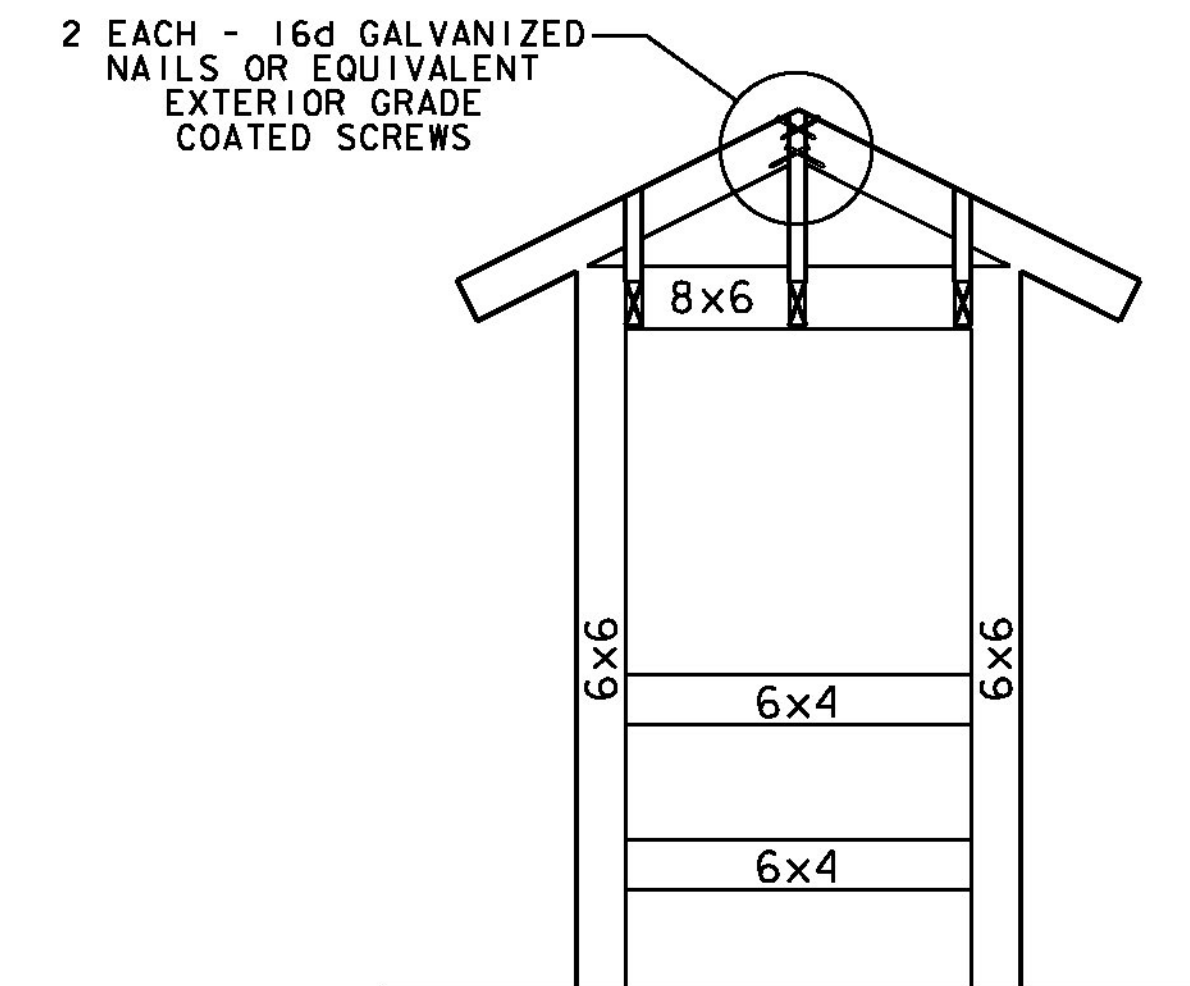
END ELEVATION (TYP.)
SCALE: 1/2" = 1'-0"



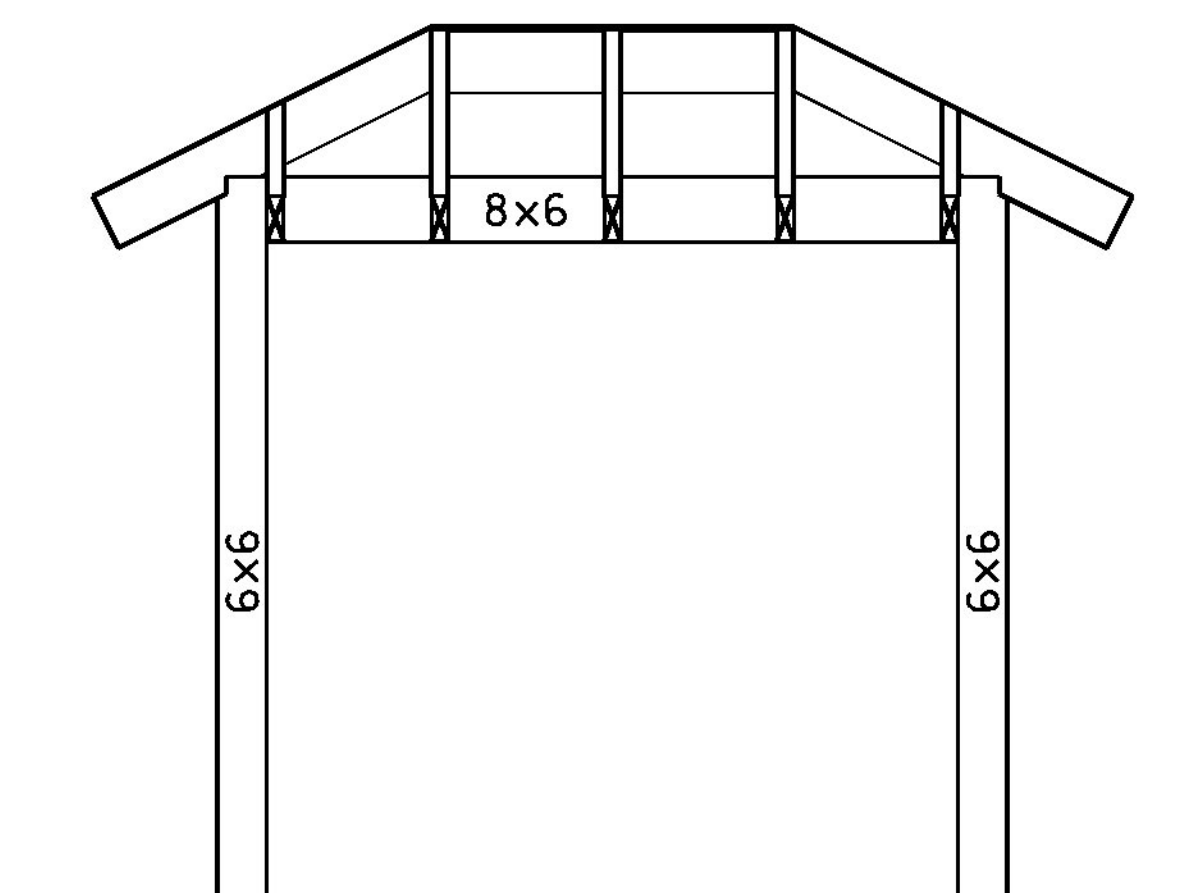
FRONT/INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"



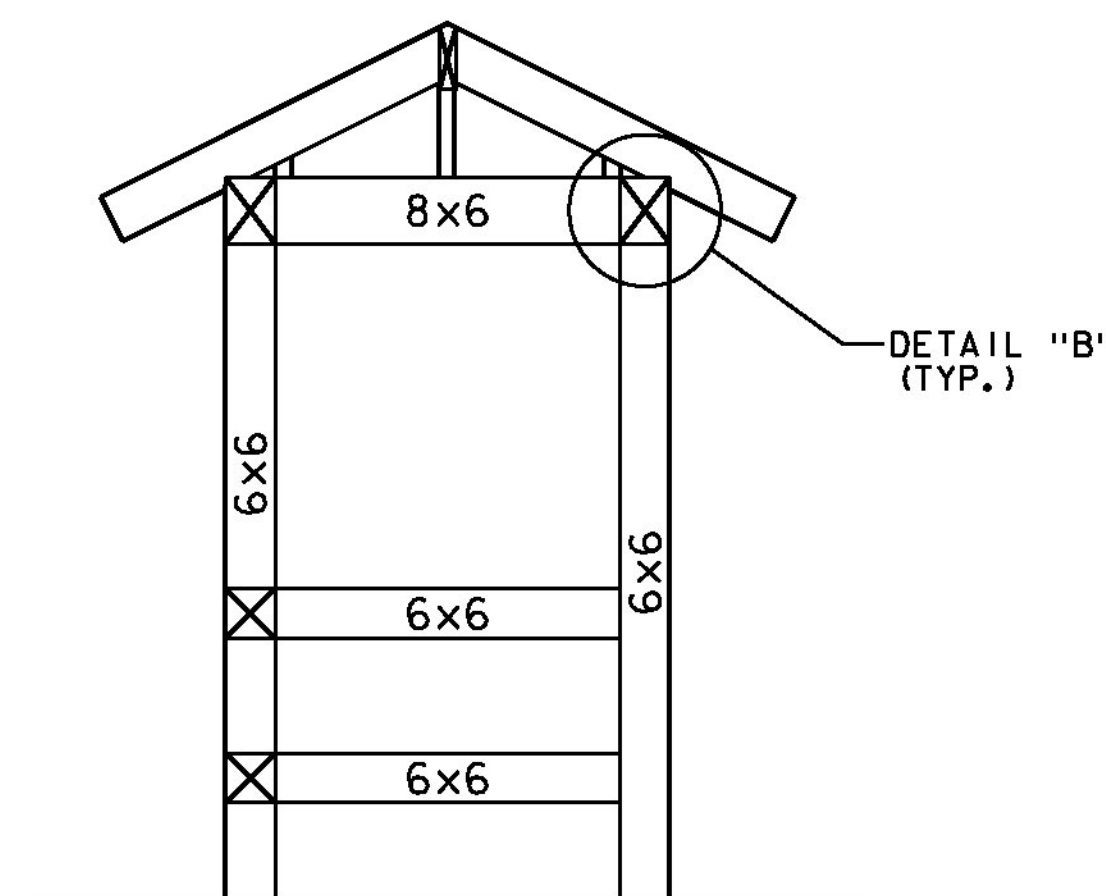
REAR ELEVATION
SCALE: 1/2" = 1'-0"



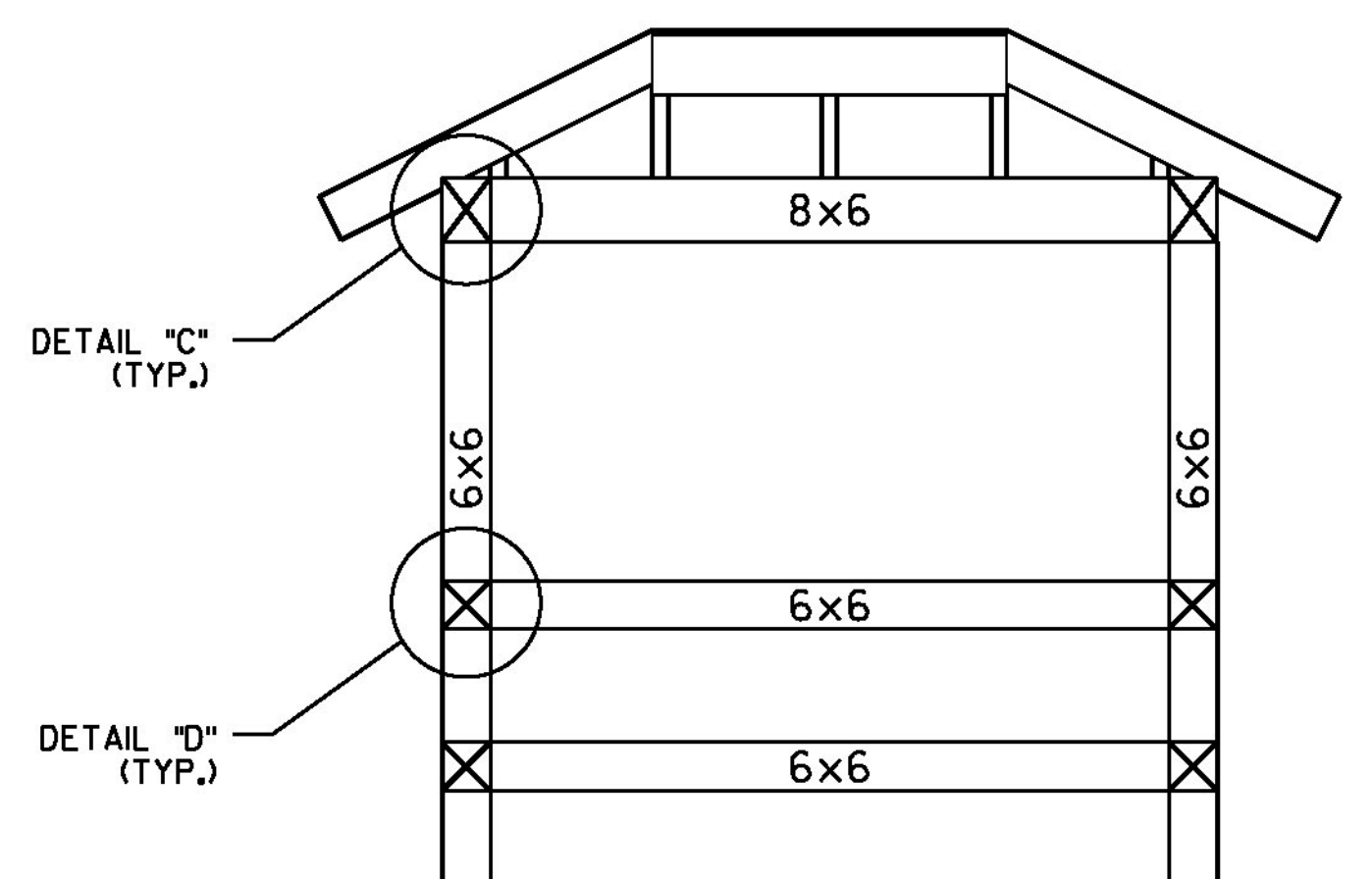
END FRAMING - ELEVATION
SCALE: 1/2" = 1'-0"



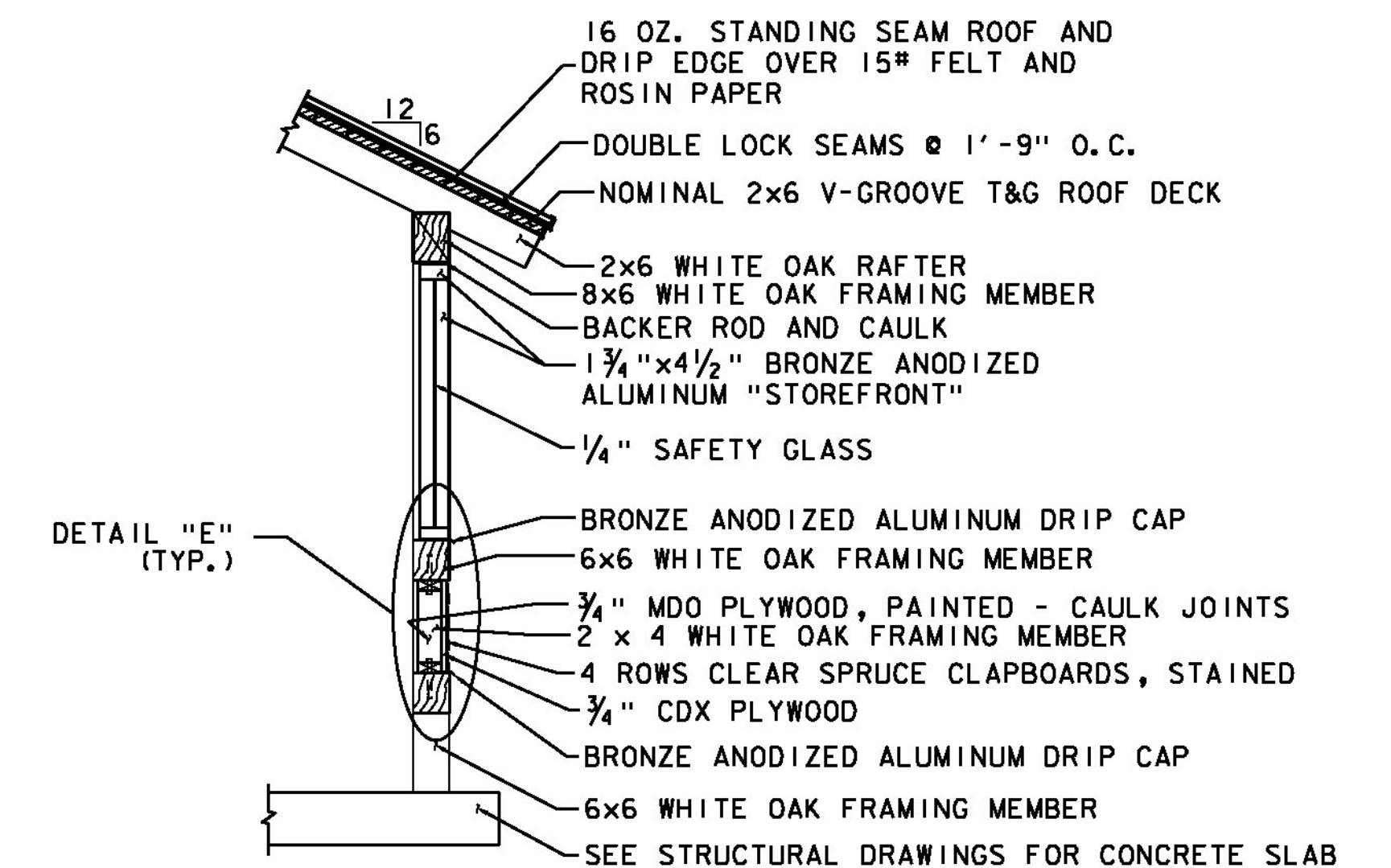
FRONT/REAR FRAMING - ELEVATION
SCALE: 1/2" = 1'-0"



END FRAMING - SECTION
SCALE: 1/2" = 1'-0"

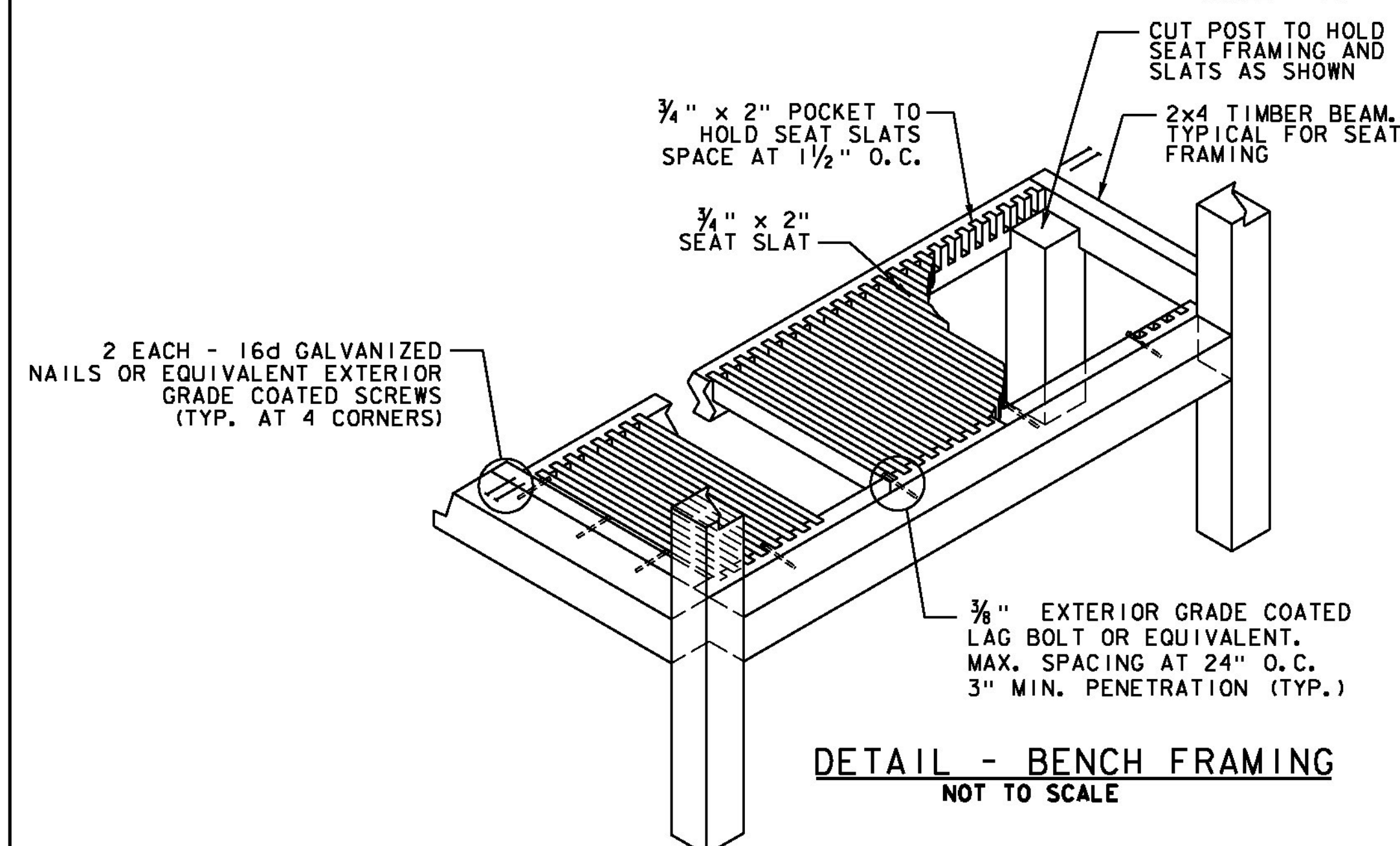


FRONT/REAR FRAMING - SECTION
SCALE: 1/2" = 1'-0"



TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"

- NOTES
1. JACK AND COMMON RAFTERS ARE 2x6.
 2. HIP RAFTERS ARE 2x7
 3. RIDGE BEAM IS 2x8



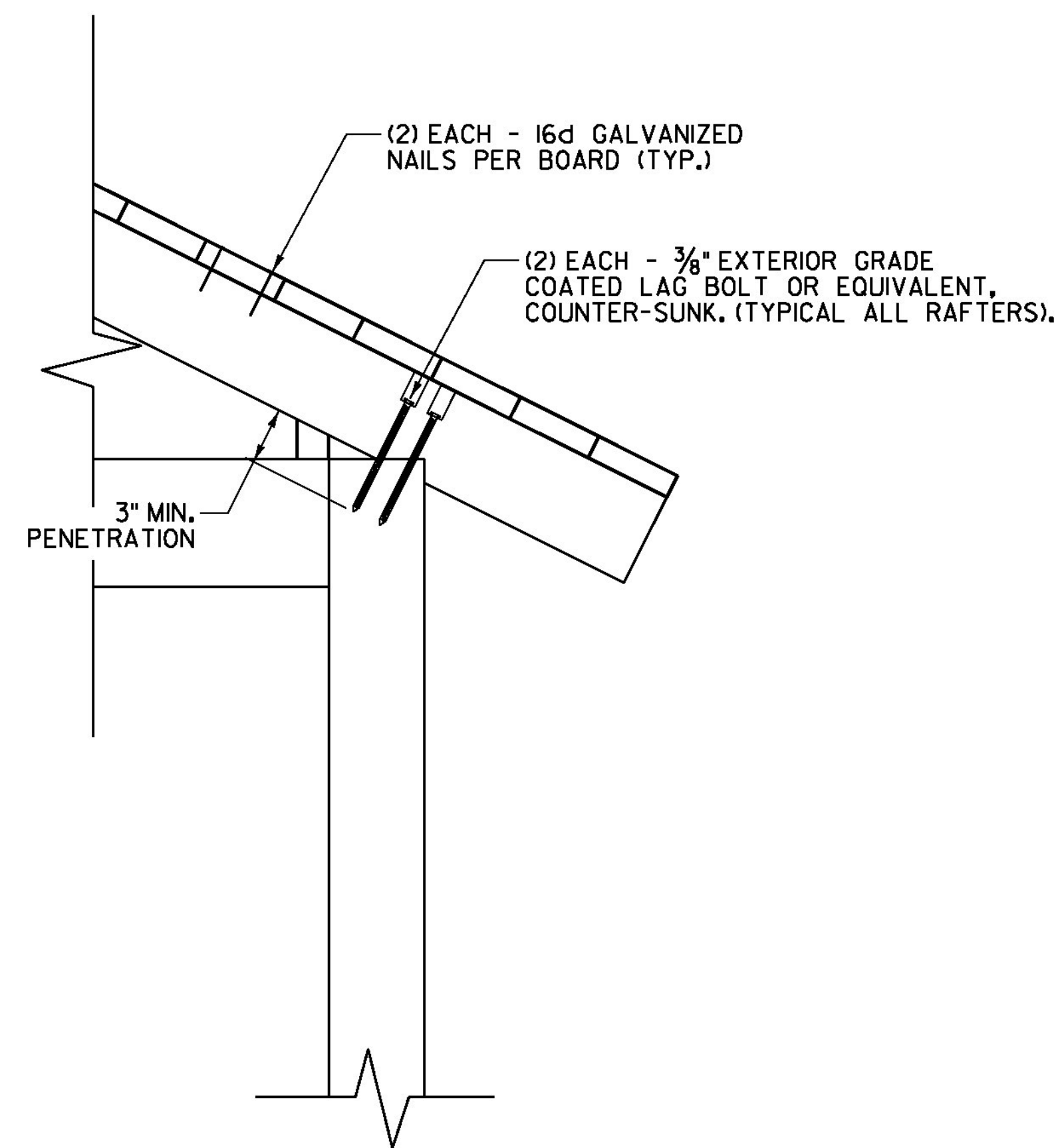
DETAIL - BENCH FRAMING
NOT TO SCALE

- NOTE:
- FOR DETAILS B & C, SEE BUSH SHELTER DETAILS 3.
 - FOR DETAILS D & E, SEE BUS SHELTER DETAILS 4.
 - ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.

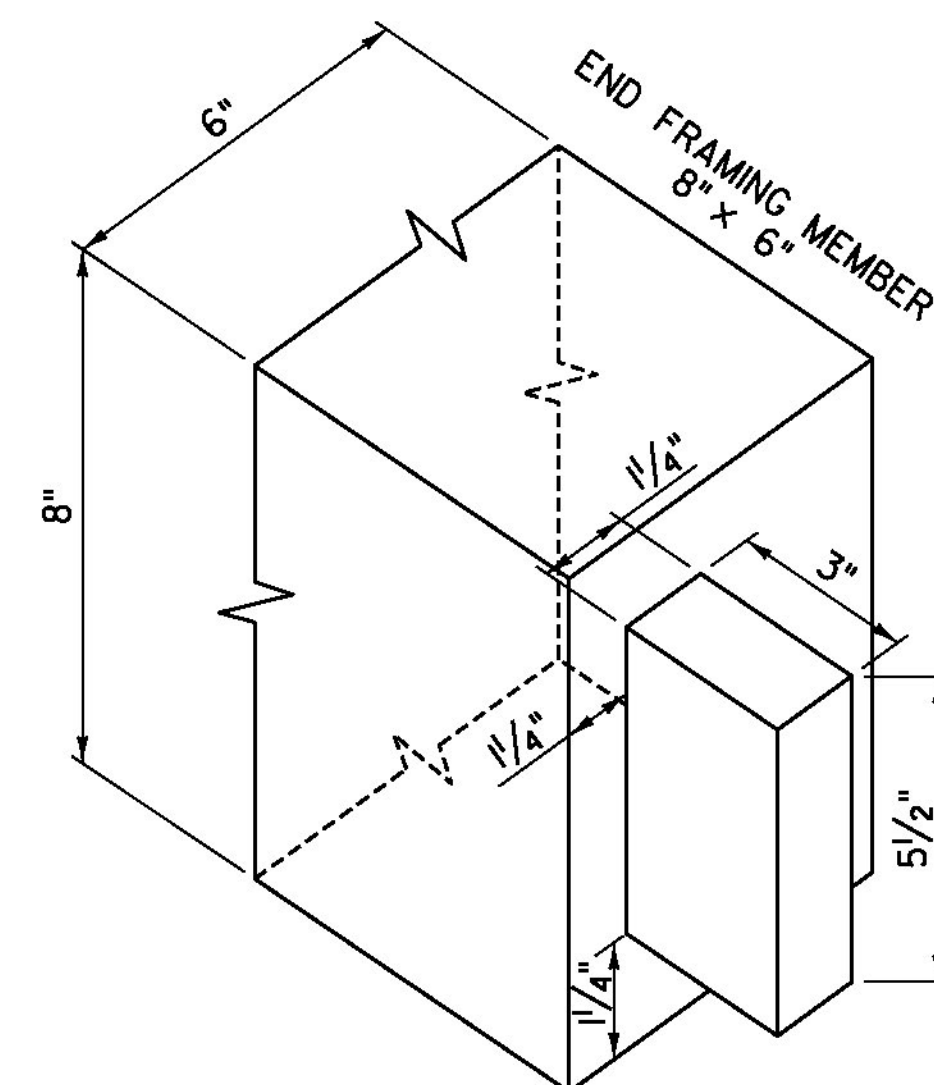
PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09k250shitr_def.dgn PLOT DATE: 6/25/2014
PROJECT LEADER: M. FOISY DRAWN BY: L. BUXTON
DESIGNED BY: J. HUNGERFORD CHECKED BY: G. BOGUE
BUS SHELTER DETAILS 2 SHEET 26 OF 43

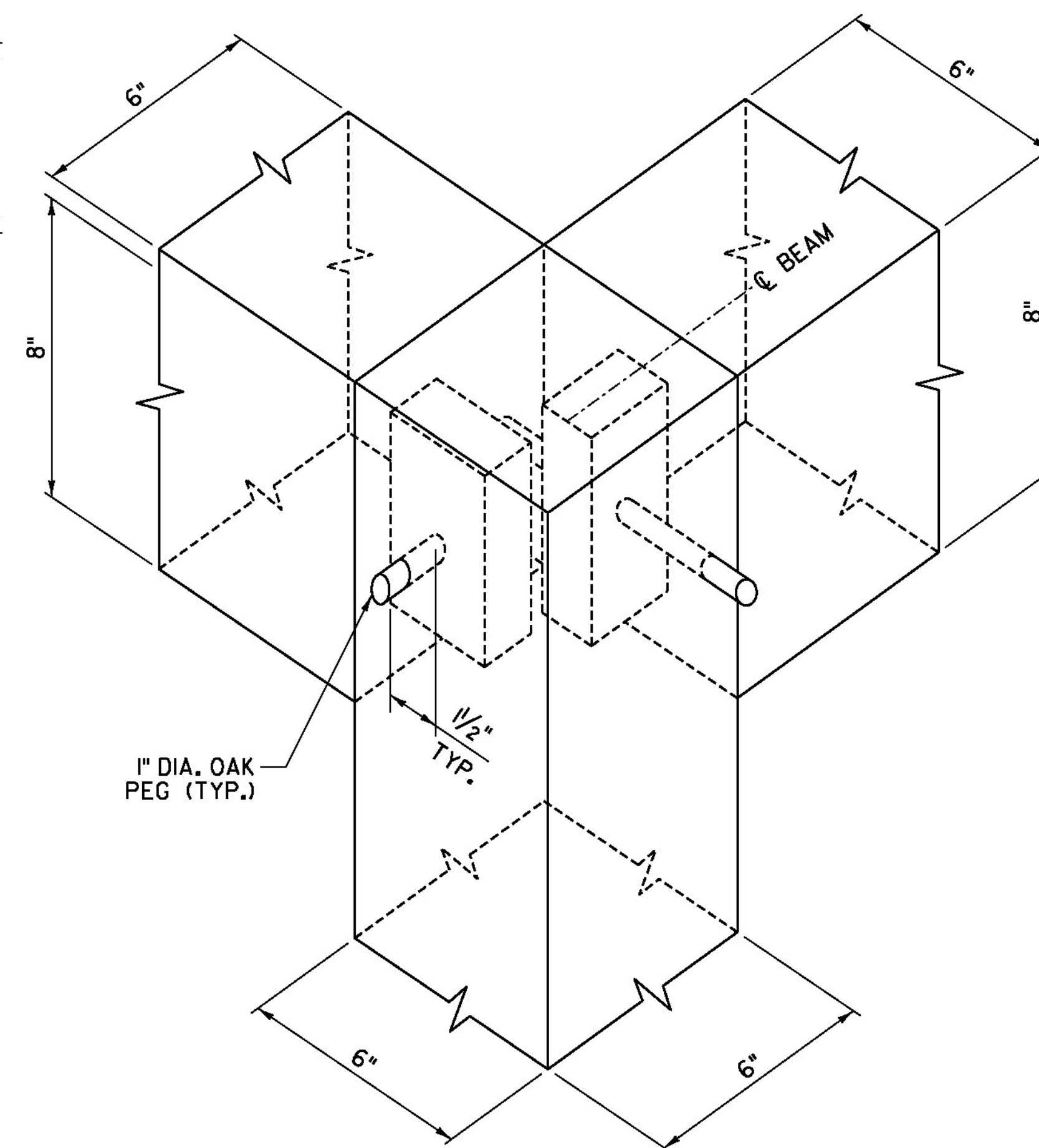




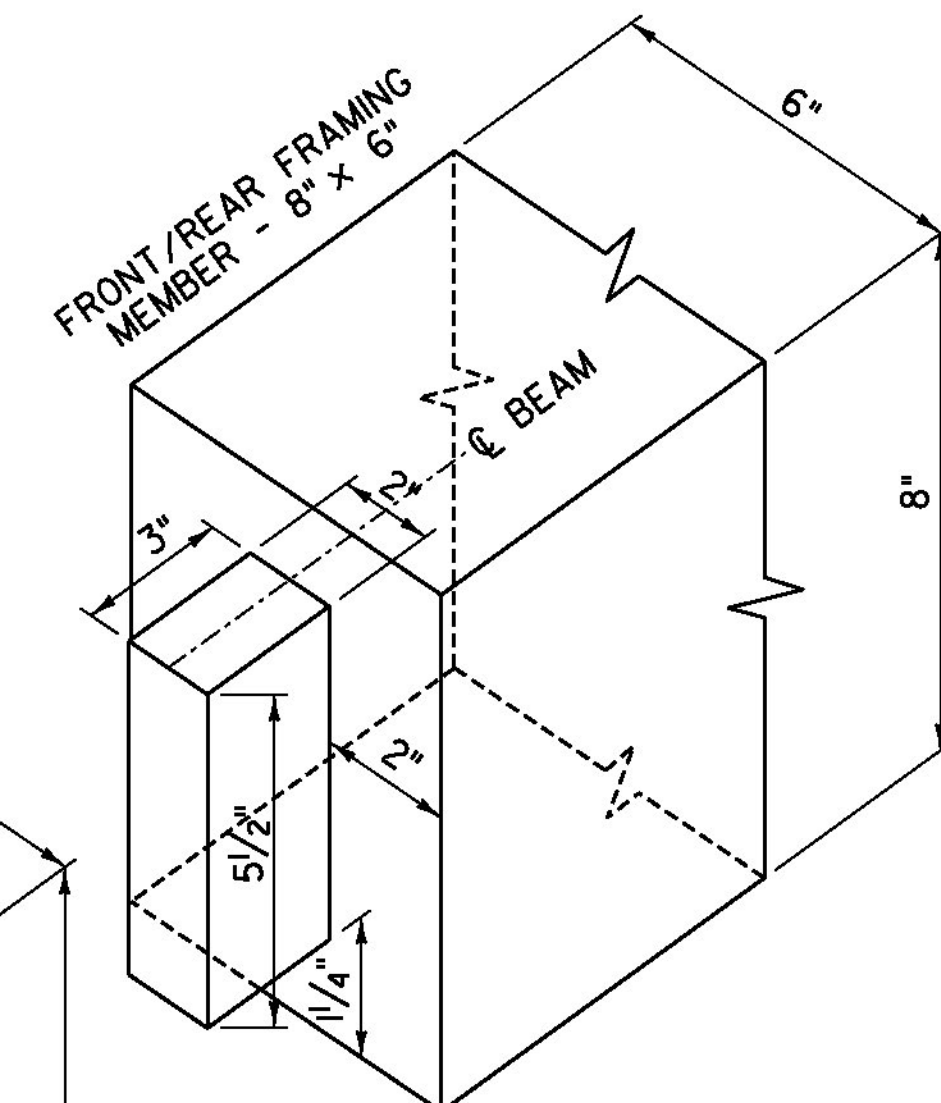
DETAIL "B"
SCALE 1 1/2" = 1'-0"



MORTISE & TENON
DETAIL



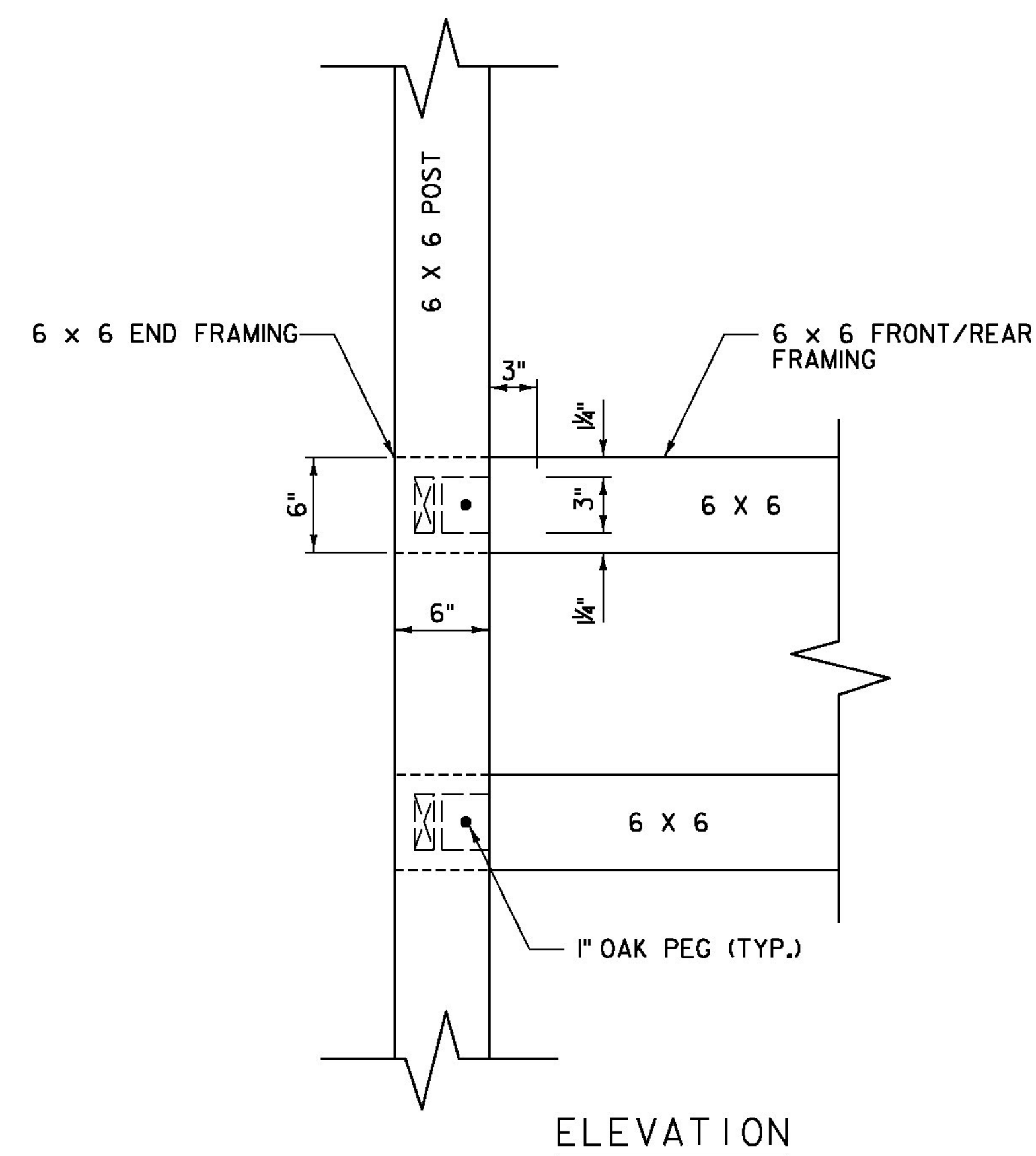
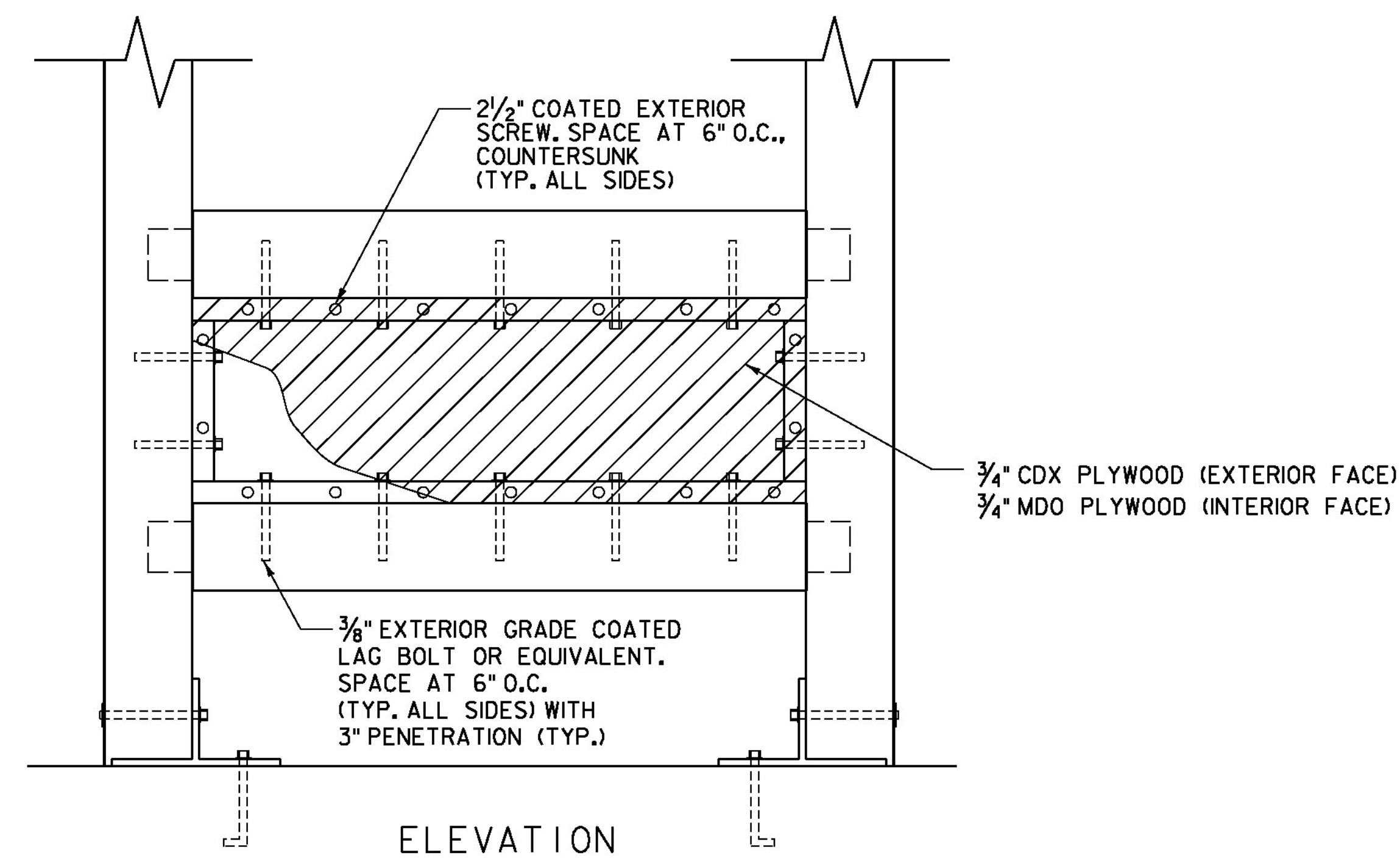
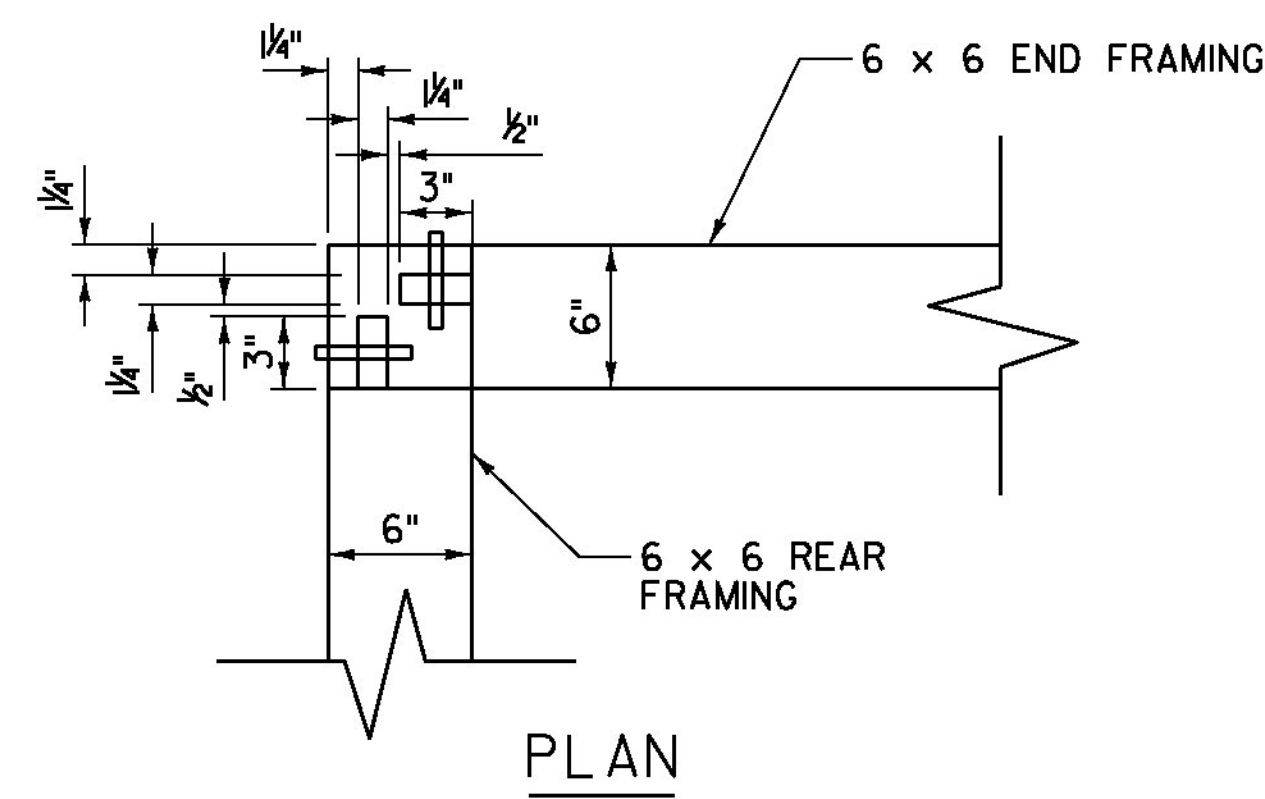
DETAIL "C"
SCALE 1 1/2" = 1'-0"



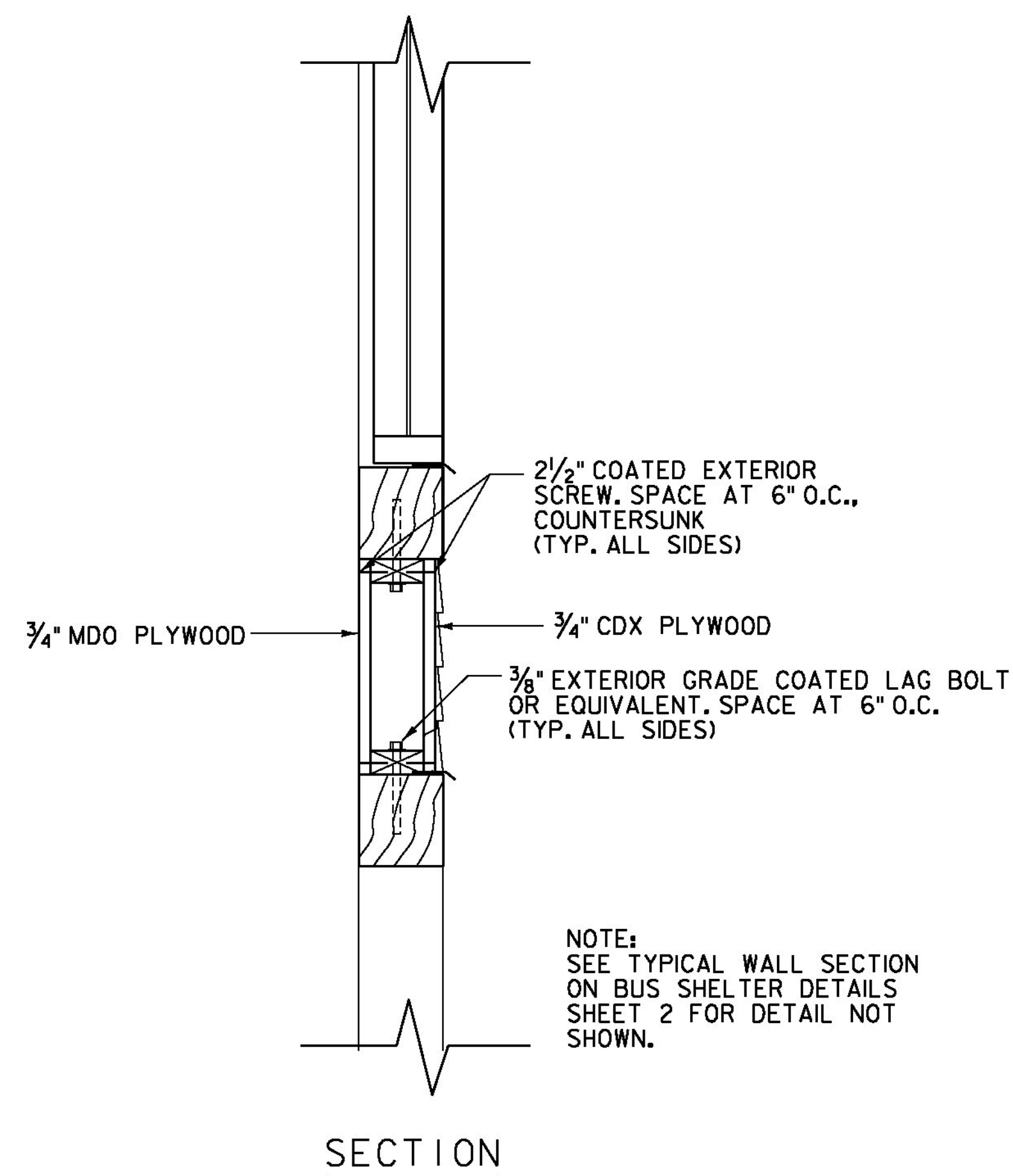
MORTISE & TENON
DETAIL



PROJECT NAME:	SPRINGFIELD	FILE NAME:	z09k250shitr_det.dgn	PLOT DATE:	6/25/2014
PROJECT NUMBER:	CMG PARK (32)	PROJECT LEADER:	M. FOISY	DRAWN BY:	L. BUXTON
		DESIGNED BY:	J. HUNGERFORD	CHECKED BY:	G. BOGUE
		BUS SHELTER DETAILS 3		SHEET	27 OF 43



DETAIL "D"
SCALE 1 1/2" = 1'-0"

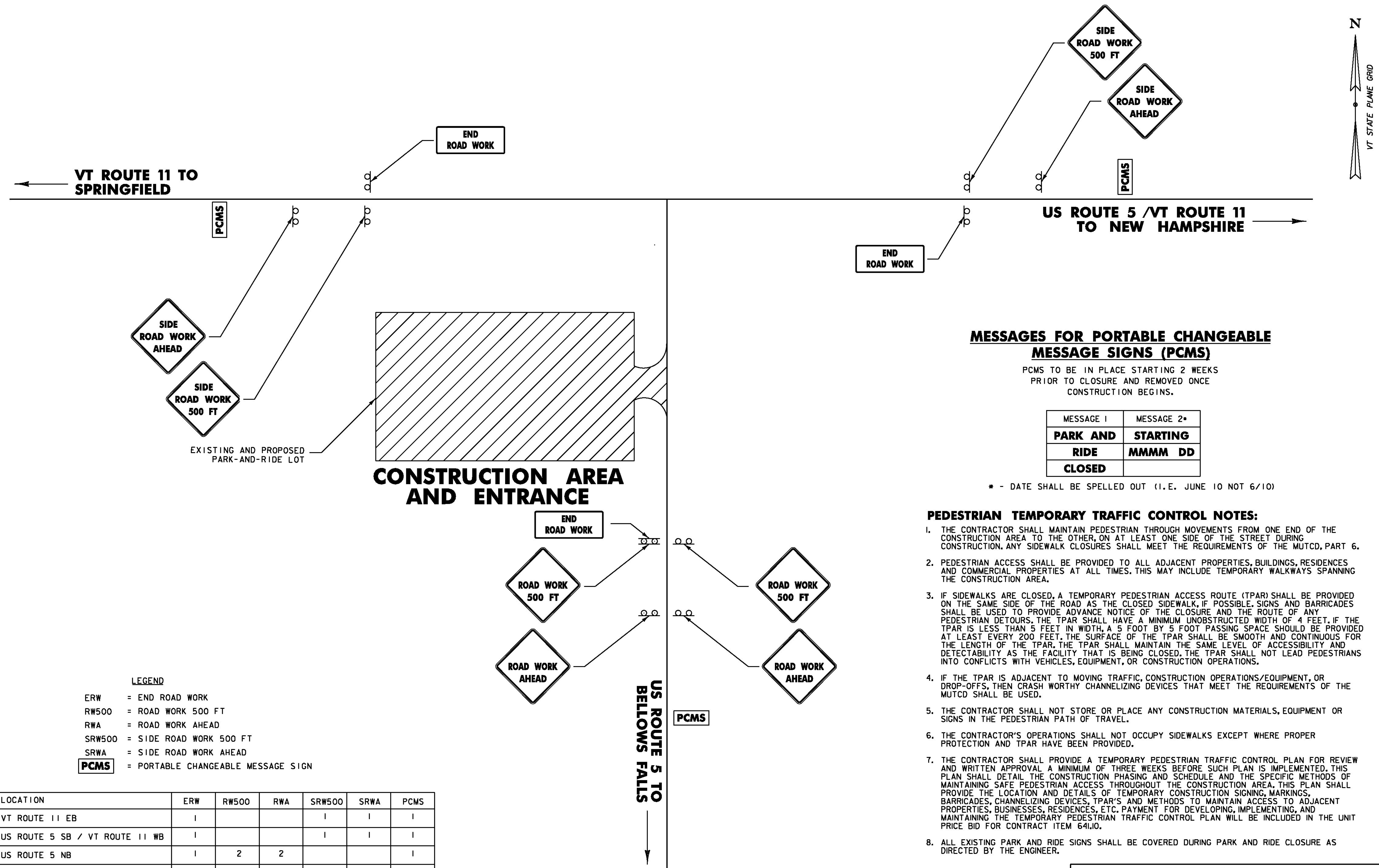


DETAIL "E"
SCALE 1 1/2" = 1'-0"

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.



PROJECT NAME:	SPRINGFIELD	FILE NAME:	z09k250shitr_det.dgn	PLOT DATE:	6/25/2014
PROJECT NUMBER:	CMG PARK (32)	PROJECT LEADER:	M. FOISY	DRAWN BY:	L. BUXTON
		DESIGNED BY:	J. HUNGERFORD	CHECKED BY:	G. BOGUE
		BUS SHELTER DETAILS 4		SHEET	28 OF 43



- LEGEND
- ERW = END ROAD WORK
 - RW500 = ROAD WORK 500 FT
 - RWA = ROAD WORK AHEAD
 - SRW500 = SIDE ROAD WORK 500 FT
 - SRWA = SIDE ROAD WORK AHEAD
 - PCMS = PORTABLE CHANGEABLE MESSAGE SIGN

LOCATION	ERW	RW500	RWA	SRW500	SRWA	PCMS
VT ROUTE 11 EB	1			1	1	1
US ROUTE 5 SB / VT ROUTE 11 WB	1			1	1	1
US ROUTE 5 NB	1	2	2			1
TOTALS	3	2	2	2	2	3

CONSTRUCTION APPROACH SIGNING

NOT TO SCALE
SEE VTrans STANDARDS T-1, T-10, T-30 FOR SIGN PLACEMENT.

MESSAGES FOR PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)

PCMS TO BE IN PLACE STARTING 2 WEEKS PRIOR TO CLOSURE AND REMOVED ONCE CONSTRUCTION BEGINS.

MESSAGE 1	MESSAGE 2*
PARK AND RIDE	STARTING
CLOSED	MMMM DD

* - DATE SHALL BE SPELLED OUT (I.E. JUNE 10 NOT 6/10)

PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES:

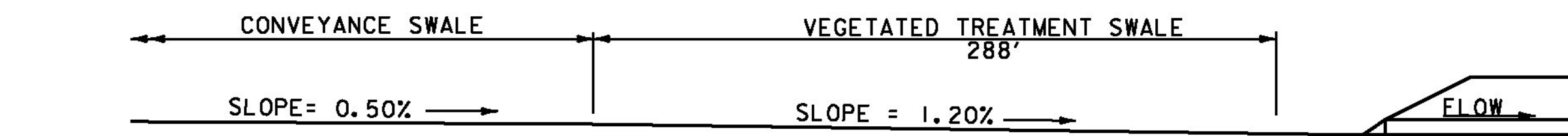
- THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MUTCD, PART 6.
- PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES AND COMMERCIAL PROPERTIES AT ALL TIMES. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.
- IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4 FEET. IF THE TPAR IS LESS THAN 5 FEET IN WIDTH, A 5 FOOT BY 5 FOOT PASSING SPACE SHOULD BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE SMOOTH AND CONTINUOUS FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICTS WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.
- IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP-OFFS, THEN CRASH WORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE MUTCD SHALL BE USED.
- THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.
- THE CONTRACTOR'S OPERATIONS SHALL NOT OCCUPY SIDEWALKS EXCEPT WHERE PROPER PROTECTION AND TPAR HAVE BEEN PROVIDED.
- THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN FOR REVIEW AND WRITTEN APPROVAL A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPAR'S AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC. PAYMENT FOR DEVELOPING, IMPLEMENTING, AND MAINTAINING THE TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.0.
- ALL EXISTING PARK AND RIDE SIGNS SHALL BE COVERED DURING PARK AND RIDE CLOSURE AS DIRECTED BY THE ENGINEER.

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

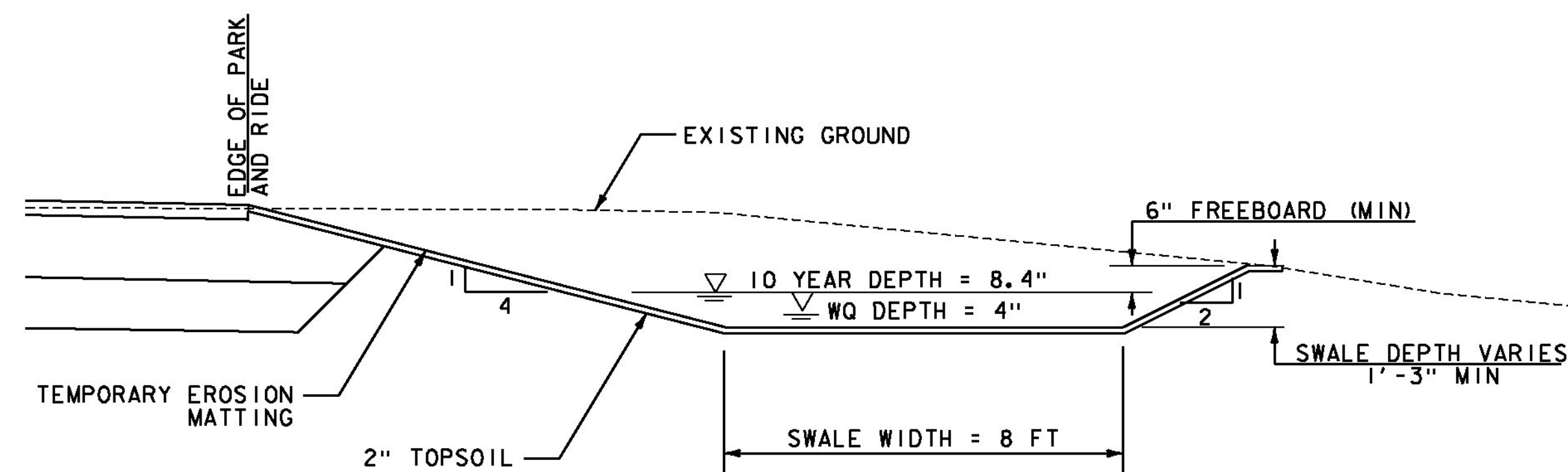
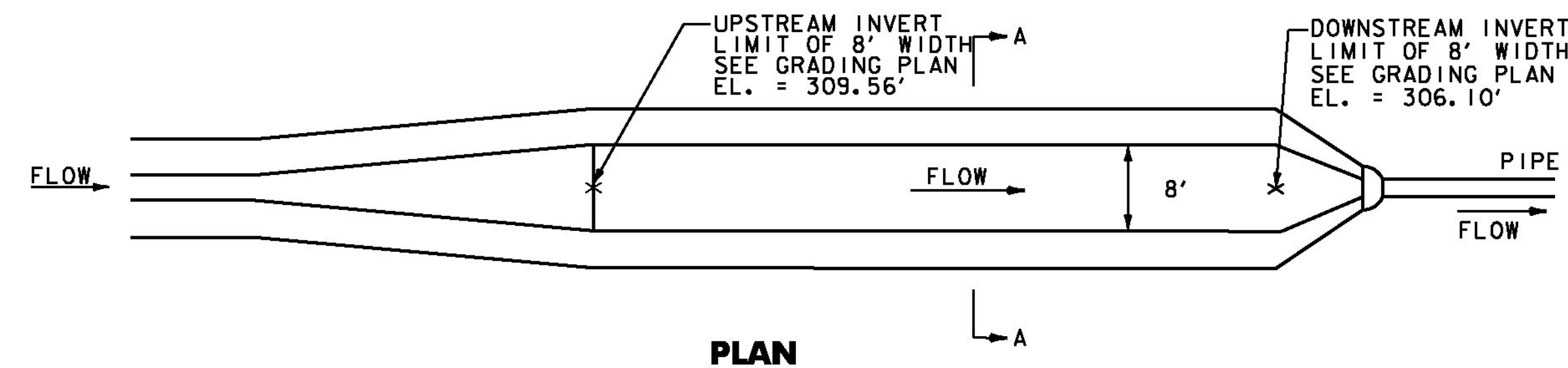
FILE NAME: z09k250+yp.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
CONSTRUCTION APPROACH SIGNING

PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 29 OF 43





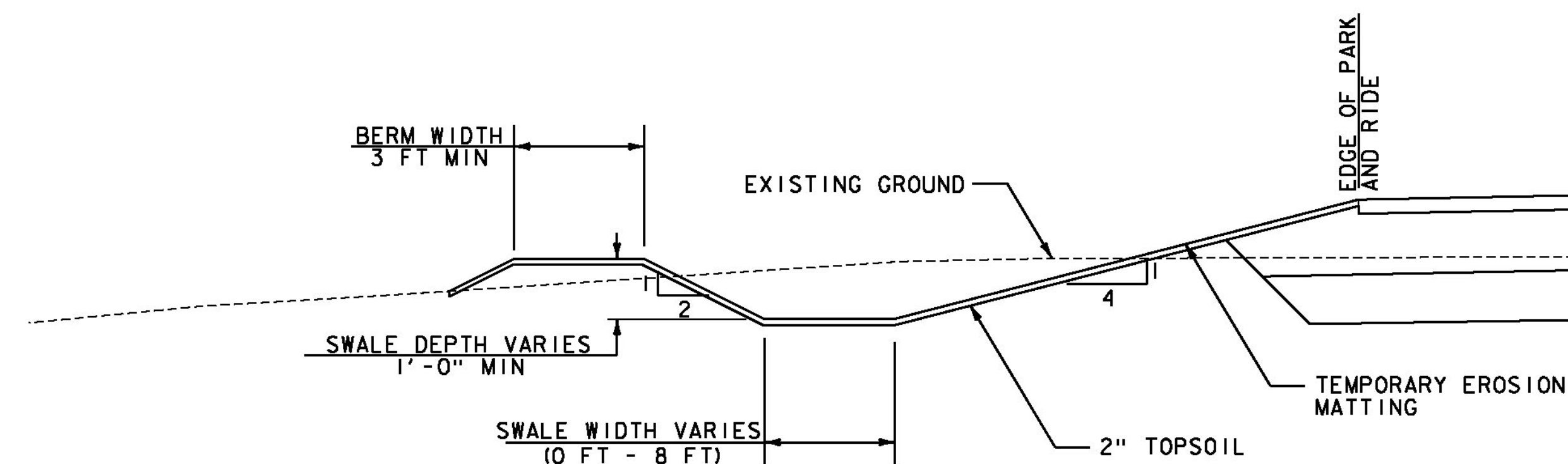
ELEVATION



VEGETATED TREATMENT SWALE

N.T.S.
SEE GRADING PLAN FOR MORE INFORMATION

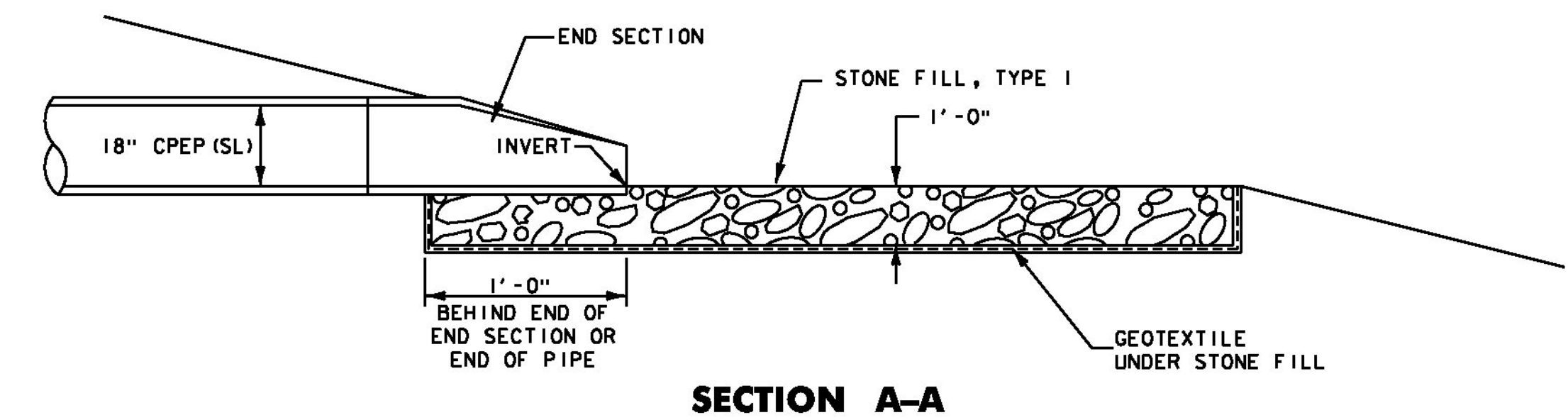
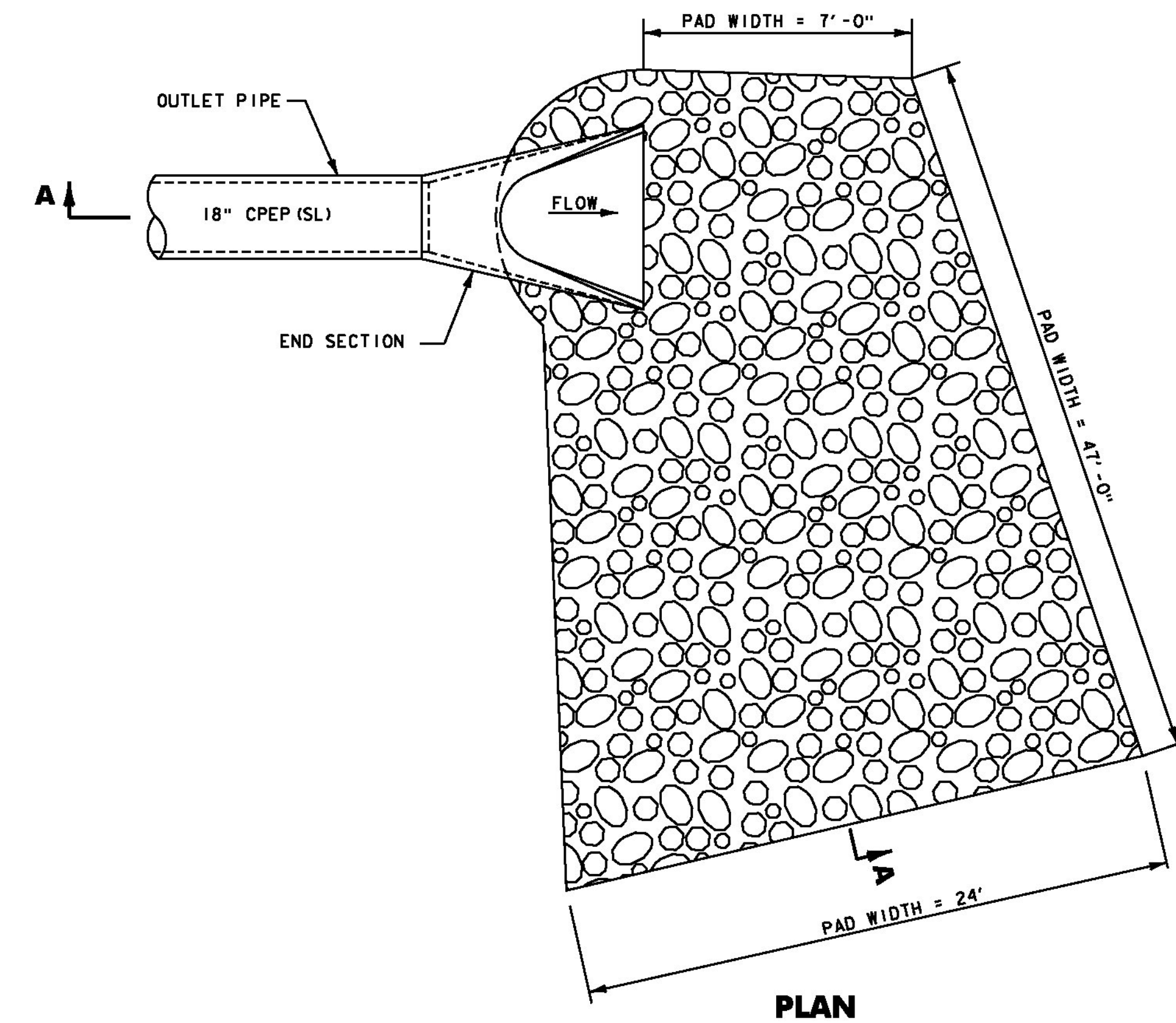
NOTES:
1. THE EXCAVATION OF THE SWALE WILL
BE PAID AS ITEM 203.15 - COMMON EXCAVATION.
ALL EXCAVATION IS ACCOUNTED FOR IN THE
EARTHWORKS SUMMARY SHEET.



CONVEYANCE SWALE

N.T.S.
SEE GRADING PLAN FOR MORE INFORMATION

NOTES:
1. THE EXCAVATION OF THE SWALE WILL
BE PAID AS ITEM 203.15 - COMMON EXCAVATION.
ALL EXCAVATION IS ACCOUNTED FOR IN THE
EARTHWORKS SUMMARY SHEET.



STONE OUTLET PROTECTION

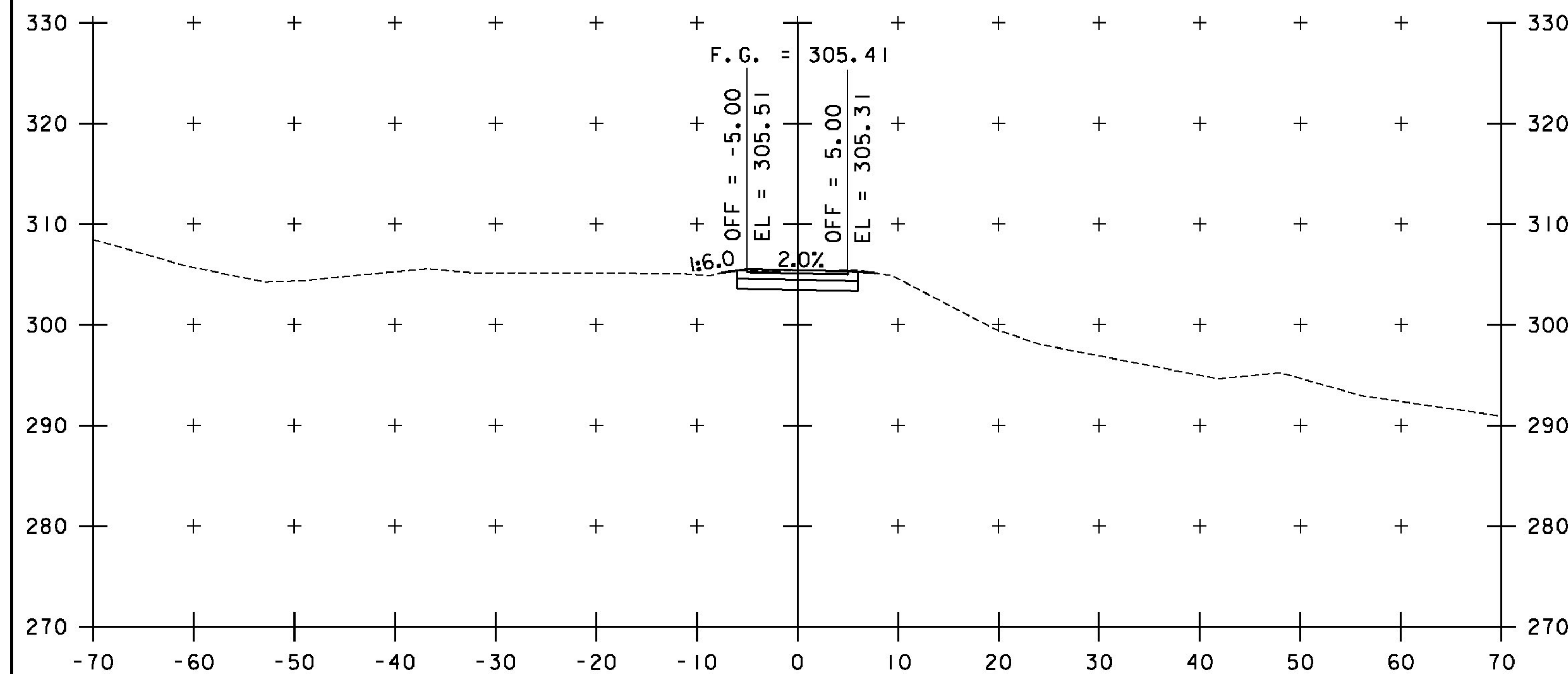
N.T.S.



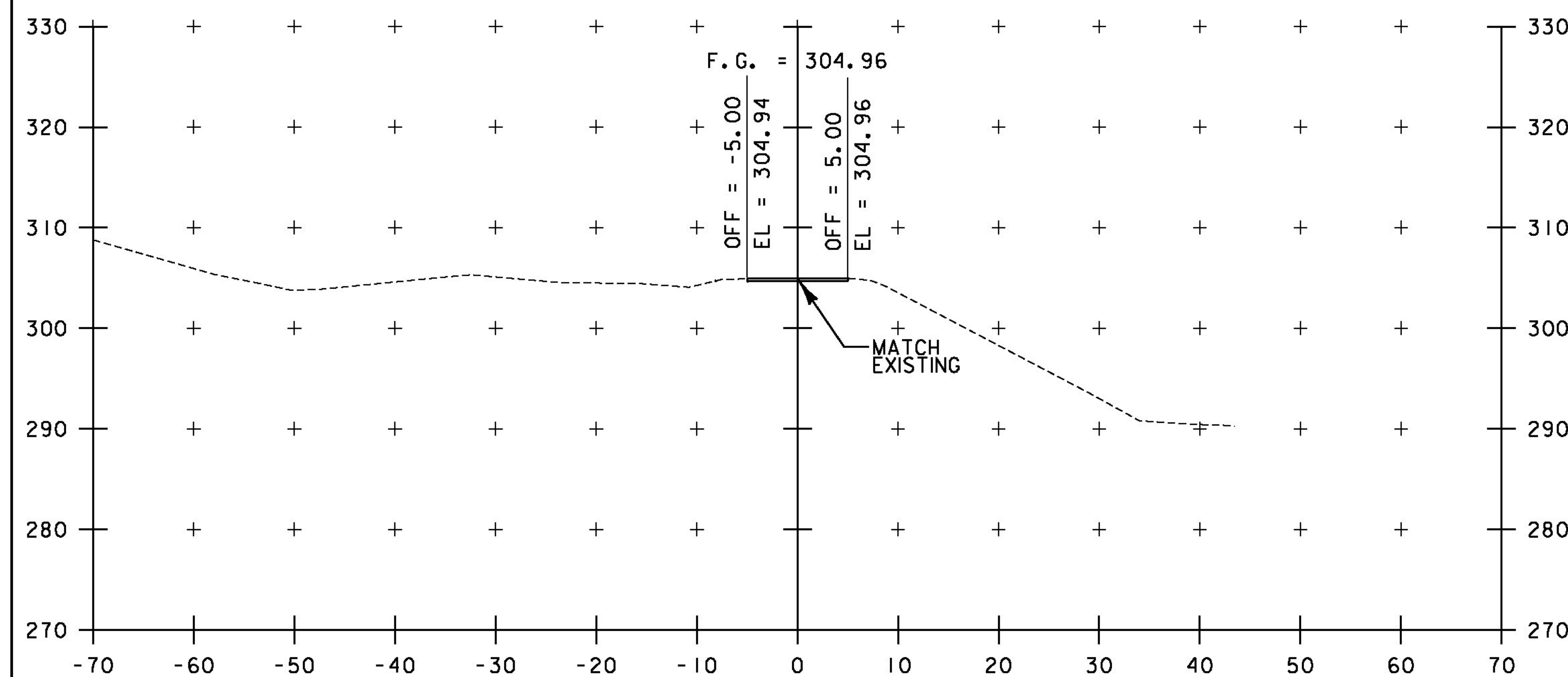
PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09k250+yp.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
STORMWATER MANAGEMENT DETAILS

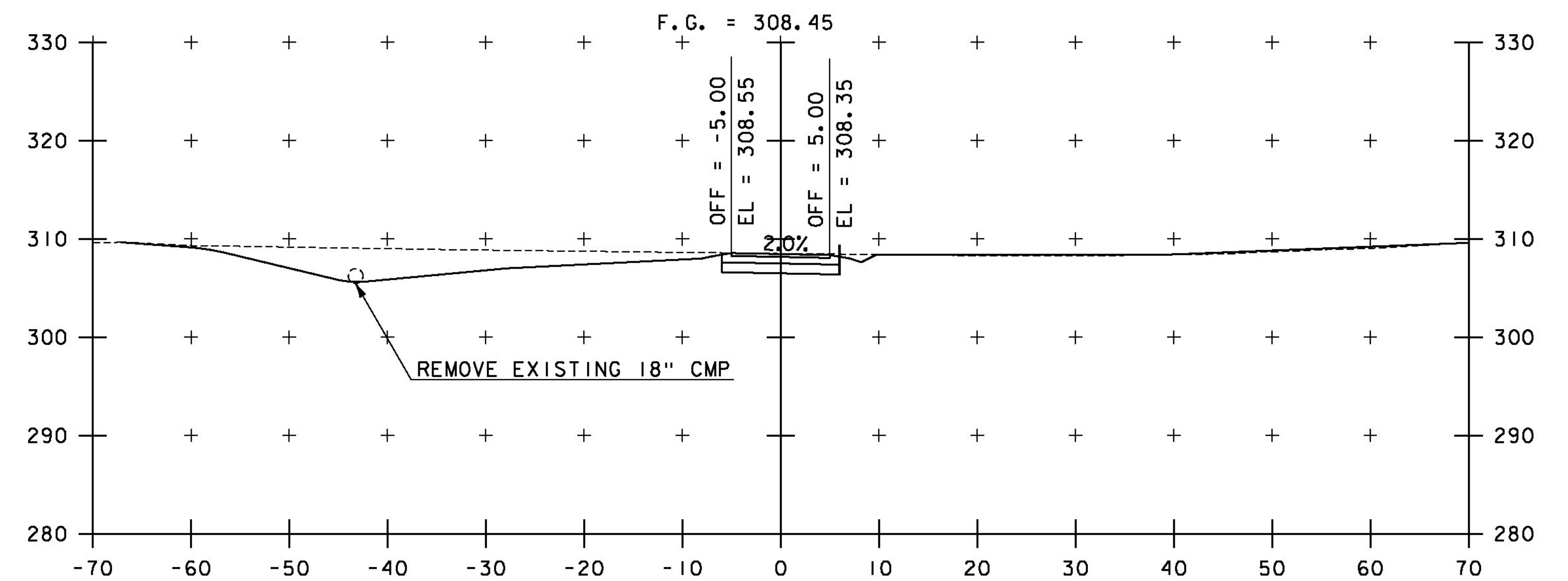
PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 30 OF 43



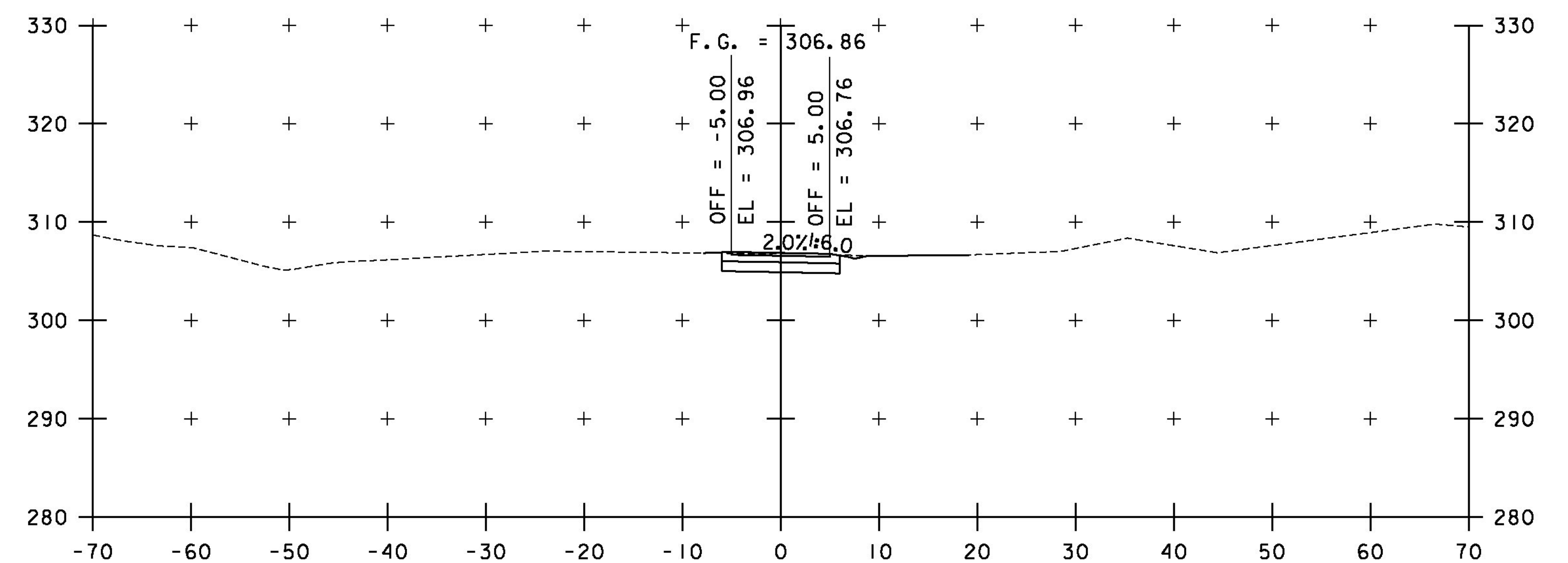
200+50



200+30
 BEGIN SHARED USE PATH



201+50

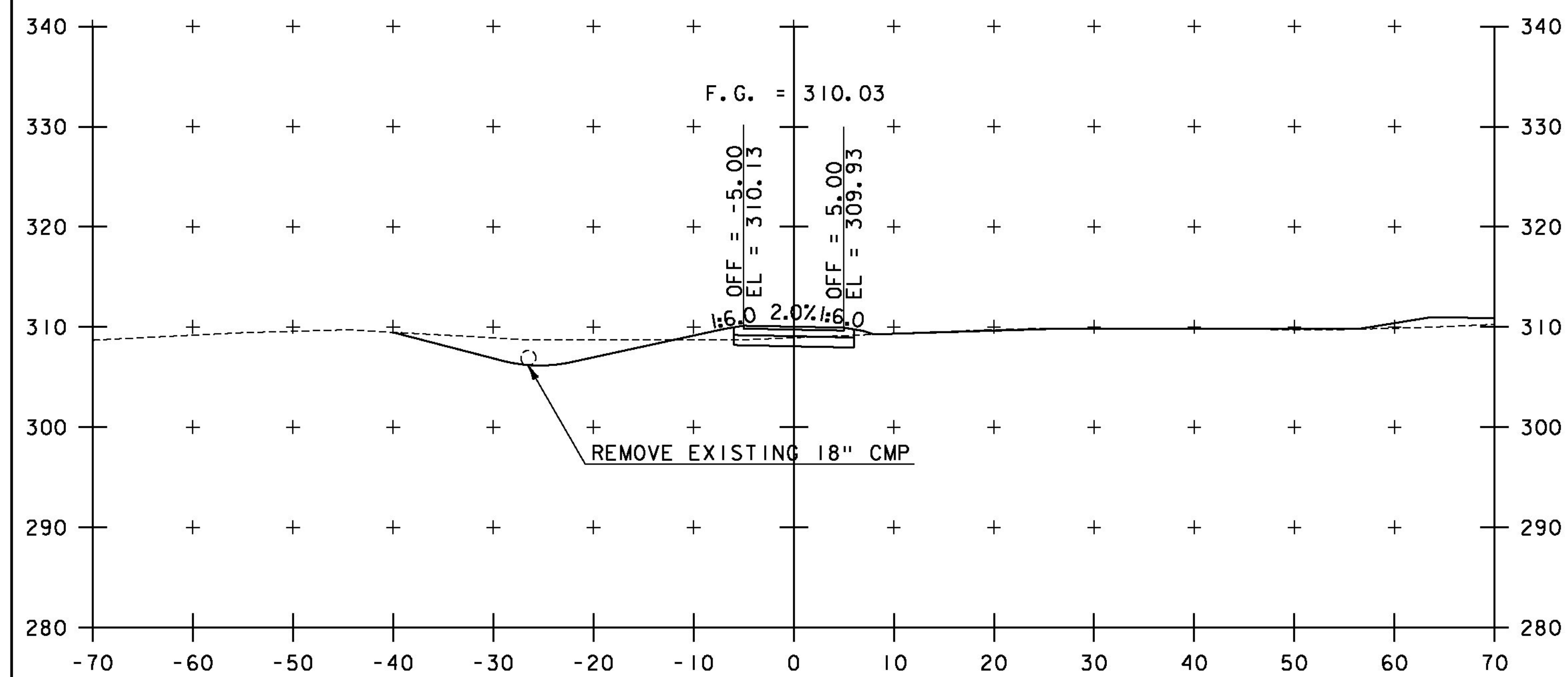
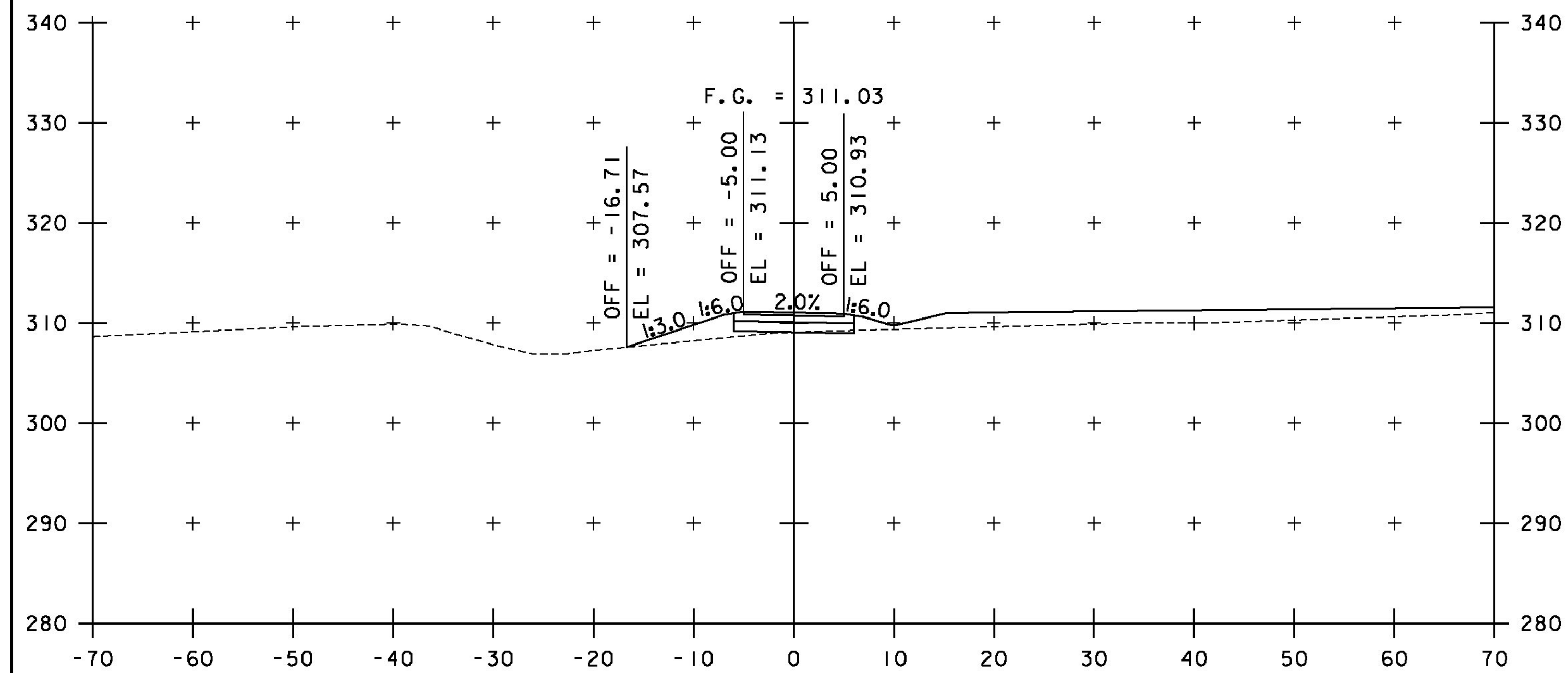


201+00

SHARED USE PATH
 STA. 200+30 TO STA. 201+50

PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	CMG PARK (32)
FILE NAME:	z09k250xs.dgn
PROJECT LEADER:	G. SANTY
DESIGNED BY:	I. MAYNARD
CROSS SECTION SHEET	1
PLOT DATE:	6/25/2014
DRAWN BY:	I. MAYNARD
CHECKED BY:	M. FOISY
SHEET	31 OF 43





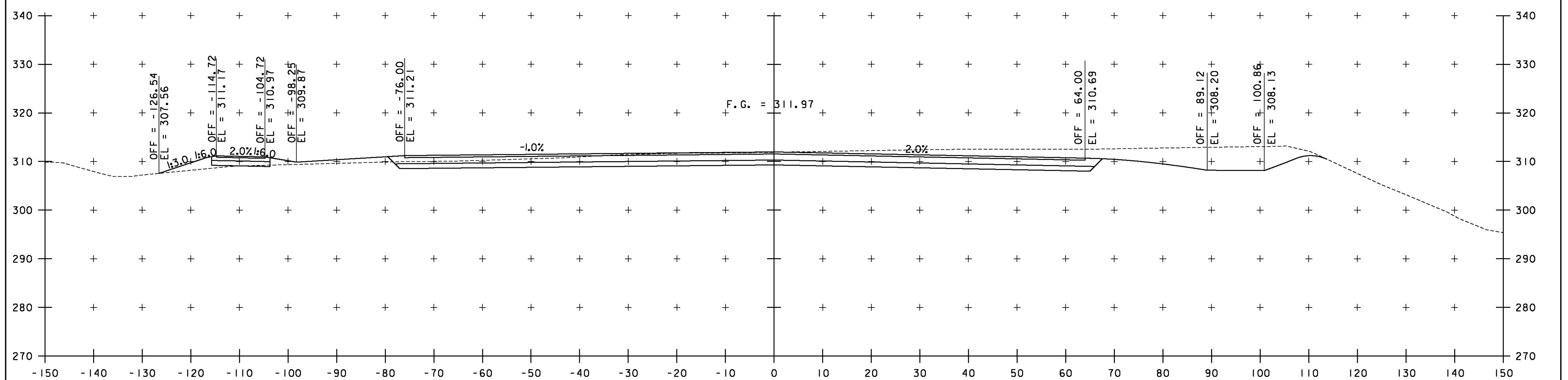
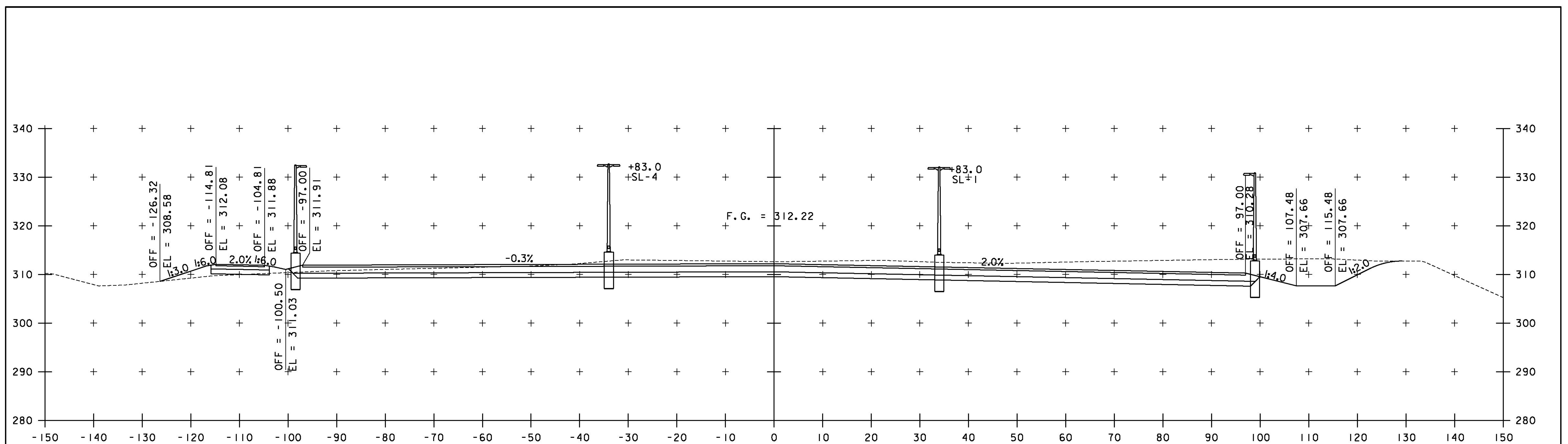
SHARED USE PATH
STA. 202+00 TO STA. 202+35

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09k250xs.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
CROSS SECTION SHEET 2

PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 32 OF 43



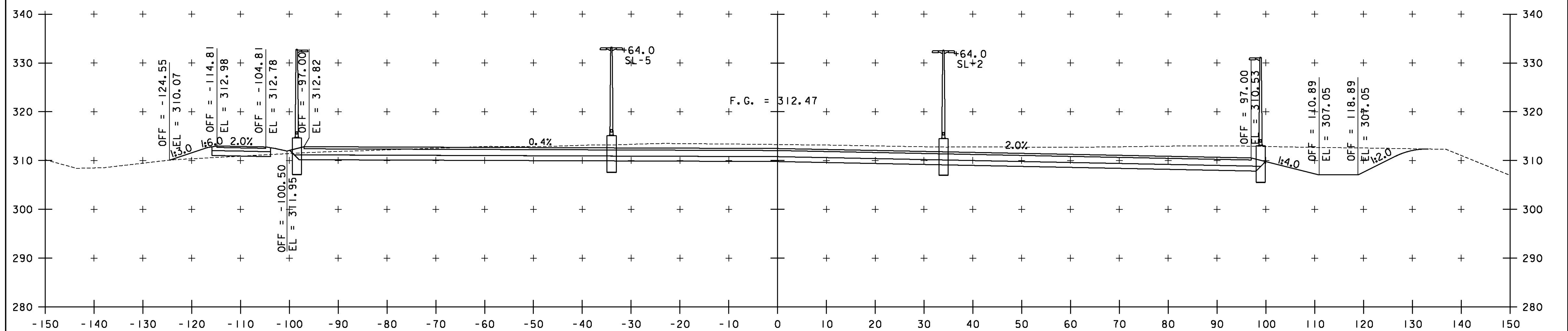
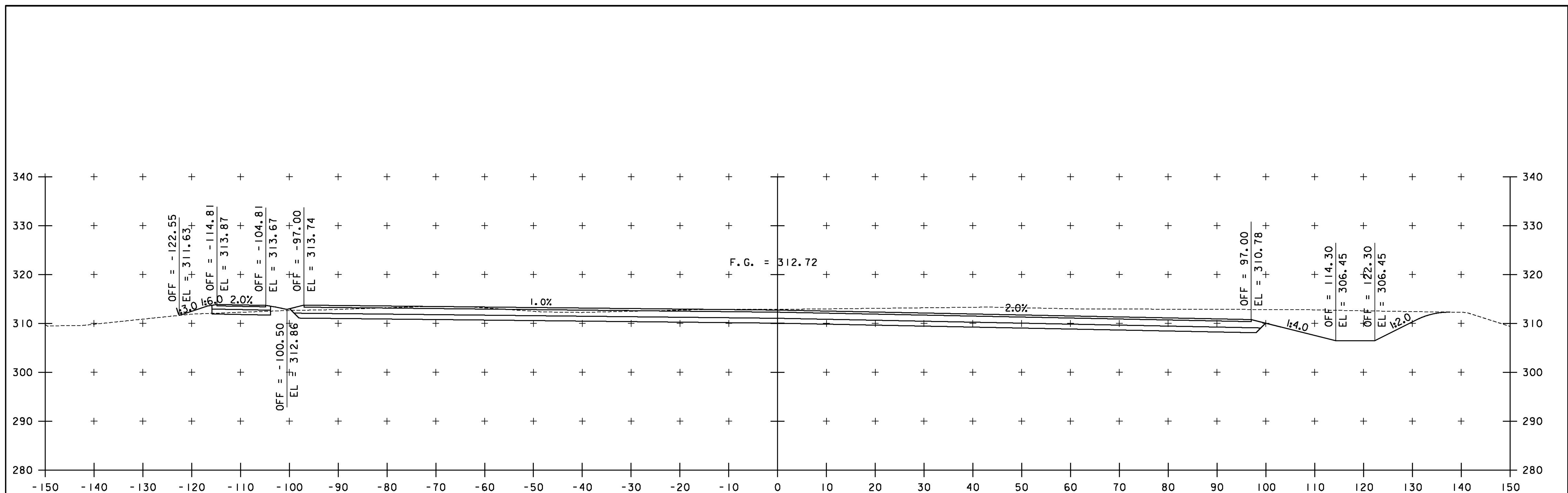


101+50 = 202+36.64, 109.72' RT.
LIMIT OF PARK-AND-RIDE

PARK-AND-RIDE BASELINE
STA. 101+50 TO STA. 102+00

PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	CMG PARK (32)
FILE NAME:	z09k250xs.dgn
PROJECT LEADER:	G. SANTY
DESIGNED BY:	I. MAYNARD
CROSS SECTION SHEET	3
PLOT DATE:	6/25/2014
DRAWN BY:	I. MAYNARD
CHECKED BY:	M. FOISY
SHEET	33 OF 43





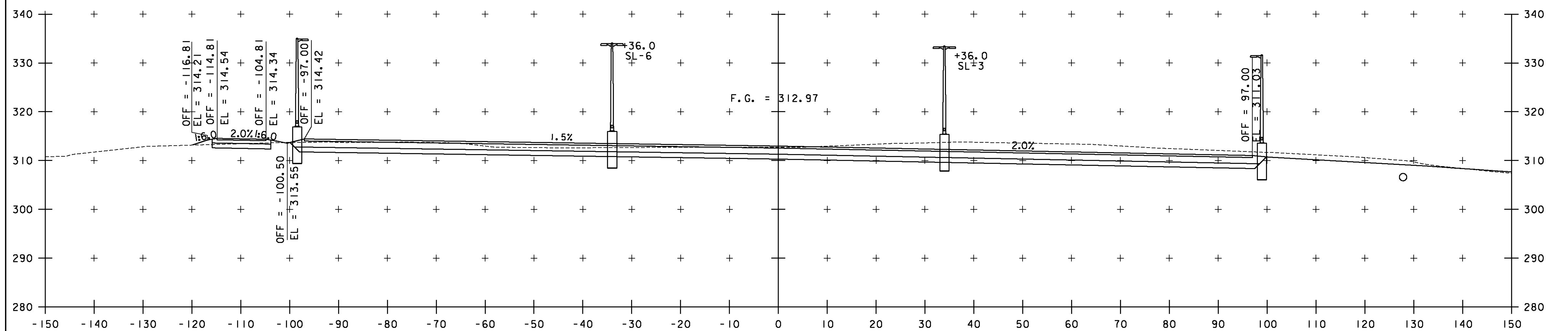
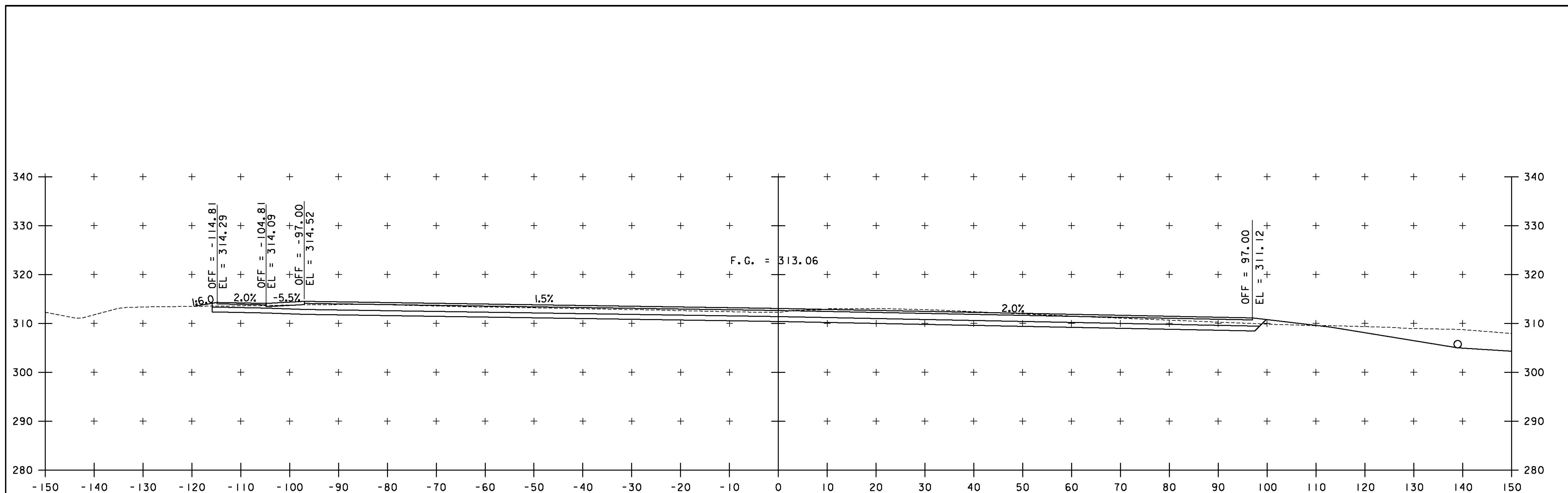
PARK-AND-RIDE BASELINE
STA. 102+50 TO STA. 103+00

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09k250xs.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
CROSS SECTION SHEET 4

PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 34 OF 43





PARK-AND-RIDE BASELINE
STA. 103+50 TO STA. 103+69

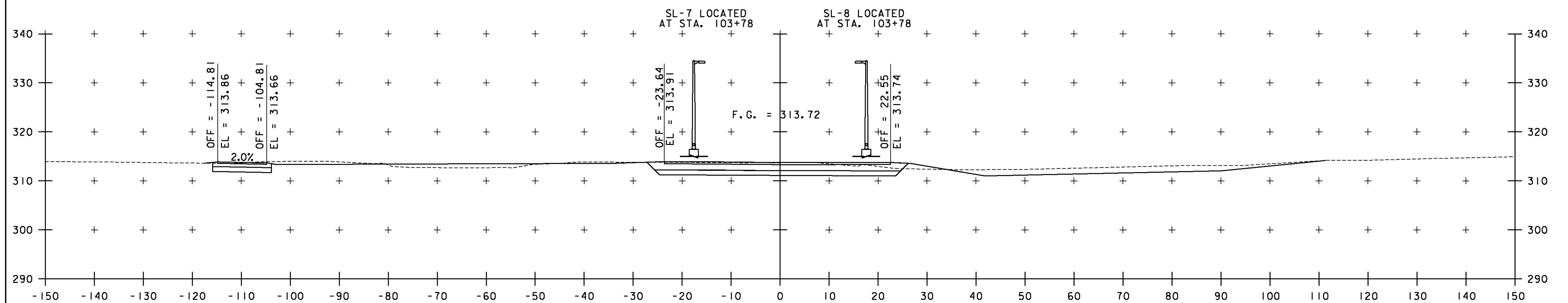
PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09k250xs.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
CROSS SECTION SHEET 5

PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 35 OF 43



104+10.86 LIMIT OF PARK-AND-RIDE



104+00 = 204+85.75, 109.81 RT.

PARK-AND-RIDE BASELINE
STA. 104+00 TO STA. 104+00

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09k250xs.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: I. MAYNARD
CROSS SECTION SHEET 6

PLOT DATE: 6/25/2014
DRAWN BY: I. MAYNARD
CHECKED BY: M. FOISY
SHEET 36 OF 43



EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT IS LOCATED ON US ROUTE 5 IN THE TOWN OF SPRINGFIELD, AT THE INTERSECTION OF US ROUTE 5 AND VT ROUTE 11. WORK TO BE PERFORMED ON THIS PROJECT INCLUDES THE RECONSTRUCTION OF THE EXISTING PARK AND RIDE FACILITY INTO A NEW PARK-AND-RIDE LOT, RELOCATION OF EXISTING SHARED USE PATH, SUBBASE, PAVEMENT, PAVEMENT MARKINGS, LIGHTING, LANDSCAPING, BUS SHELTER AND MISCELLANEOUS APPURTENANCES.

NOTE: AREA OF DISTURBANCE SHALL INCLUDE LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, INCLUDING ANY WASTE, STAGING AND BORROW AREAS WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 2.36 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

US ROUTE 5 BORDERS THE PROJECT TO THE EASTAND RANGES IN GRADE FROM 0.5% TO 2.0%. VT ROUTE 11 BORDERS THE PROJECT TO THE NORTH AND RANGES IN GRADE FROM 0.5% TO 2.0%. IMMEDIATELY TO THE SOUTH OF THE PROJECT IS THE BLACK RIVER. THERE ARE EXISTING AERIAL ELECTRIC AND TELEPHONE LINES ON THE SITE.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THE SITE SLOPES AWAY FROM US ROUTE 11 AT GRADES RANGING FROM 2-30%. VEGETATION CONSISTS OF GRASS AND SCRUB BRUSH. THE SITE RECEIVES MINIMAL RUNOFF FROM OFFSITE AREAS. STORM WATER RUNOFF FROM THE PROJECT WILL FLOW IN A SOUTHERLY DIRECTION THROUGH OPEN SWALE, THROUGH A CULVERT AND ACROSS A NATURALLY VEGETATED AREA BEFORE ENTERING THE BLACK RIVER. AN EXISTING CATCH BASIN AT THE NORTH END OF THE SITE DRAINS UNDER ROUTE 5 AND DISCHARGES TO THE BLACK RIVER. THE CATCH BASIN DRAINS MOSTLY OFF-SITE FLOW, BUT MAY RECEIVE RUNOFF FROM THE WORKZONE.

THE BLACK RIVER IS LOCATED ON THE SOUTH END OF THE SITE, FLOWS WEST TO EAST AND SERVES AS A TRIBUTARY TO THE CONNECTICUT RIVER. THE CONNECTICUT RIVER IS LOCATED APPROXIMATELY HALF A MILE SOUTHEAST OF THE SITE.

THERE IS A WETLAND MITIGATION SITE ON THE WEST SIDE OF ROUTE 5 SOUTH OF THE PROJECT ON THE FORMER ROADBED OF ROUTE 5. THIS PROJECT WILL NOT IMPACT THE MITIGATION SITE.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS MAINLY OF BRUSH AND GRASS, WITH SOME FORESTED AREAS TO THE SOUTH AND WEST OF THE SITE.

DISTURBED VEGETATION OUTSIDE OF THE PROPOSED PAVED PARKING AND SIDEWALK AREAS WILL BE REESTABLISHED WITH LANDSCAPING AND STANDARD SEED AND MULCH/EROSION MATTING PRACTICES.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF WINDSOR, VERMONT. SOILS ON THE PROJECT SITE ARE AS FOLLOWS:

PODUNK FINE SANDY LOAM, “K FACTOR” = 0.24. THE SOIL IS CONSIDERED TO HAVE MODERATE EROSION POTENTIAL.

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING: 0.0-0.23 = LOW EROSION POTENTIAL; 0.24-0.36 = MODERATE EROSION POTENTIAL; 0.37 AND HIGHER = HIGH EROSION POTENTIAL.

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: BLACK RIVER
WETLANDS: MITIGATION SITE

1.3 RISK EVALUATION

THIS PROJECT FALLS UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES FOR LOW RISK PROJECTS. ANY MODIFICATIONS TO THE PROJECT THAT INCREASE THE RISK TO ENVIRONMENTAL RESOURCES SHALL BE EVALUATED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES. BECAUSE THIS PROJECT FALLS UNDER THE CGP 3-9020, BARRIER FENCE SHALL BE USED INSTEAD OF PROJECT DEMARCATION FENCE WITHIN 100 FEET OF A WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC). BARRIER FENCE IS TO BE USED WITHIN 100’ OF THE BLACK RIVER.

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE. BARRIER FENCE WILL BE CONSTRUCTED TIGHT TO THE SLOPE LIMIT ALONG THE TOP OF THE SLOPE ABOVE THE BLACK RIVER.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR’S PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN. STONE AND BLOCK INLET PROTECTION WILL BE INSTALLED ON ALL EXISTING AND PROPOSED DROP INLETS. PIPE INLET PROTECTION WILL BE INSTALLED FOR THE THREE CULVERTS ON THE PROJECT.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

THE PROJECT IS ADJACENT TO VT ROUTE 11 AND US ROUTE 5, THEREFORE, IT IS NOT ANTICIPATED THAT DIVERSION MEASURES WILL BE NECESSARY.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

STONE CHECK DAMS WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN, AT A MINIMUM.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

SPECIFIC PERMANENT CONTROL MEASURES OF THE PROJECT INCLUDE STONE OUTLET PADS FOR PIPE OUTLETS, AND RE-VEGETATION.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9020 AUTHORIZATION.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

IT IS ANTICIPATED THAT THIS PROJECT WILL EXTEND INTO THE WINTER CONSTRUCTION SEASON.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

1.4.11 DE-WATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

DE-WATERING ACTIVITIES ARE NOT ANTICIPATED AS PART OF THIS PROJECT. IN THE EVENT DE-WATERING IS NECESSARY, THE CONTRACTOR SHALL DO SO AT NO ADDITIONAL COST TO THE PROJECT.

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STIPULATIONS.

1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

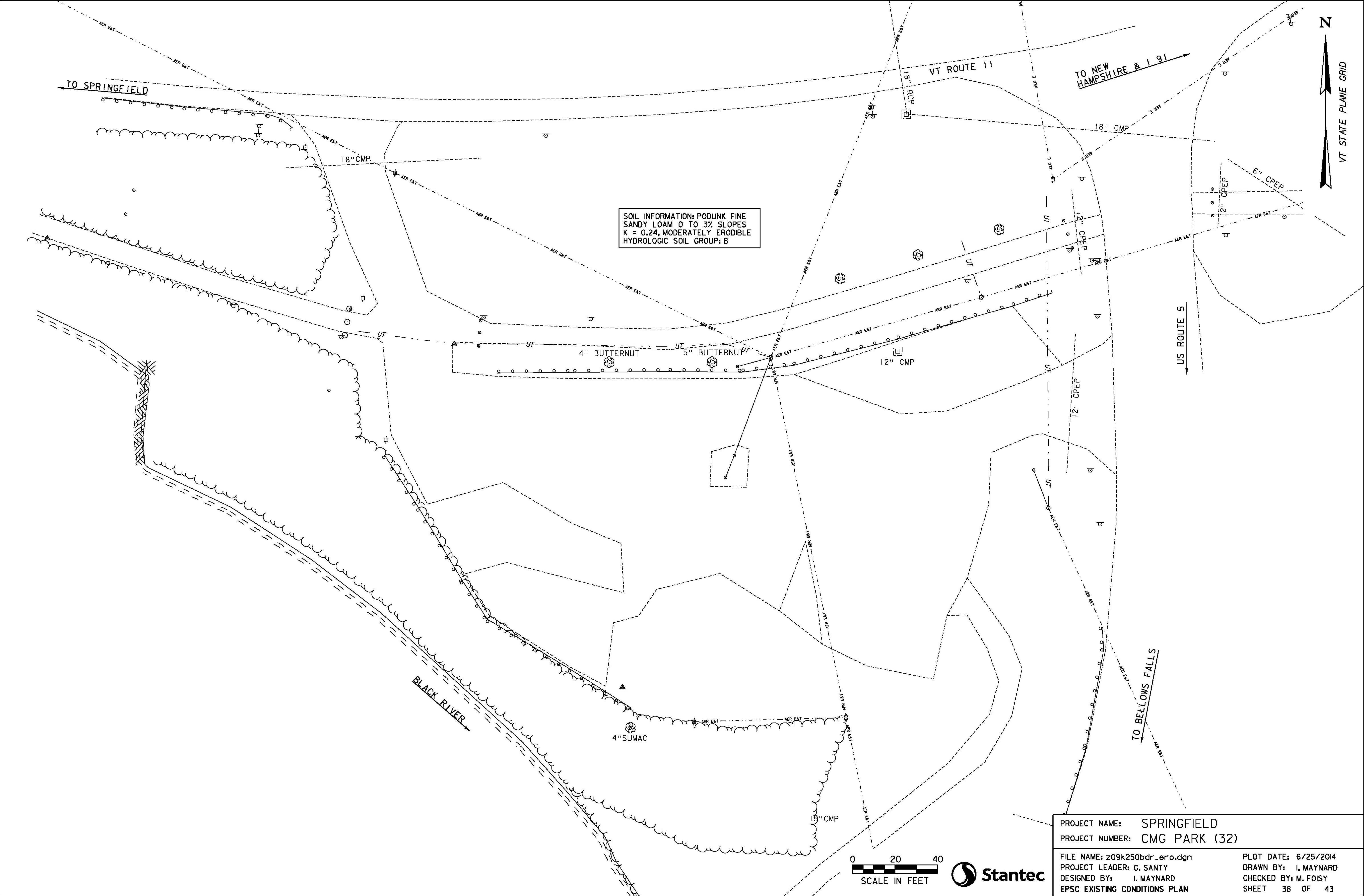
THE CONSTRUCTION OF THE SHARED USE PATH SHALL OCCUR PRIOR TO THE CONSTRUCTION OF THE PARK-AND-RIDE. SHARED USE PATH TO REMAIN OPEN AT ALL TIMES.

1.5.1 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SUBSECTIONS 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.



PROJECT NAME: SPRINGFIELD	
PROJECT NUMBER: CMG PARK (32)	
FILE NAME: z09K250frm.dgn	PLOT DATE: 6/25/2014
PROJECT LEADER: G. SANTY	DRAWN BY: I. MAYNARD
DESIGNED BY: I. MAYNARD	CHECKED BY: M. FOISY
EPSC NARRATIVE	SHEET 37 OF 43



GEOTEXTILE FOR SILT FENCE
STA. 103+63, 184' RT. - STA. 103+77, 143' RT.
STA. 103+81, 145' RT. - STA. 103+88, 103' RT.
STA. 202+10, 19' LT. - STA. 202+92, 22' LT.
STA. 202+92, 17' LT. - STA. 203+35, 21' LT.
STA. 203+34, 15' LT. - STA. 203+76, 19' LT.

BARRIER FENCE

STA. 100+56, LT. - STA. 103+03, RT.
STA. 200+27, LT. - STA. 201+33, LT.
STA. 200+30, RT. - STA. 201+31, RT.
STA. 101+15, LT. - STA. 103+85, LT / STA. 101+13, LT - STA. 103+85, LT
PROJECT DEMARCATION FENCE
STA. 103+10, RT. - STA. 103+85, RT.
STA. 201+15, LT. - STA. 201+33, LT.

BARRIER FENCE

STA. 200+50, RT. - STA. 204+50, RT. (STAGE 2)
* AFTER COMPLETION OF NEW PATH, BARRIER FENCE
WAS MOVED FROM EXISTING PATH TO NEW PATH.

TEMPORARY STONE CHECK DAM, TYPE I

STA. 101+44, LT. - STA. 103+25, RT.
STA. 103+70, RT. - STA. 103+97, RT.
STA. 204+00, LT. - STA. 204+70, LT.
STA. 204+74, RT. - STA. 204+76, RT.

VEHICLE TRACKING PAD

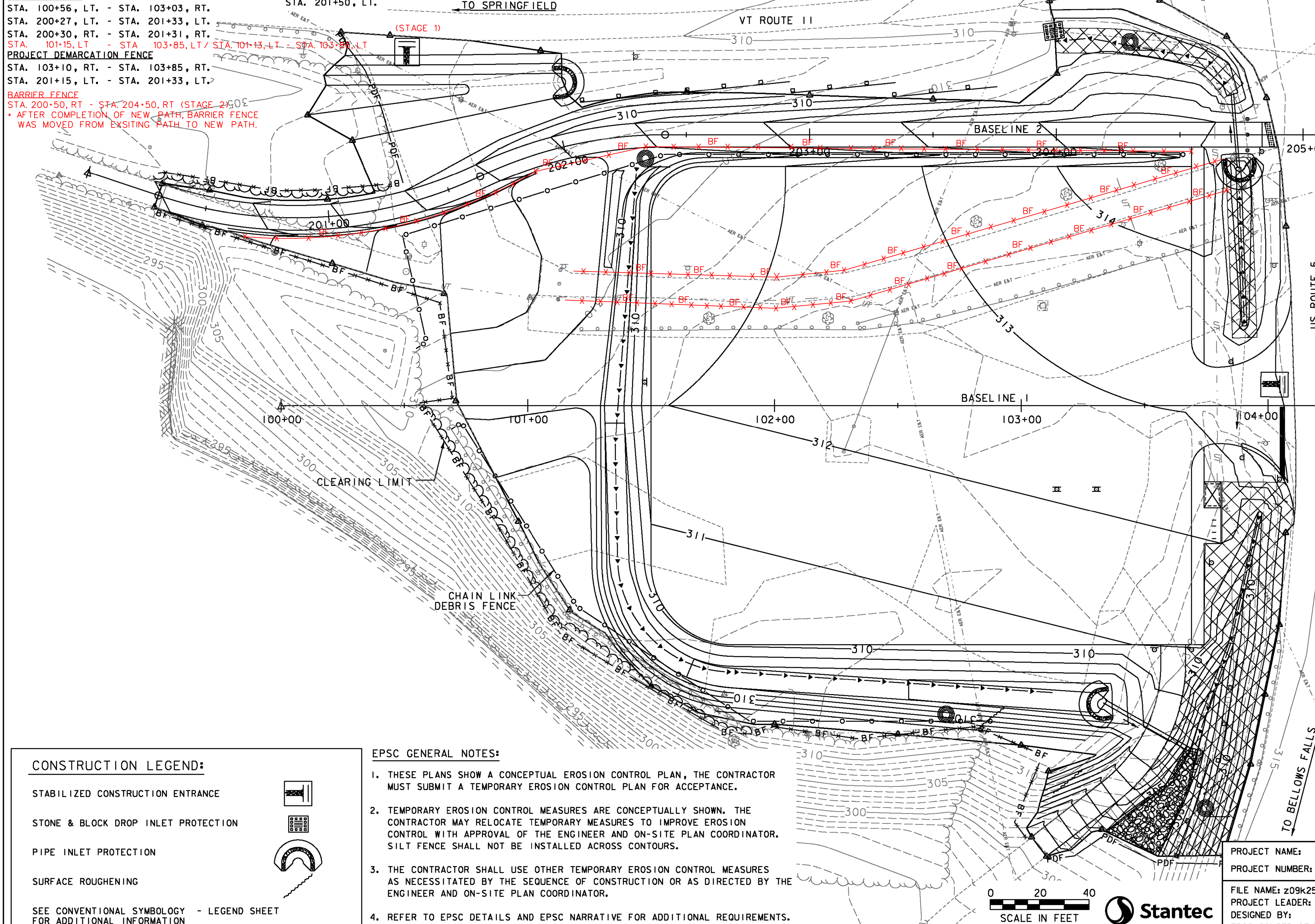
STA. 104+00, LT.
STA. 201+50, LT.

TEMPORARY EROSION MATTING

STA. 101+25, RT. - STA. 103+45, RT.
STA. 103+10, RT. - STA. 104+11, RT.
STA. 103+82, LT. - STA. 103+96, LT.
STA. 200+30, RT. - STA. 204+55, RT.
STA. 204+00, LT. - STA. 204+72, LT.

INLET PROTECTION DEVICE, TYPE I

STA. 103+34, RT. (PIPE INLET PROTECTION)
STA. 202+06, LT. (PIPE INLET PROTECTION)
STA. 203+99, LT. (STONE & BLOCK DROP INLET PROTECTION)
STA. 204+74, RT. (PIPE INLET PROTECTION)



GENERAL CONSTRUCTION SEQUENCE

1. DEMARCAT WORK ZONE WITH PROJECT DEMARCATION FENCE (PDF) OR BARRIER FENCE (BF) AS SHOWN ON THE PLANS. FENCE INSTALLED NO MORE THAN 10' BEYOND CONSTRUCTION LIMITS UNLESS APPROVED BY THE ENGINEER.
2. CLEAR AND GRUB THE SITE. DO NOT REMOVE STUMPS, EXCESS SOILS, AND OTHER WASTE MATERIALS UNTIL TEMPORARY EPSC MEASURES HAVE BEEN INSTALLED.
3. INSTALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES, AS SHOWN, AS REQUIRED, OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR, IN THE FOLLOWING ORDER:
 - A. STABILIZED CONSTRUCTION ENTRANCE (SCE) VEHICLES ARE REQUIRED TO DRIVE OVER THE 50' SCE BEFORE EXITING THE CONSTRUCTION LIMITS.
 - B. INLET PROTECTION ON EXISTING DROP INLETS AND CATCH BASINS.
 - C. STONE CHECK DAMS (SEE EPSC DETAILS).
 - D. SILT FENCE AND EROSION MATTING (SEE EPSC DETAILS).
4. DISPOSE OF STUMPS, EXCESS SOILS AND OTHER WASTE MATERIAL IN ACCORDANCE WITH SUBSECTION 105.25.
5. COMPLETE CONSTRUCTION OF NEW PARK-AND-RIDE LOT.
 - A. INSPECT AND MAINTAIN EROSION PREVENTION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
 - B. DISPOSE OF COLLECTED SEDIMENT AND OTHER POLLUTANTS IN A MANNER APPROVED BY THE ENGINEER THAT WILL NOT RESULT IN SEDIMENTS AND POLLUTANTS ENTERING WATERS OF THE STATE.
6. PERMANENTLY STABILIZE ALL FINISHED GRADES AS EARTHWORK IS COMPLETED.
7. ALL CONSTRUCTION SEQUENCING AND EPSC MEASURES WILL BE SUBJECT TO PERMIT CONDITIONS.

CONSTRUCTION LEGEND:

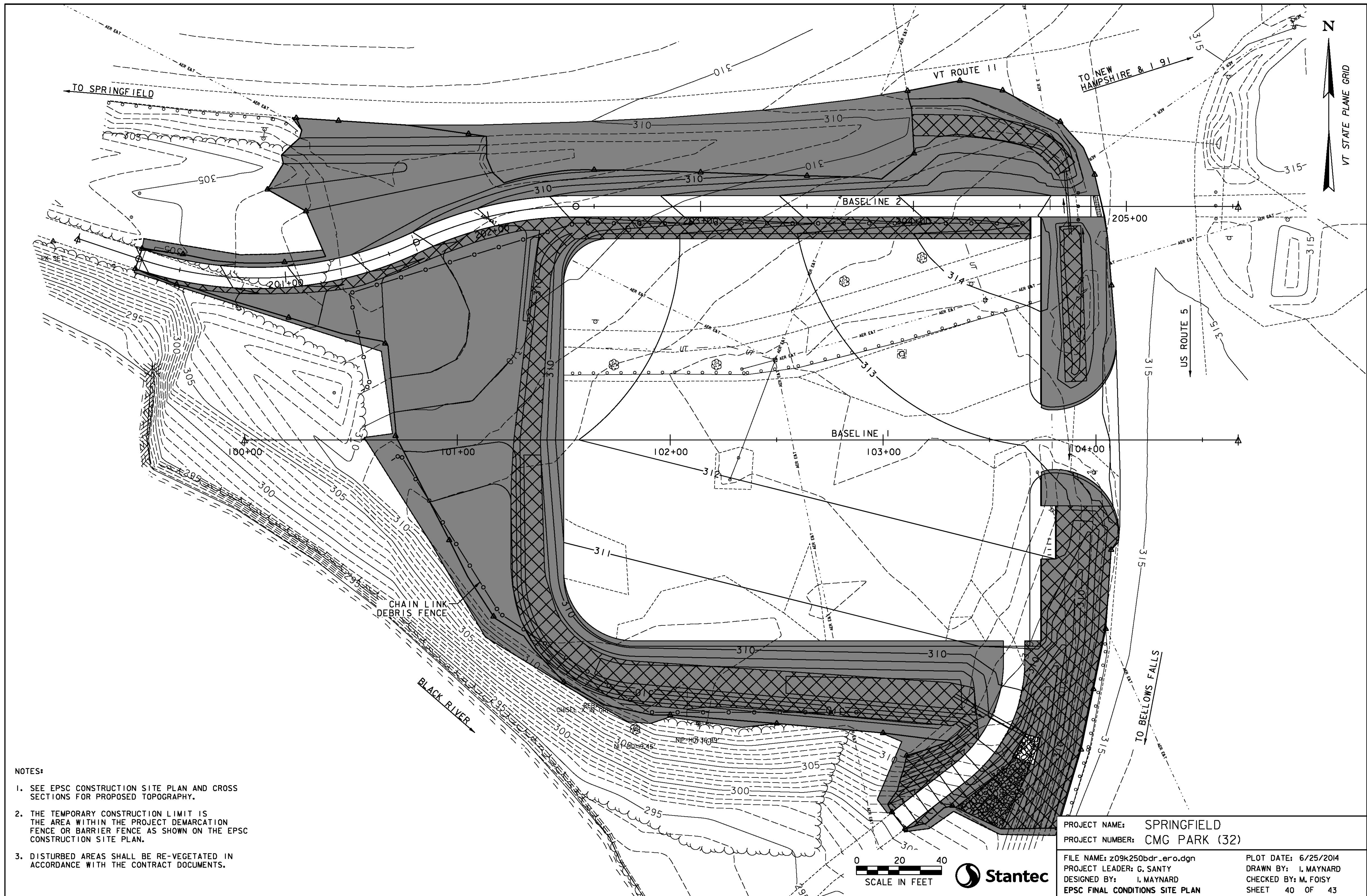
STABILIZED CONSTRUCTION ENTRANCE	
STONE & BLOCK DROP INLET PROTECTION	
PIPE INLET PROTECTION	
SURFACE ROUGHENING	

SEE CONVENTIONAL SYMBOLOGY - LEGEND SHEET FOR ADDITIONAL INFORMATION

- EPSC GENERAL NOTES:**
1. THESE PLANS SHOW A CONCEPTUAL EROSION CONTROL PLAN, THE CONTRACTOR MUST SUBMIT A TEMPORARY EROSION CONTROL PLAN FOR ACCEPTANCE.
 2. TEMPORARY EROSION CONTROL MEASURES ARE CONCEPTUALLY SHOWN. THE CONTRACTOR MAY RELOCATE TEMPORARY MEASURES TO IMPROVE EROSION CONTROL WITH APPROVAL OF THE ENGINEER AND ON-SITE PLAN COORDINATOR. SILT FENCE SHALL NOT BE INSTALLED ACROSS CONTOURS.
 3. THE CONTRACTOR SHALL USE OTHER TEMPORARY EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER AND ON-SITE PLAN COORDINATOR.
 4. REFER TO EPSC DETAILS AND EPSC NARRATIVE FOR ADDITIONAL REQUIREMENTS.

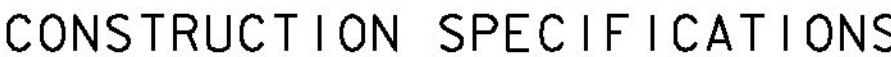
0 20 40
SCALE IN FEET

PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	CMG PARK (32)
FILE NAME:	z09k250bdr_ero.dgn
PROJECT LEADER:	G. SANTY
DESIGNED BY:	I. MAYNARD
EPSC CONSTRUCTION SITE PLAN	
PLOT DATE:	6/25/2014
DRAWN BY:	I. MAYNARD
CHECKED BY:	M. FOISY
SHEET	39 OF 43



NOTES:

1. SEE EPSC CONSTRUCTION SITE PLAN AND CROSS SECTIONS FOR PROPOSED TOPOGRAPHY.
2. THE TEMPORARY CONSTRUCTION LIMIT IS THE AREA WITHIN THE PROJECT DEMARCATION FENCE OR BARRIER FENCE AS SHOWN ON THE EPSC CONSTRUCTION SITE PLAN.
3. DISTURBED AREAS SHALL BE RE-VEGETATED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.



- ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH
SECTION 653 FOR TEMPORARY STONE CHECK DAM, TYPE I (PAY
ITEM 653.25)

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 8, 2009	WHF



- ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION
CONTROL PRODUCT
(RECP) DITCH

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20).

REVISIONS	
MARCH 8, 2007	JMF
APRIL 16, 2007	WHF
JANUARY 13, 2009	WHF



- ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STONE & BLOCK DROP INLET PROTECTION

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.

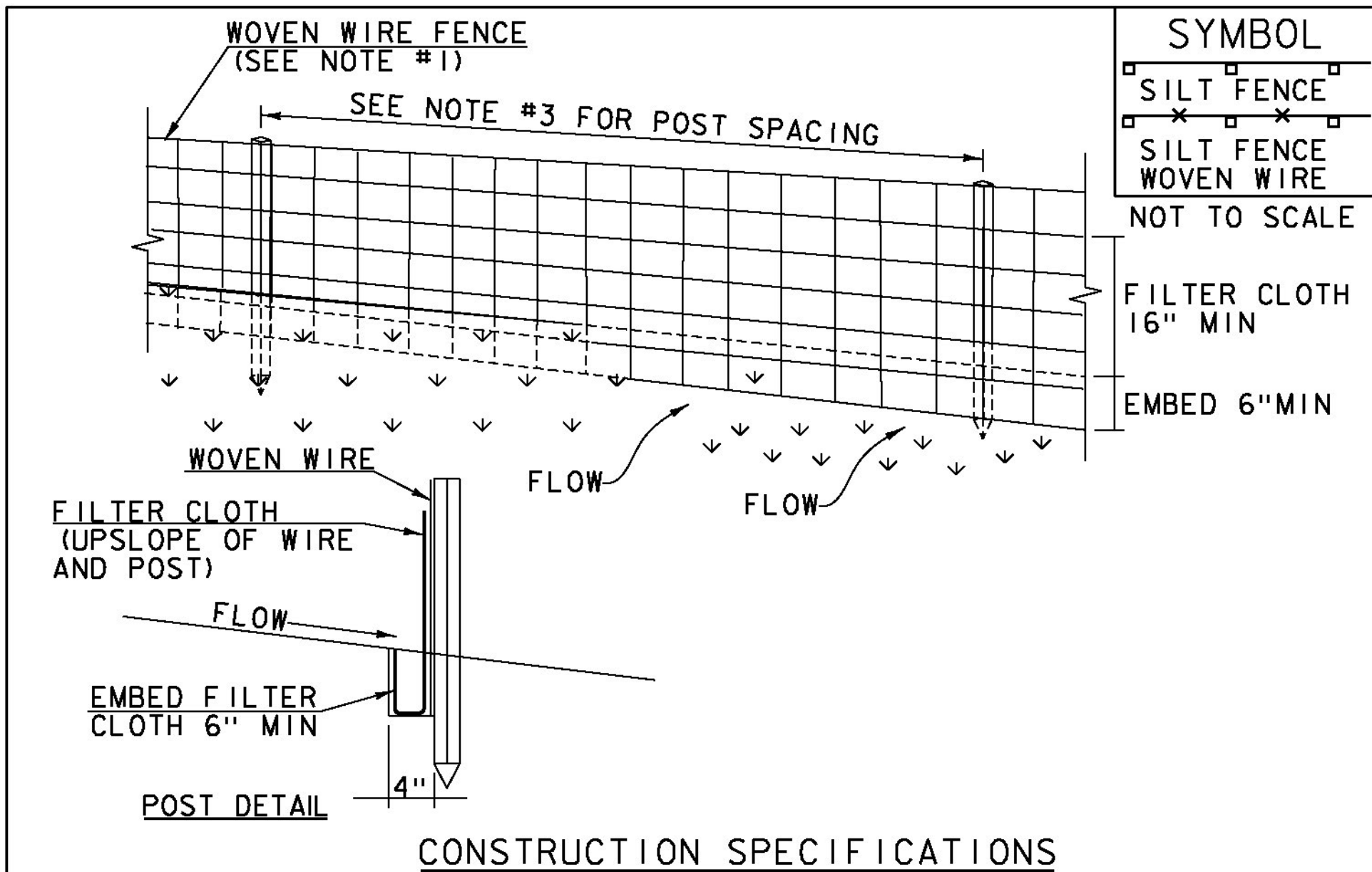
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR INLET PROTECTION DEVICE, TYPE I (PAY ITEM 653.40).

REVISIONS	
MARCH 6, 2008	WHF
JANUARY 13, 2009	WHF

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09K250frm.dgn
PROJECT LEADER: VAOT
DESIGNED BY: VAOT
EPSC DETAILS SHEET 1

PLOT DATE: 6/25/2014
DRAWN BY: VAOT
CHECKED BY: VAOT
SHEET 41 OF 43



- CONSTRUCTION SPECIFICATIONS**
- WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
 - FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF1100X, STABILINKA T140N OR APPROVED EQUIVALENT.
 - POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
 - WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

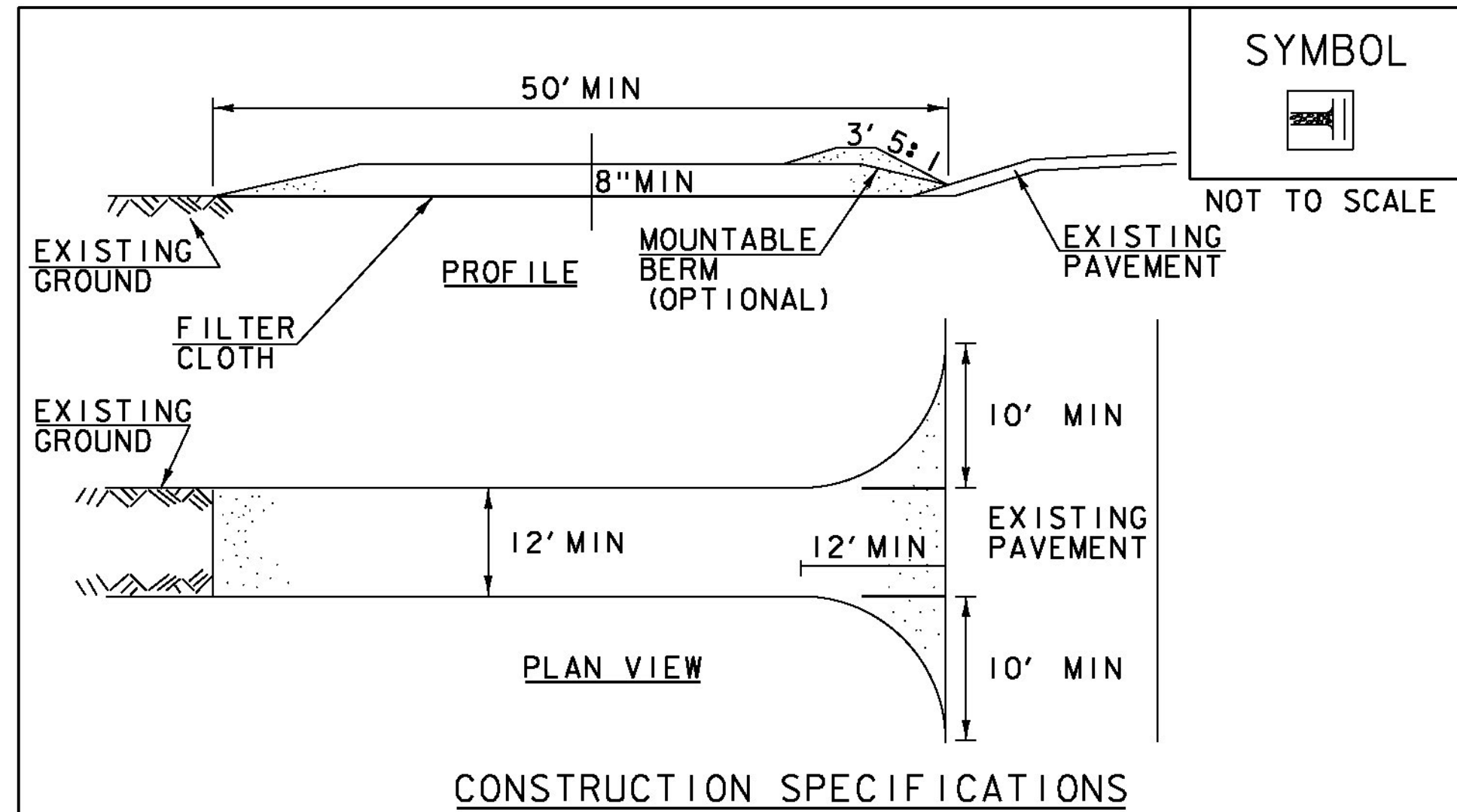
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.5)

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF



- CONSTRUCTION SPECIFICATIONS**
- STONE SIZE- USE 1-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
 - THICKNESS- NOT LESS THAN 8".
 - WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
 - GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
 - SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
 - MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
 - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 - PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

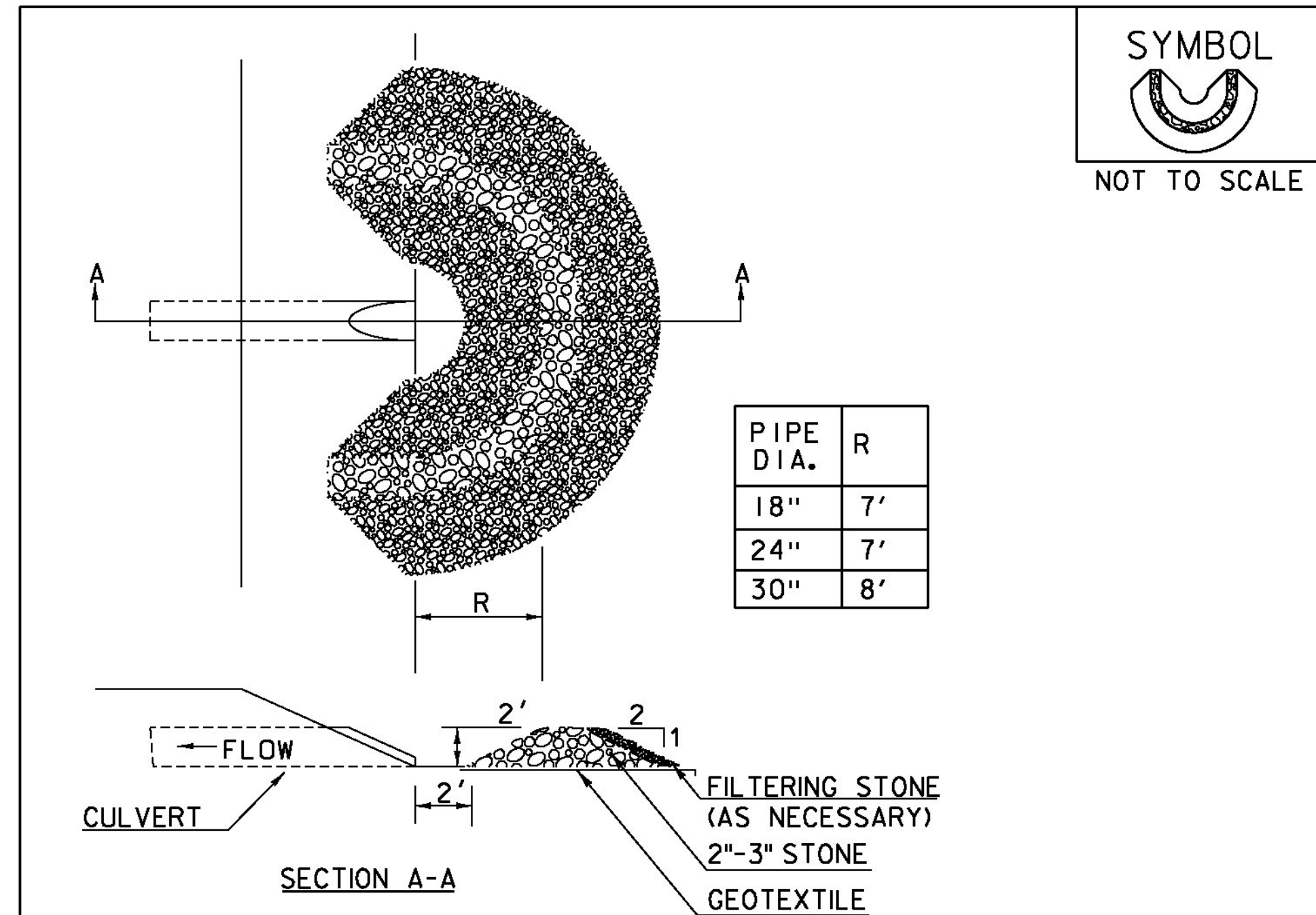
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STABILIZED CONSTRUCTION ENTRANCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF



- CONSTRUCTION SPECIFICATIONS**
- USE 2" TO 3" STONE. FILTERING STONE SHALL BE 3/4".
 - PLACE STONE OVER GEOTEXTILE.
 - ONCE THE AREAS UPSTREAM FROM THE CHECK DAM ARE STABILIZED WITH VEGETATION, THE SEDIMENT TRAPPED BEHIND THE DAM SHALL BE DISPOSED OF IN AN APPROVED WASTE AREA.
 - THE CHECK DAM(S) SHALL BE FLATTENED AND GRADED IN A MANNER WHICH PROTECTS THE AREA FROM EROSION AND CHANNEL BLOCKAGE. (GEOTEXTILE MUST BE REMOVED).
 - THE GEOTEXTILE MUST BE DISPOSED OF APPROPRIATELY.
 - THE AREA CONTRIBUTING TO THE CHECK DAM SHALL NOT EXCEED 4 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS
ORIGINALLY DEVELOPED BY USDA-NRCS

PIPE INLET PROTECTION

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

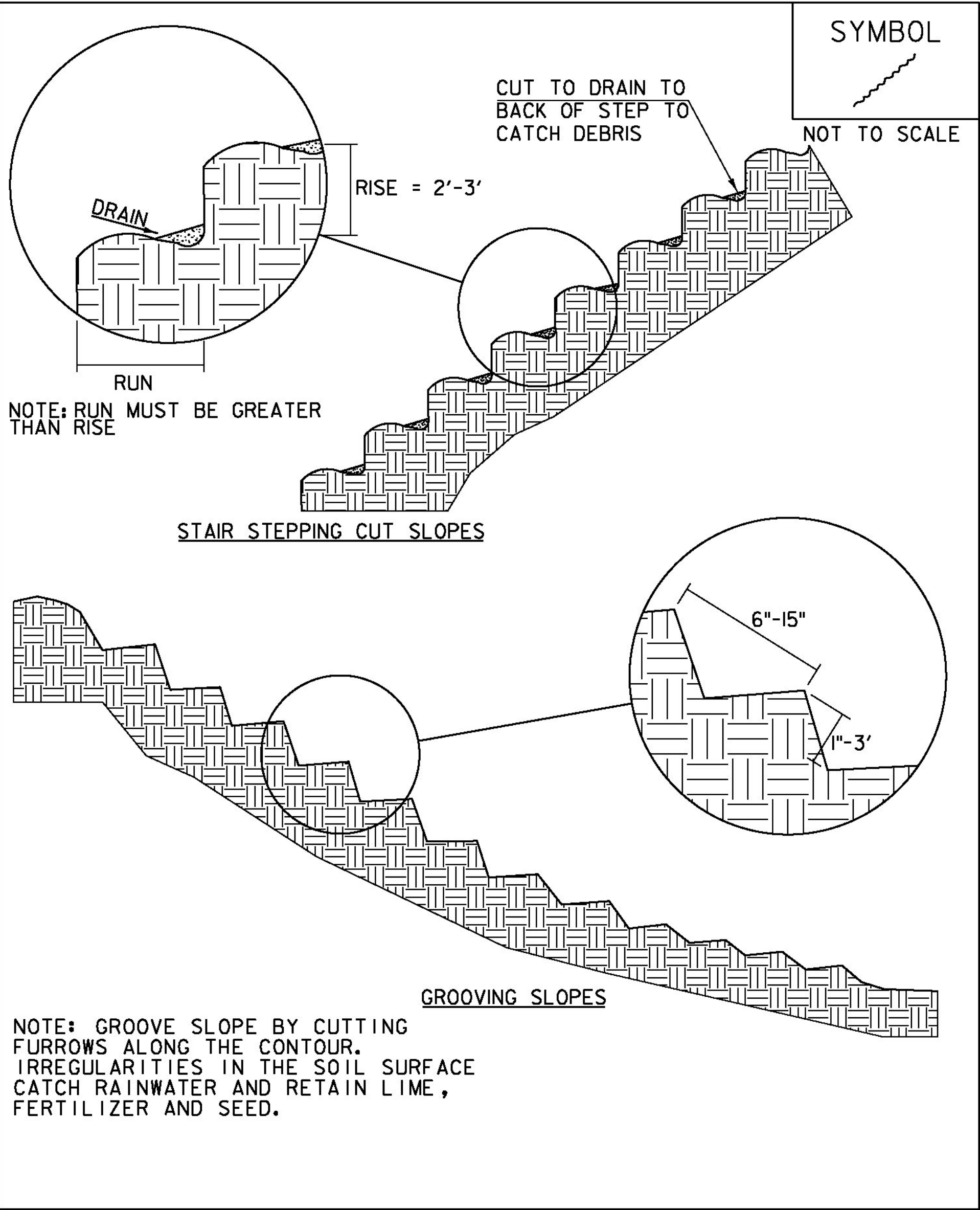
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR INLET PROTECTION DEVICE, TYPE 1 (PAY ITEM 653.40).

REVISIONS	
MARCH 6, 2008	WHF
JANUARY 13, 2009	WHF

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

FILE NAME: z09K250frm.dgn
PROJECT LEADER: VAOT
DESIGNED BY: VAOT
EPSC DETAILS SHEET 2

PLOT DATE: 6/25/2014
DRAWN BY: VAOT
CHECKED BY: VAOT
SHEET 42 OF 43



ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SURFACE ROUGHENING

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.

THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE
CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF



111 North River Road
North Aurora, IL 60542
Phone: (800) 323-5664
Fax: (630) 897-0573
sales@belson.com

Model # U190-SF-P

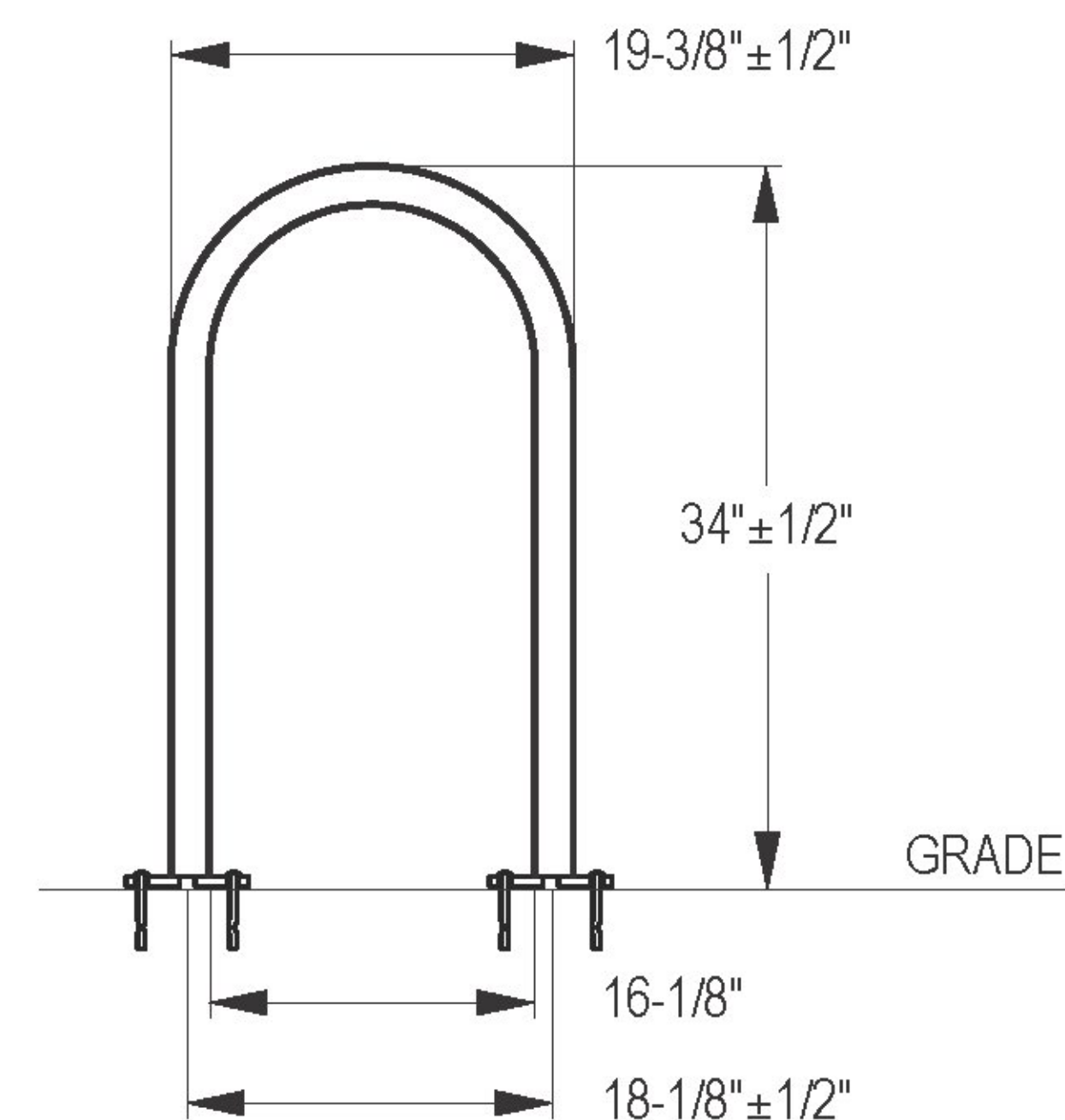
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Quantity: 4

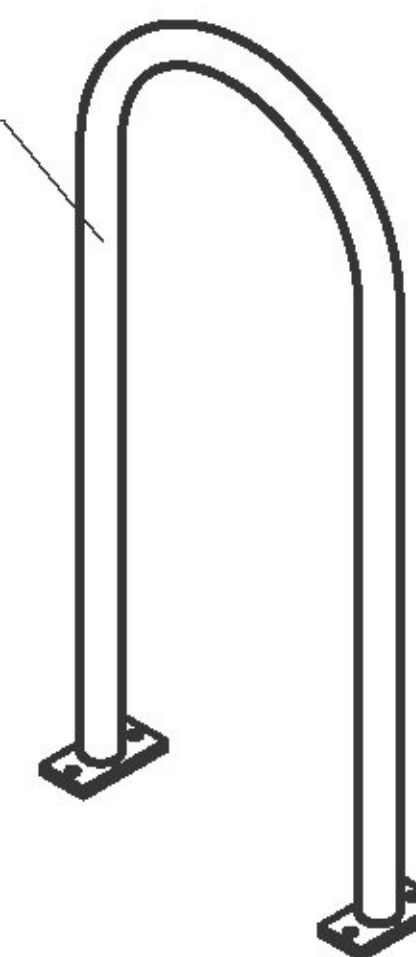
Galvanized & Powder Coated Black

U RACK | 1 LOOP 3 BIKES

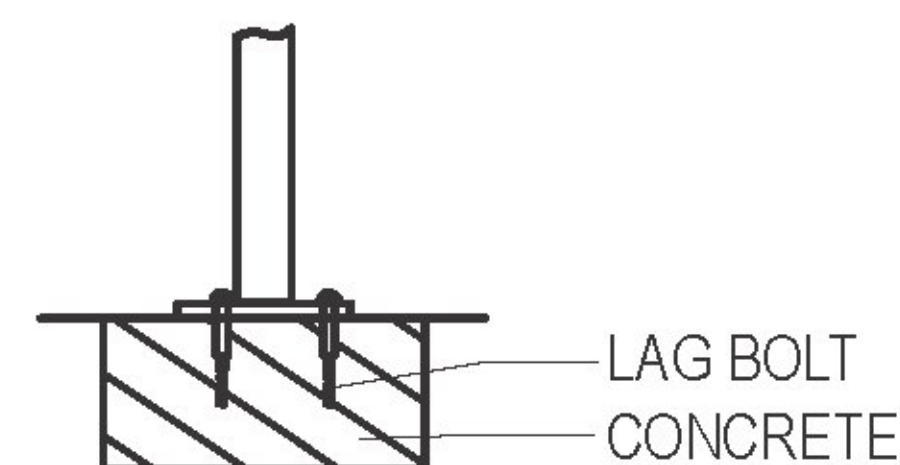
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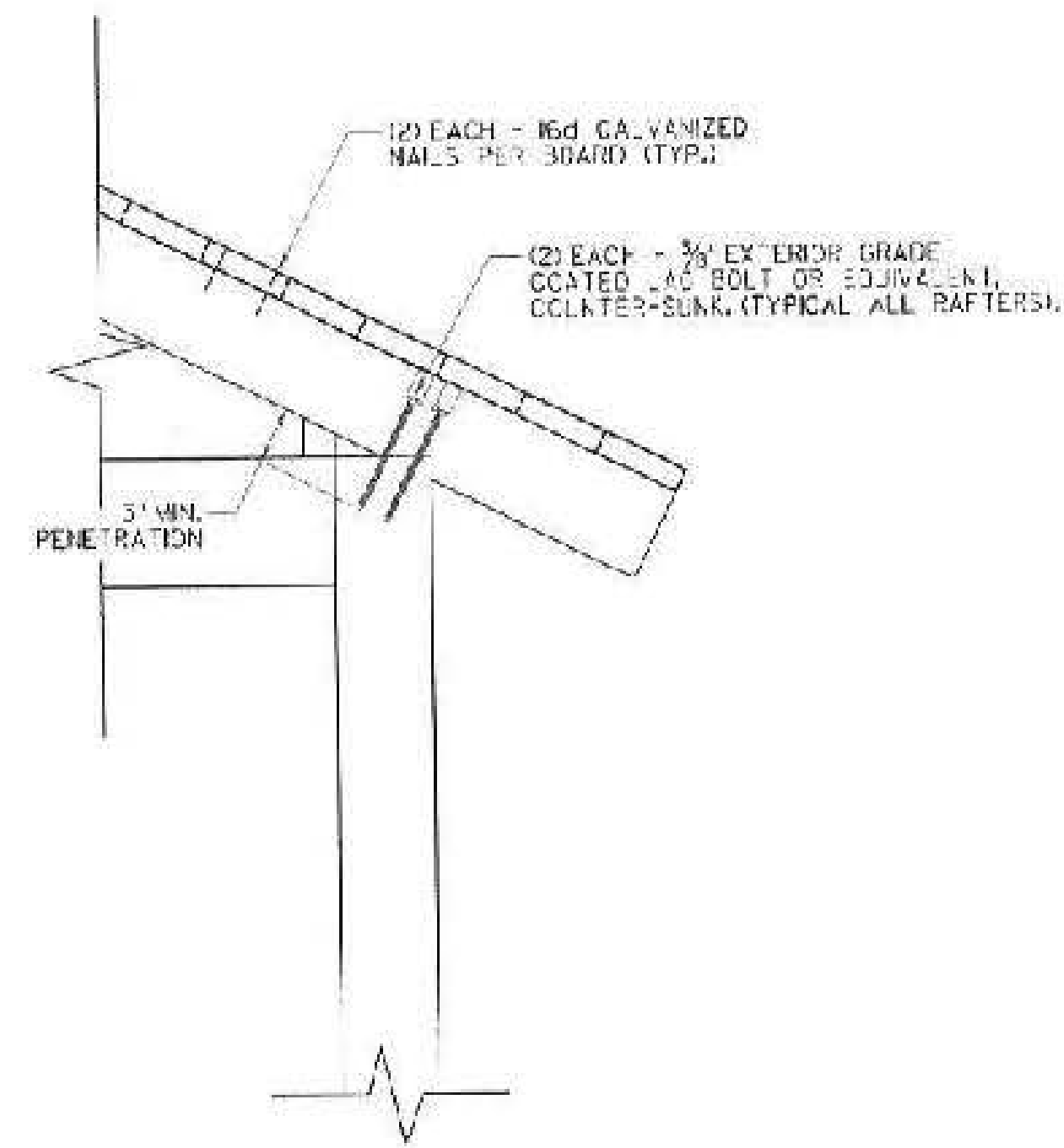


1-7/8" O.D. TUBING

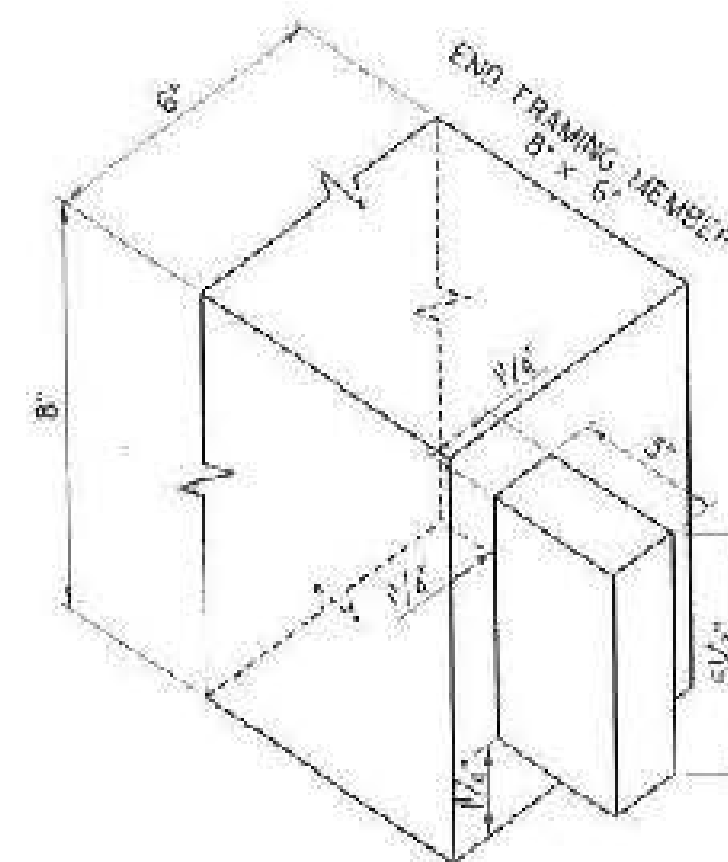


APPROVED: Approval of drawings and/or procedures indicates concurrence with the information presented and does not relieve the Contractor or Fabricator of compliance with all specifications and code requirements	X	 Stantec
APPROVED AS NOTED		
REVISE AND RESUBMIT		
NOT REVIEWED		
Date: 5-1-2015		
Signature: Marc Frisy		
This review by Stantec Consulting Services Inc. is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that Stantec Consulting Services Inc approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor. Submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawing or of his responsibility for meeting all requirements of the Contract Documents. The contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes or to techniques of construction and installation and for coordination of the work of all subtrades.		

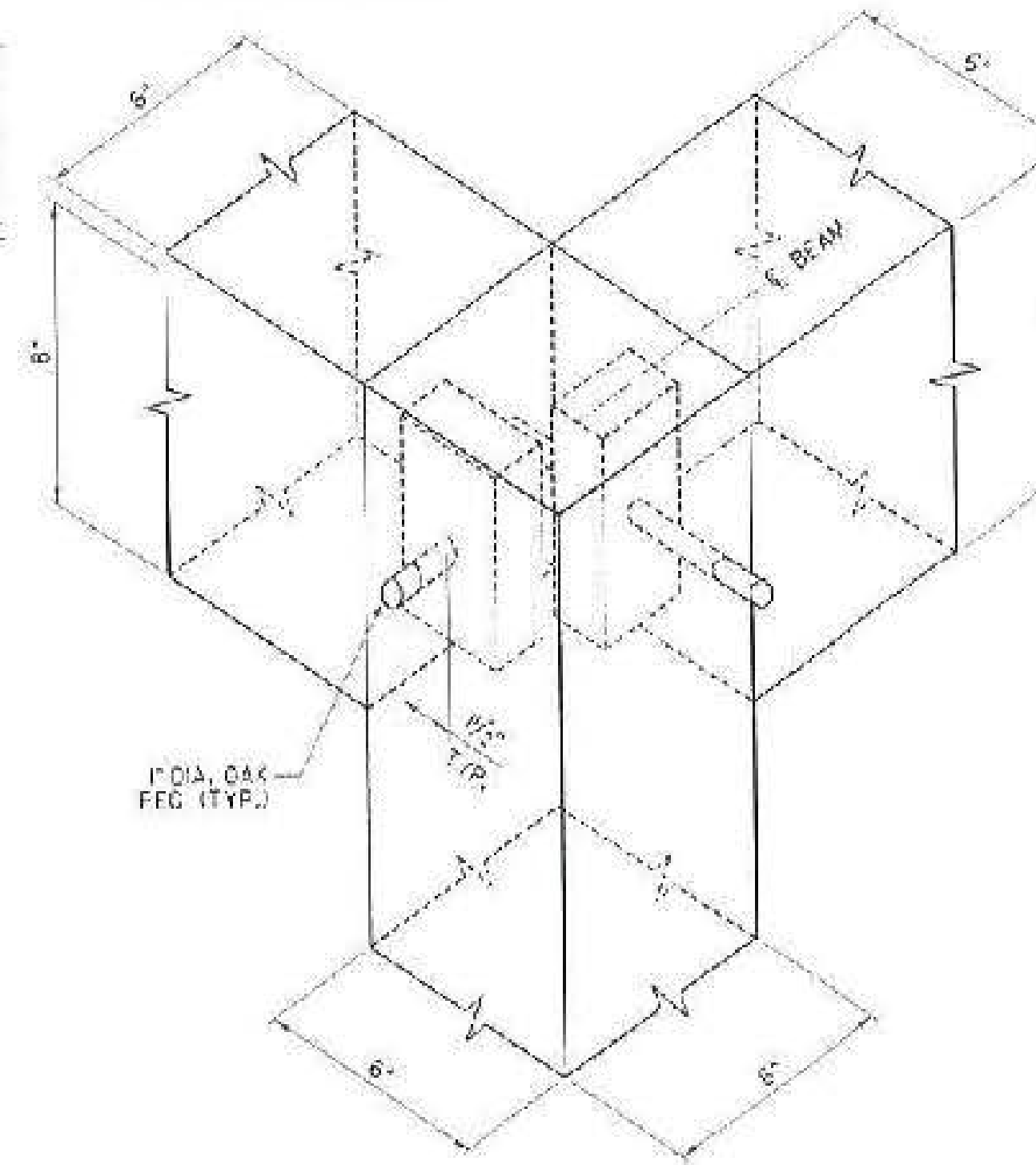




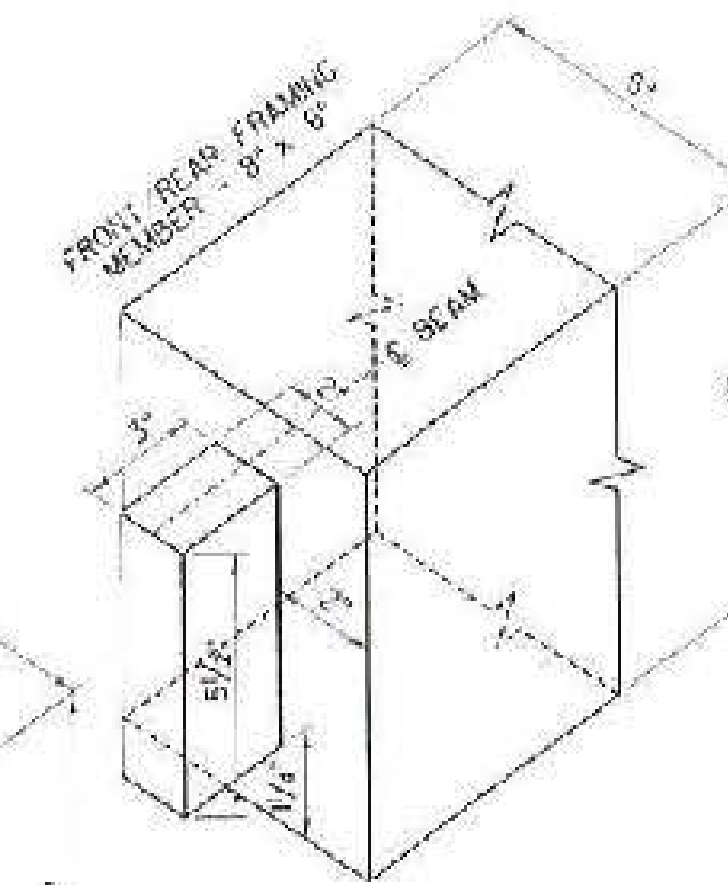
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SCALE 1 1/2" = 1'-0"



MORTISE & TENON
DETAIL



DETAIL "C"
SCALE 1 1/2" = 1'-0"

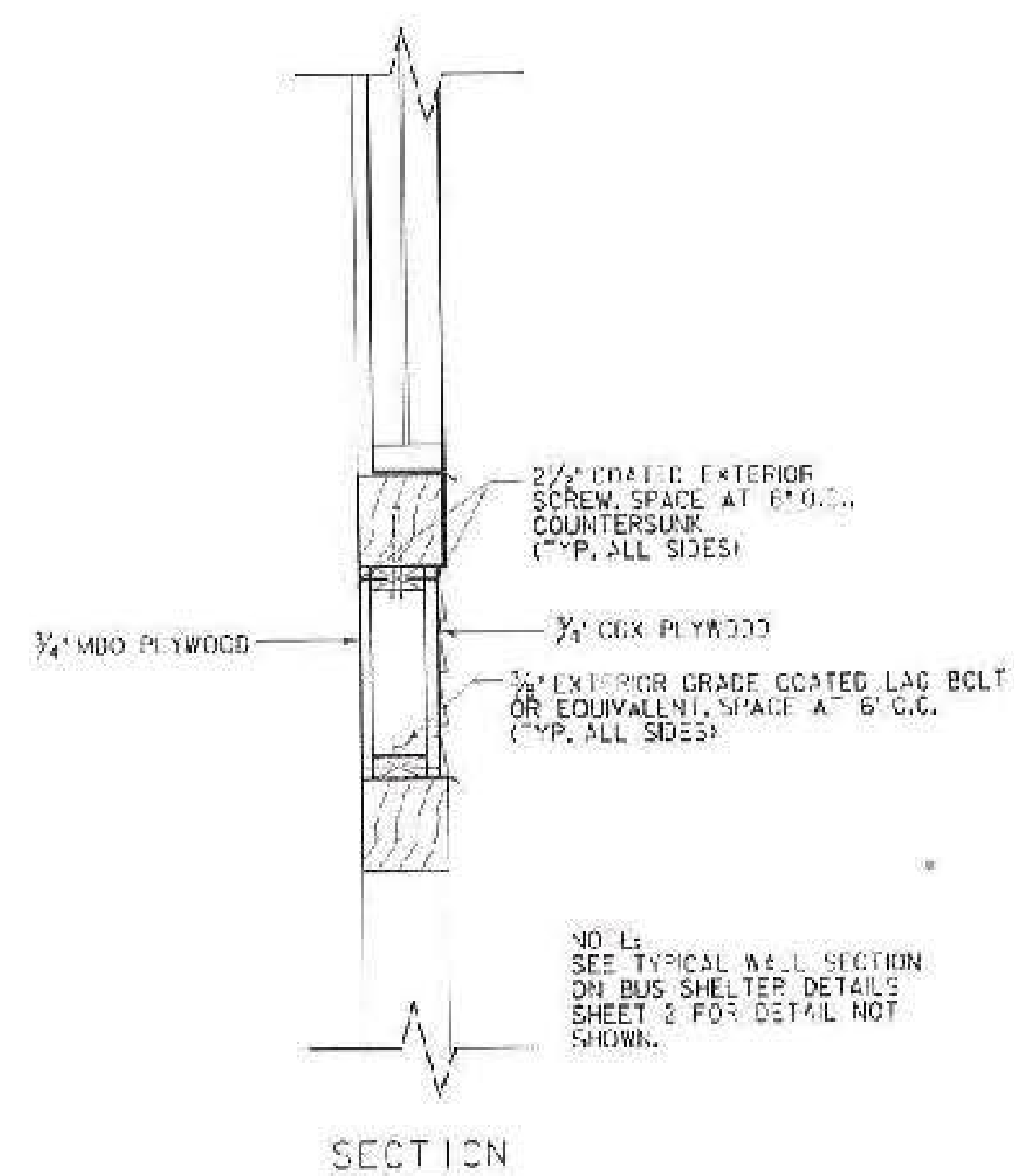
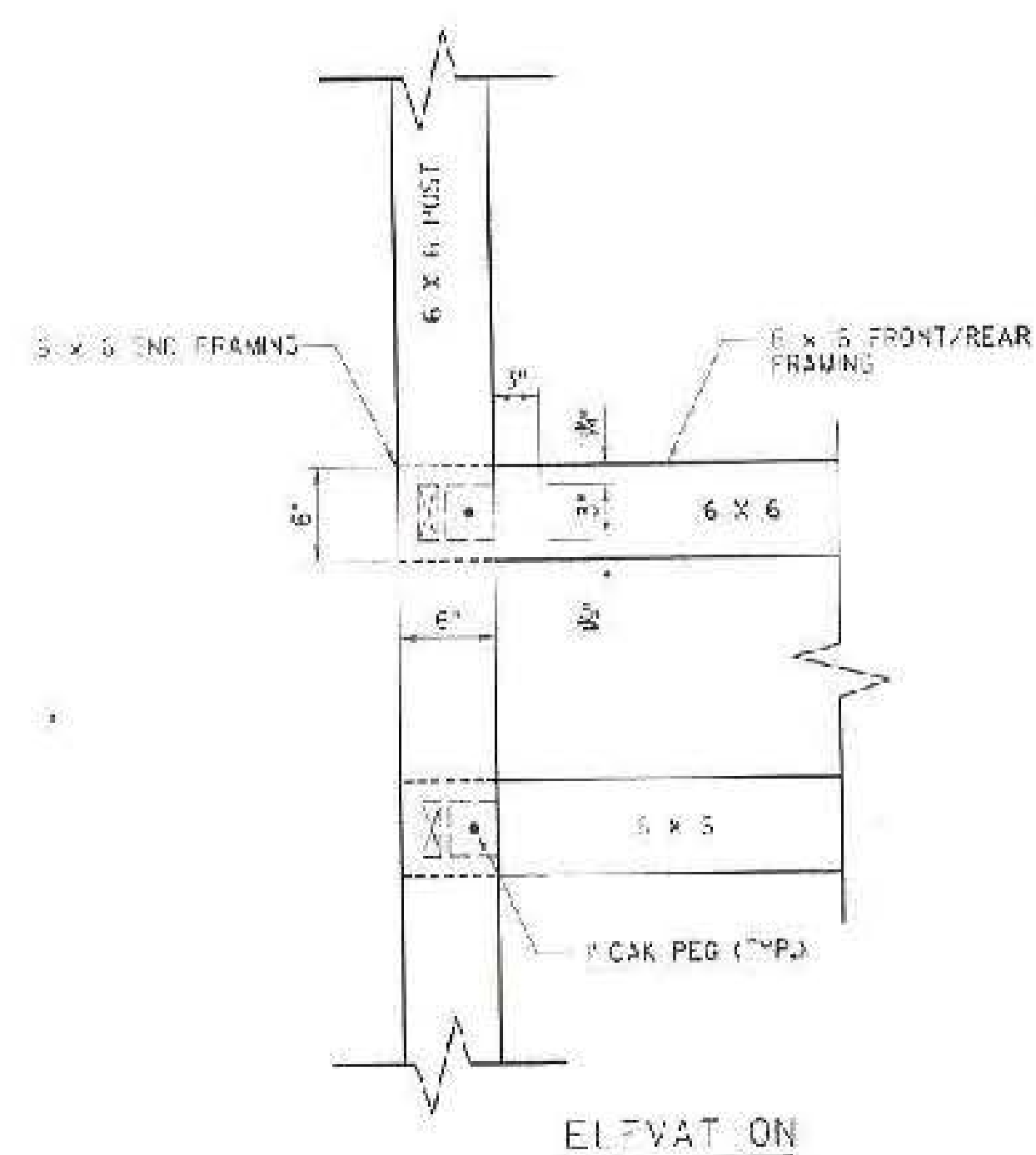
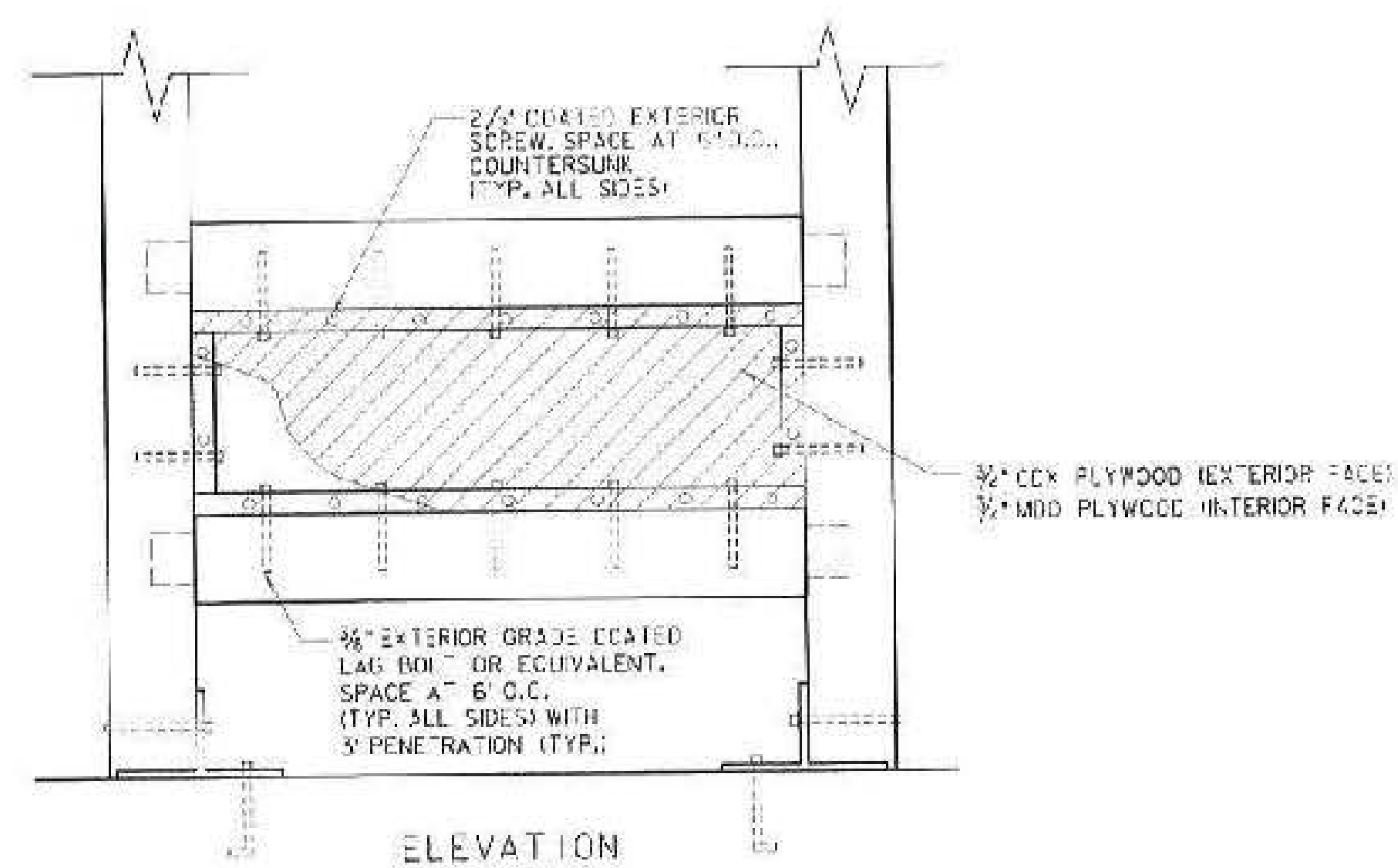


MORTISE & TENON
DETAIL

Ingram Construction Corp.
Approved for Submittal
Date 4/16/15 By SPC



PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	CMC PARK (32)
FILE NAME:	208K250.dwg
PROJECT LEADER:	U. FOISY
DESIGNED BY:	J. UNDERWOOD
BUS SHELTER DETAILS:	3
PLOT DATE:	6/27/2014
DRAWN BY:	L. SUTON
CHECKED BY:	C. BOHLE
SHEET:	21 OF 45

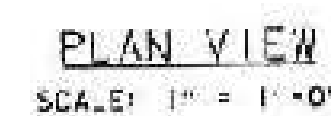


Ingram Construction Corp.
Approved for Submittal
Date 4/16/15 By SPL

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.

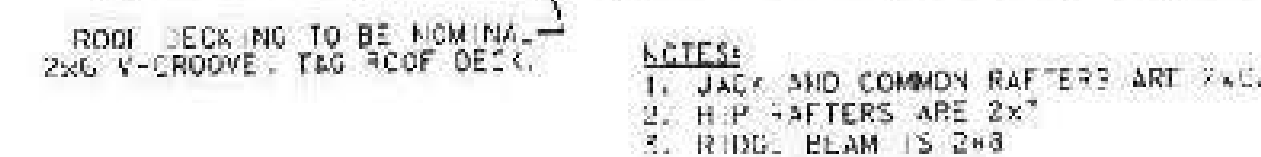
PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	CMG PARK (32)
FILE NAME:	209x250shelter.dwg
PROJECT LEADER:	M. POSEY
DESIGNED BY:	J. HUNTERFORD
BUS SHELTER DETAILS:	4
PLOT DATE:	6/25/2011
DRAWN BY:	L. BURTON
CHECKED BY:	G. BOGLE
SHEET:	25 OF 45



[illegible]

SECTION A-A
SCALE: 1" = 1'-0"

BUS SHELTER SLAB DETAIL



ROOF FRAMING
SCALE: 1" = 4'-0"

3/4" BLACK GALVANIZED ANCHOR BOLT 7" L
INCIDENTAL TO ITEM 541.25 3"

NOTE: DRILL AND EPOXY ANCHORING WILL BE PERMITTED. MINIMUM 1/2" ANCHOR ROD EMBEDMENT INTO CONCRETE SHALL BE 6" AND HAVE A MINIMUM TENSILE STRENGTH OF 3,000 LBS.

DETAIL - A
NOT TO SCALE

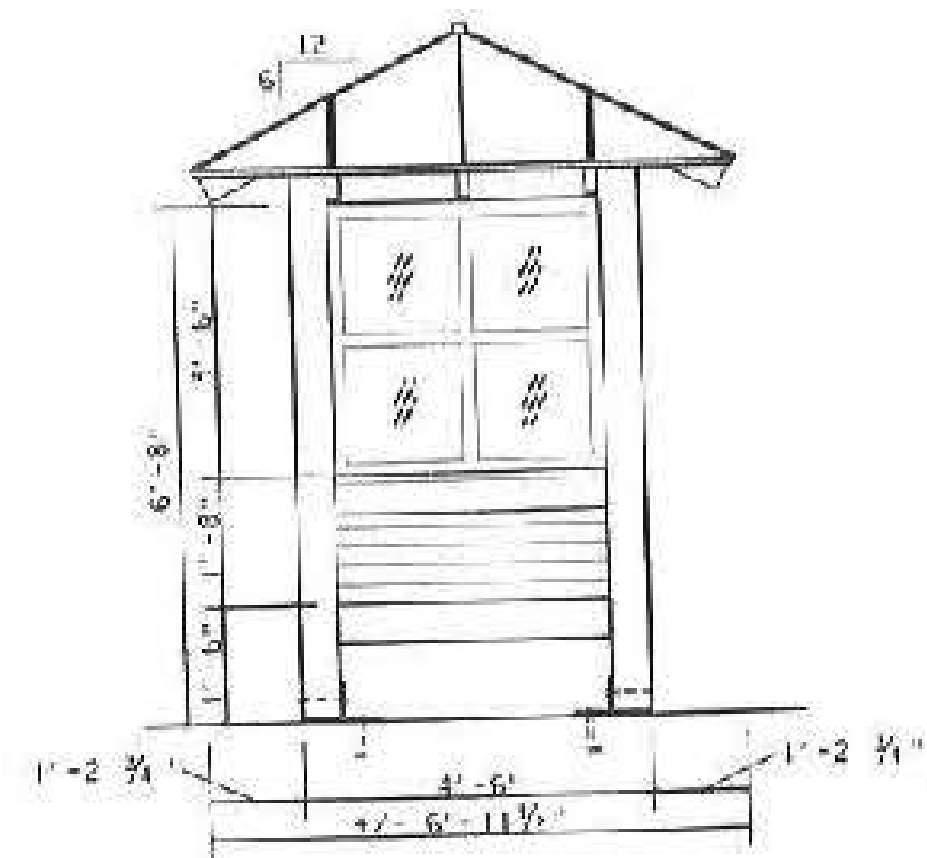
Concrete by others

1. ALL WATER ALLS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION, 2011 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, ITS LATEST REVISIONS, AND THE EASTHO LIFTED BRIDGE DESIGN SPECIFICATIONS, DATED 2010, AND ITS LATEST REVISIONS.
2. REINFORCING PLACEMENT TOLERANCES SHALL BE:
 SPACING $\pm 1"$
 CLEARANCE $\pm 1/4"$
3. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED $1/8"$ BY $1/2"$
4. WATER REPELLENT SILANE ITEM #14.10 SHALL BE APPLIED TO ALL EXPOSED CONCRETE.
5. ALL MATERIALS AND WORK DETAIL ON THIS SPEC SHALL BE INCLUDED UNDER ITEM 800.043 SPECIAL PROVISION (BJS SCHEDULE UNLESS OTHERWISE NOTED).
6. ALL WOODEN PIES SHALL BE 1" DIAMETER OAK.
7. THE STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING LOADS:
 GROUND SNOW LOAD = 100 psf
 BASIC WIND SPEED = 90 mph
 CATEGORY I
8. ALL DIMENSIONS ARE NOMINAL. MEMBERS SHALL BE SUNKER ON FOUR SIDES.
9. TIMBER FRAMING SHALL BE APPEARANCE GRADE WHITE OAK NO. 1.
 ROOF SHEATHING SHALL BE NO. 1 OR NO. 2 SPF.
 BENCH FRAMING SHALL BE APPEARANCE GRADE WHITE OAK NO. 1.
10. SEE BJS SCHEDULE SPECIAL PROVISION IN CONTRACT DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

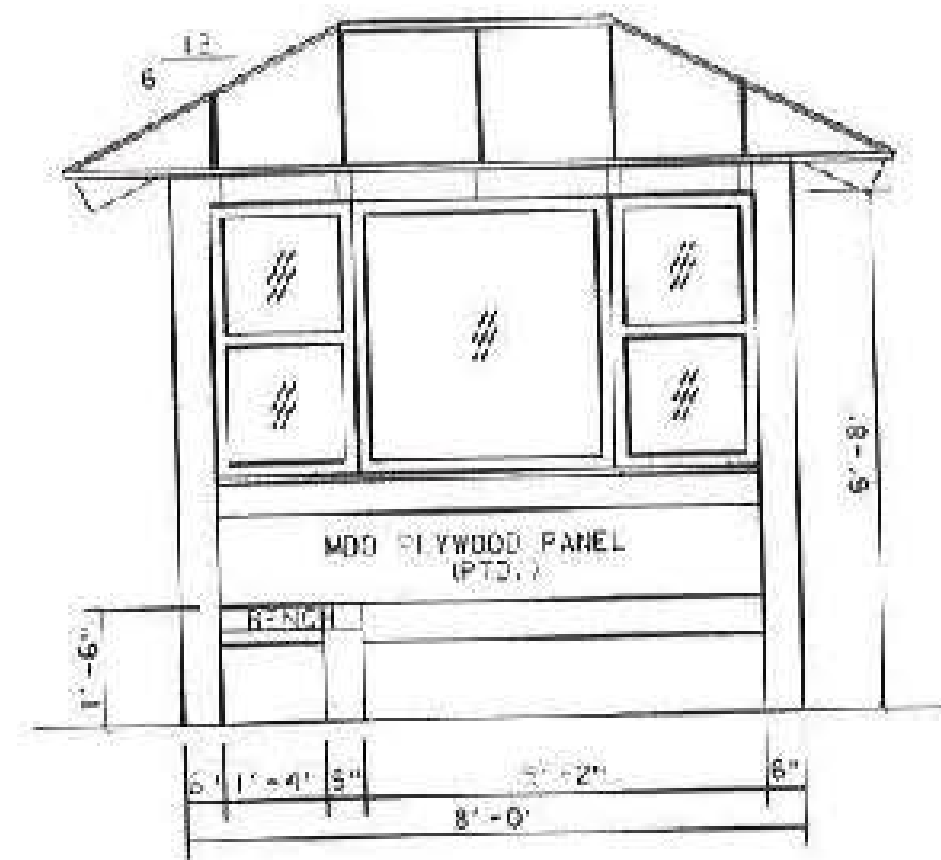
PLOT DATE: 7/23/2011
DRAWN BY: L. SUTTON
CHECKED BY: G. BOQUE
SHEET 25 OF 43



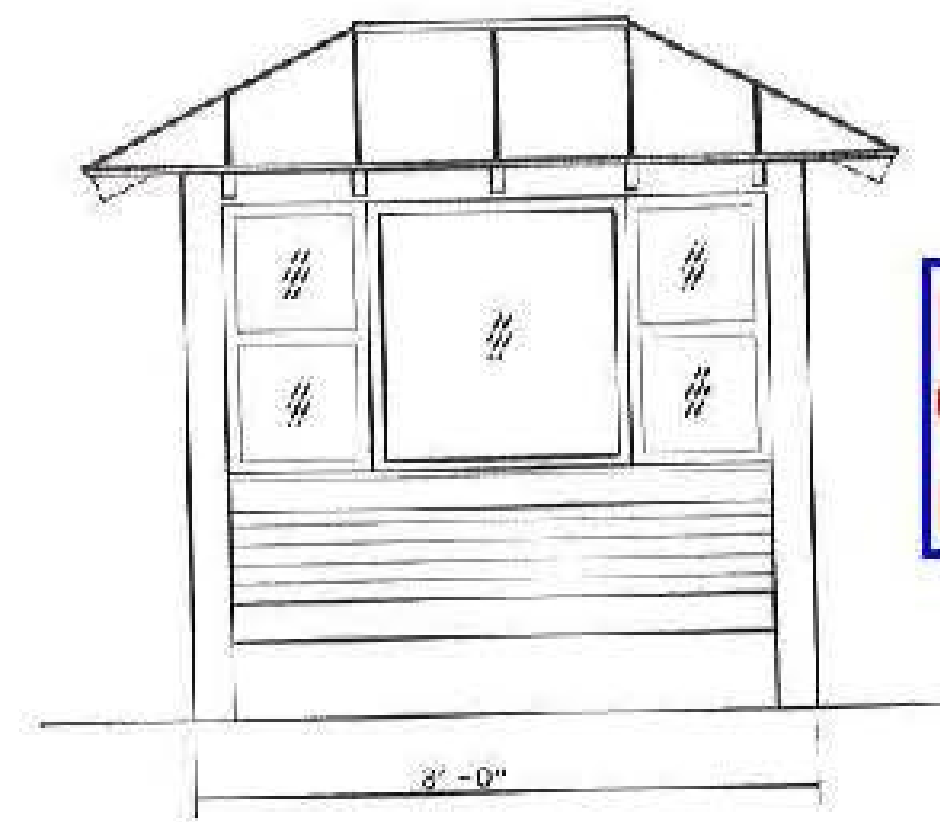
Ingram Construction Corp.
Approved for Submittal
Date 4/16/15 By SPC



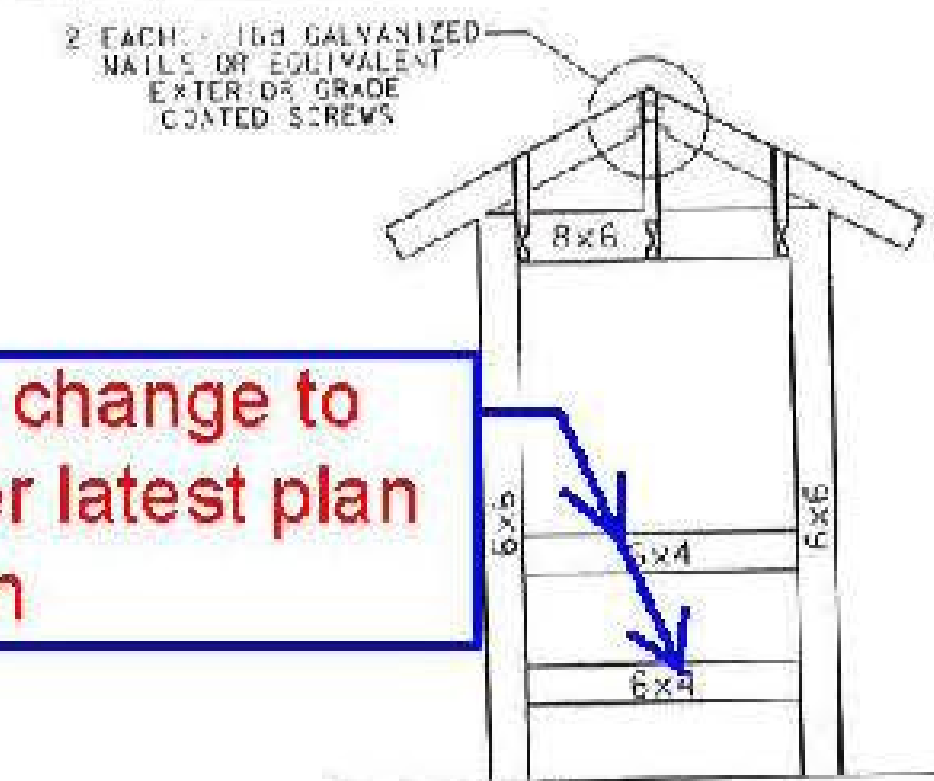
END ELEVATION (TYP.)
SCALE: 1/2" = 1'-0"



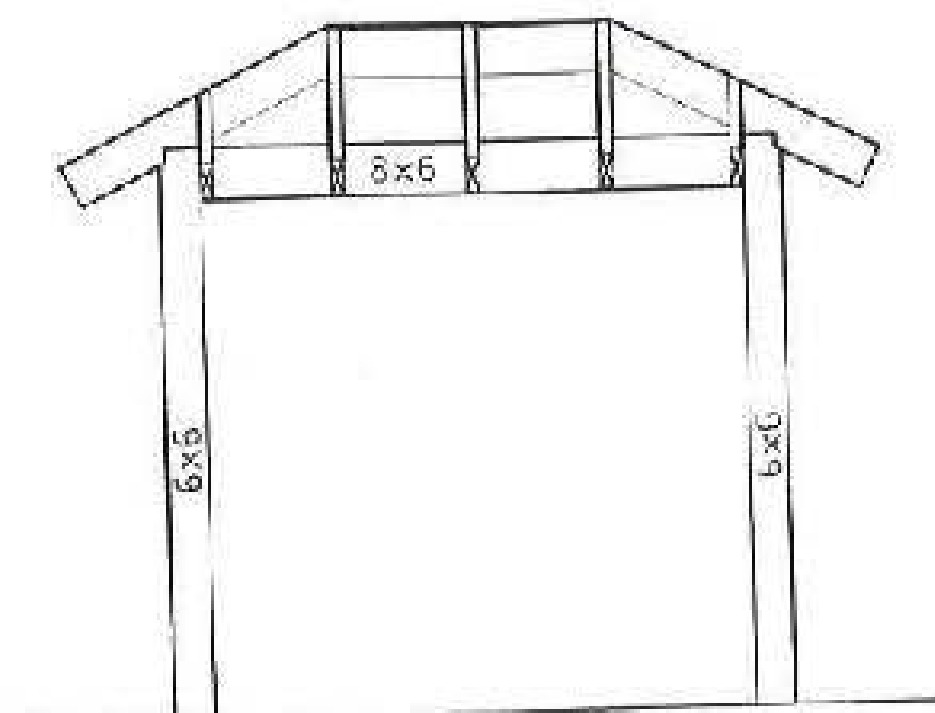
FRONT/INTERIOR ELEVATION
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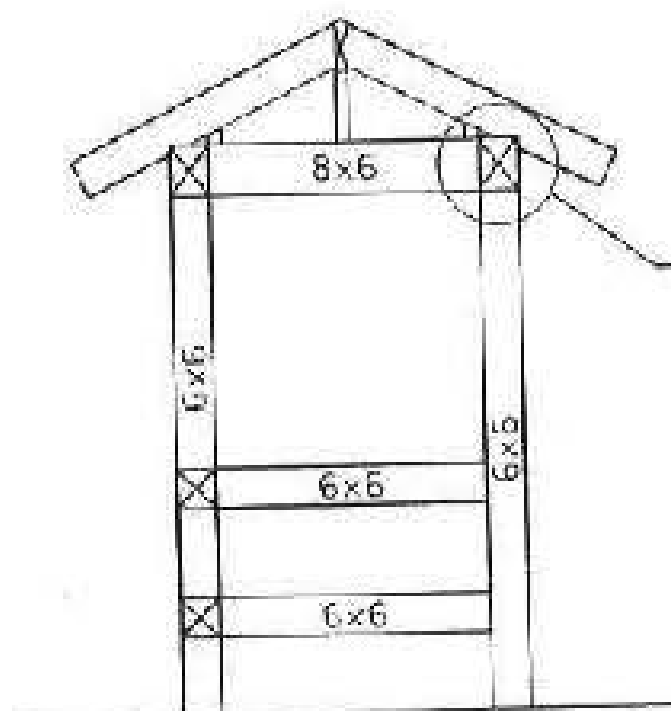
REAR ELEVATION
SCALE: 1/2" = 1'-0"



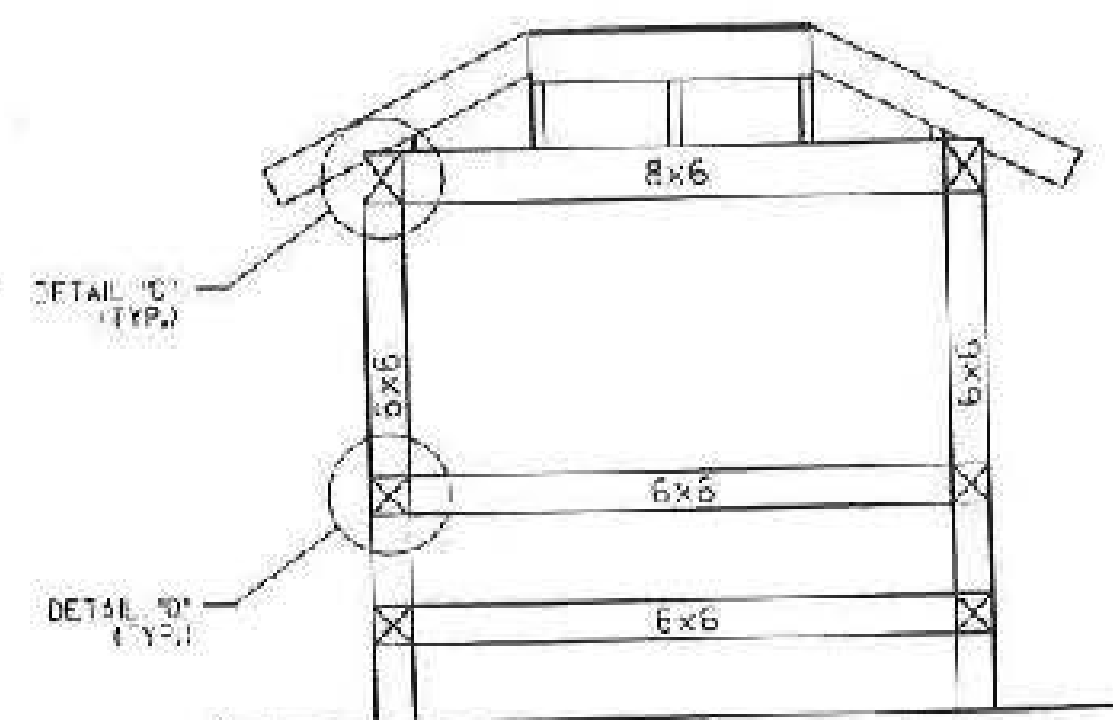
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SCALE: 1/2" = 1'-0"



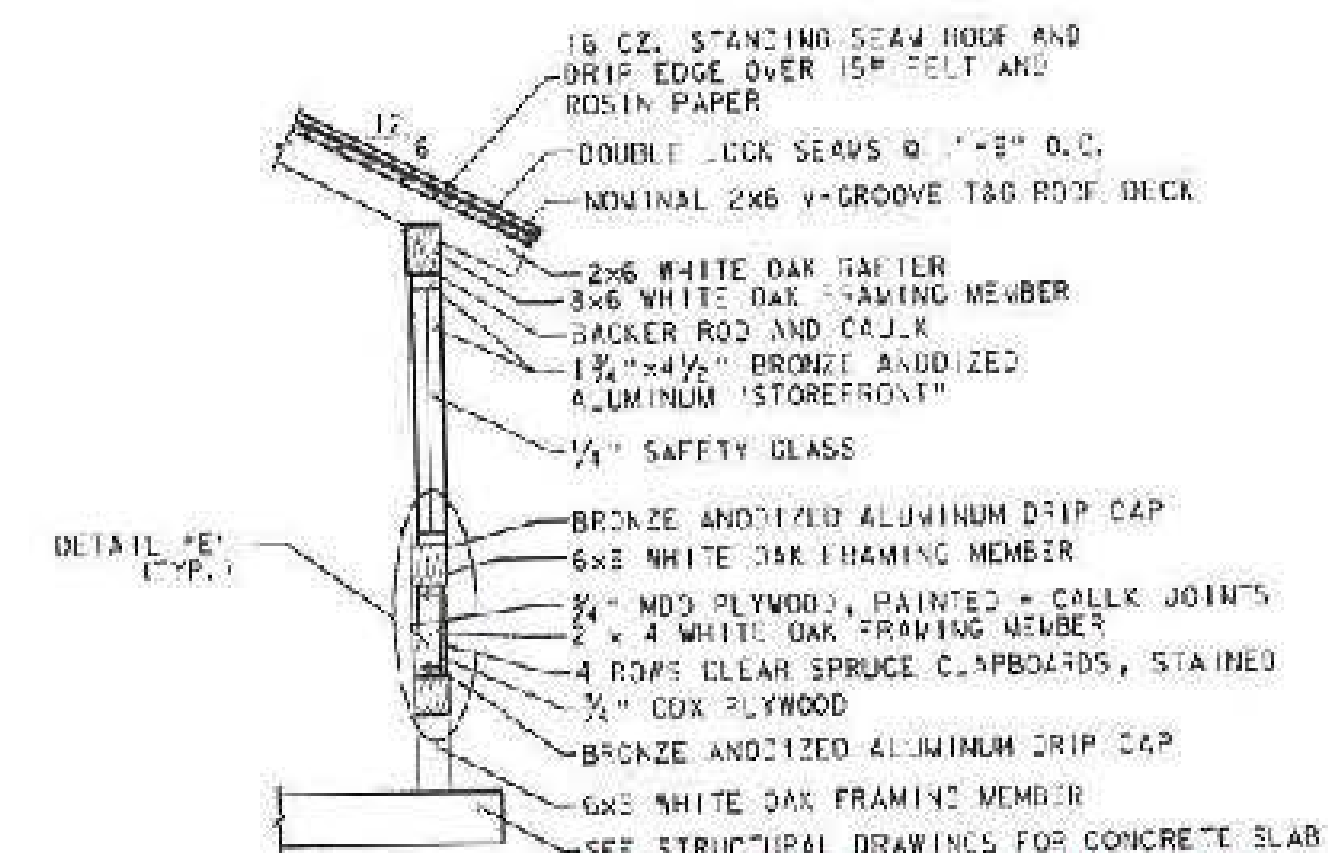
FRONT/REAR FRAMING - ELEVATION
SCALE: 1/2" = 1'-0"



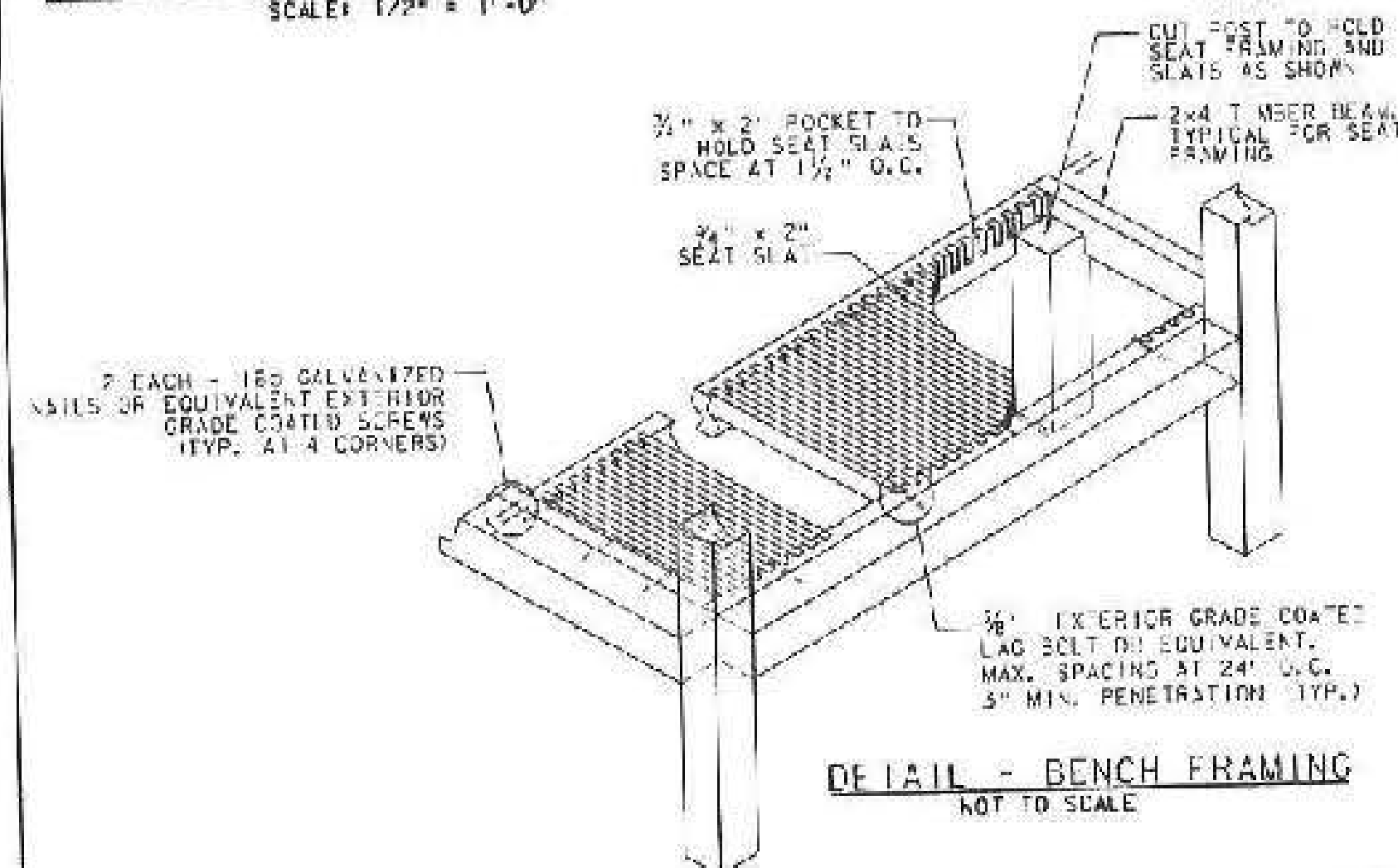
END FRAMING - SECTION
SCALE: 1/2" = 1'-0"



FRONT/REAR FRAMING - SECTION
SCALE: 1/2" = 1'-0"



TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"



DETAIL - BENCH FRAMING
NOT TO SCALE

Ingram Construction Corp.
Approved for Submittal
Date 4/16/15 By SPL

NOTE:
FOR DETAILS B & C, SEE BUS SHELTER DETAILS 3.
FOR DETAILS D & E, SEE BUS SHELTER DETAILS 4.
& ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: CMG PARK (32)

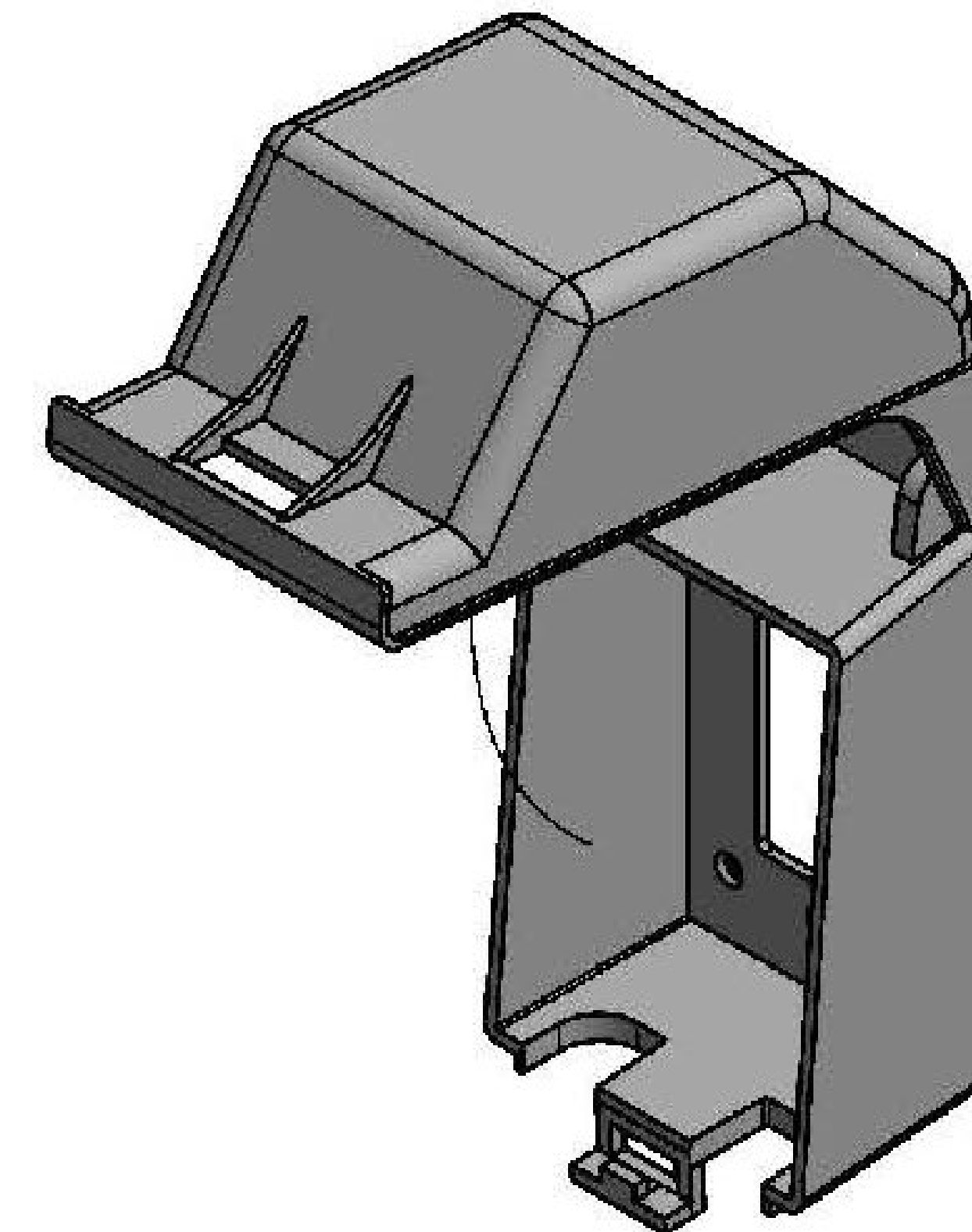
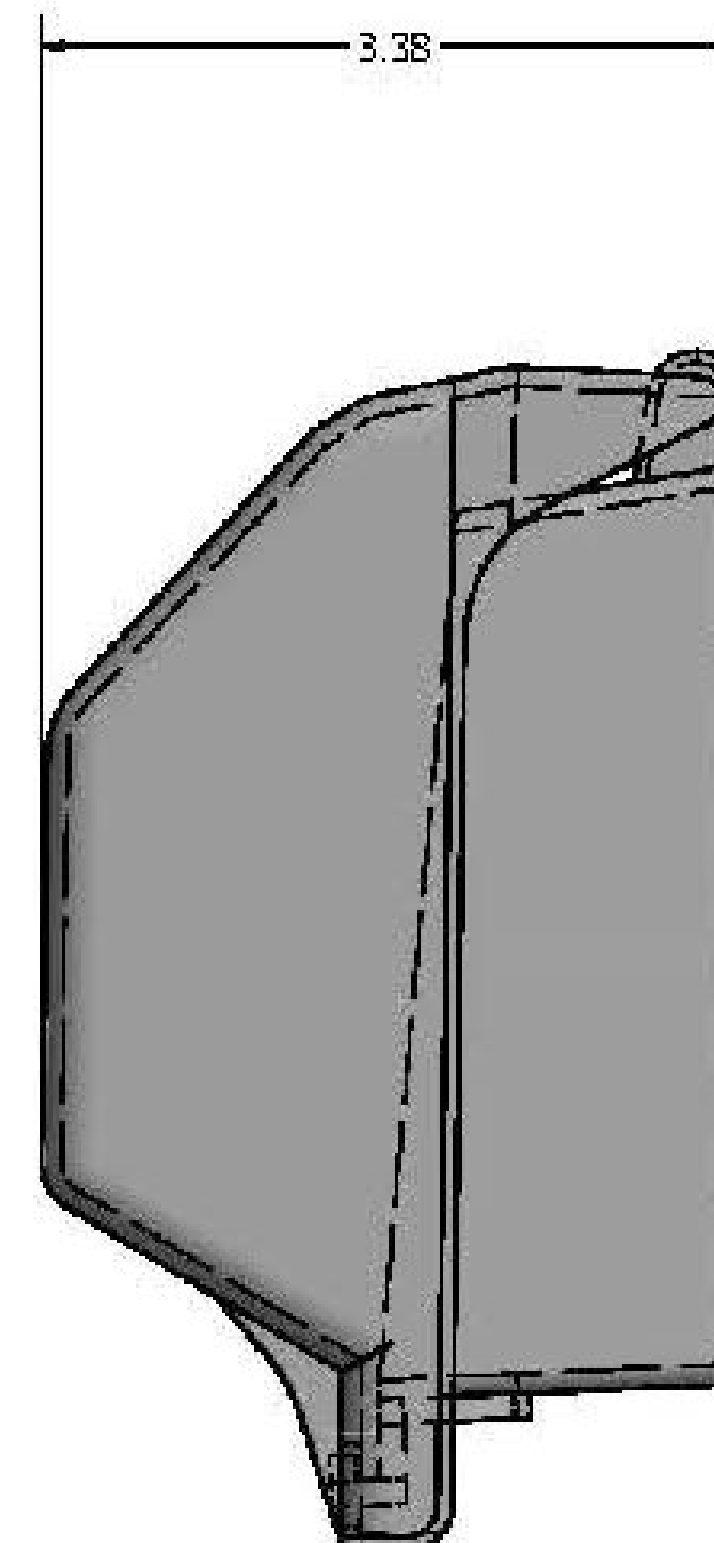
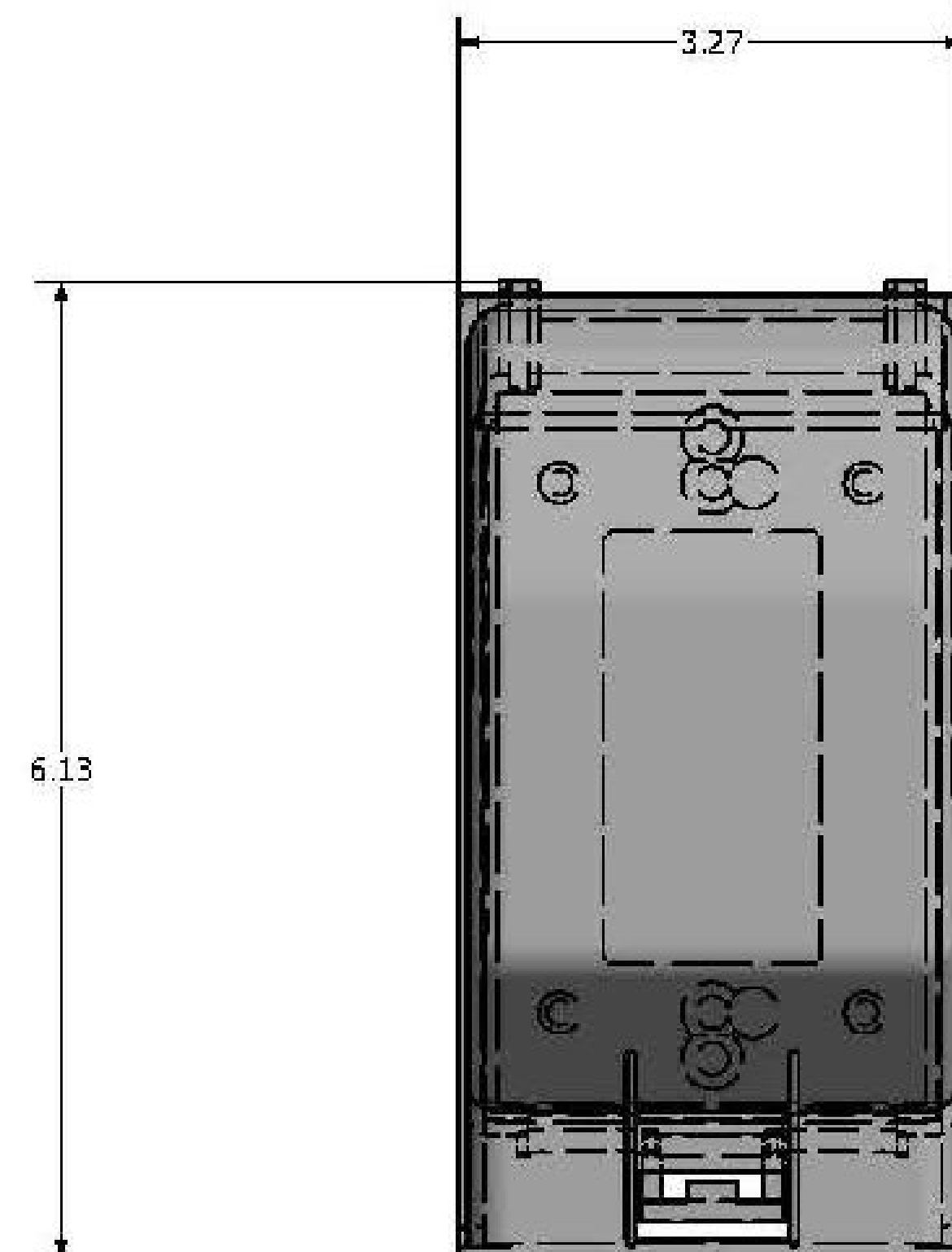
FILE NAME: 209K257MHNF.dwg
PROJECT LEADER: M. J. D. S.
DESIGNED BY: J. LINGERFORD
BUS SHELTER DETAILS 2

PLOT DATE: 5/25/2014
DRAWN BY: C. BURTON
CHECKED BY: G. BOGLE
SHEET 26 OF 43



NOTES:

1. WEATHER PROOF WHILE IN USE
2. HEAVY DUTY ALL METAL CONSTRUCTION
3. LOCKABLE SECURITY COVER
4. 3 1/4 IN. INTERNAL DEPTH
5. FOR USE WITH GFCI, DUPLEX, SWITCH, OR SINGLE RECEPTACLES.
6. MEETS NEC EXTRA DUTY REQUIREMENTS
7. PROVIDED WITH ADAPTER PLATES AND FOAM GASKET.



✓ WEATHERPROOF COVER
OPEN POSITION

UNIVERSAL METAL WEATHERPROOF COVER

FINISH: COVER SHALL HAVE A POLYESTER
POWDER COAT FINISH TO MATCH POLE. ✓



P.O. BOX 340 • EASTPOINTE, MI 48021
PHONE: 586-771-4610 • FAX: 586-771-5527
WWW.LYTEPOLESINC.COM

DRAWN:	M. HARVALA	4/14/2014
CHECKED:		
REVISION:		DATE:
APPROVED:		
QUOTE:		
S.O.#		
REF:		SCALE: NONE

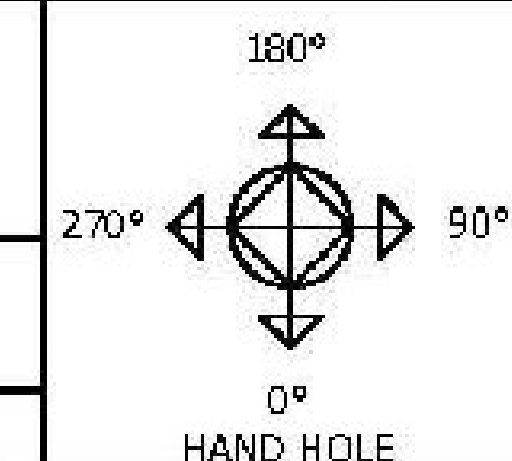
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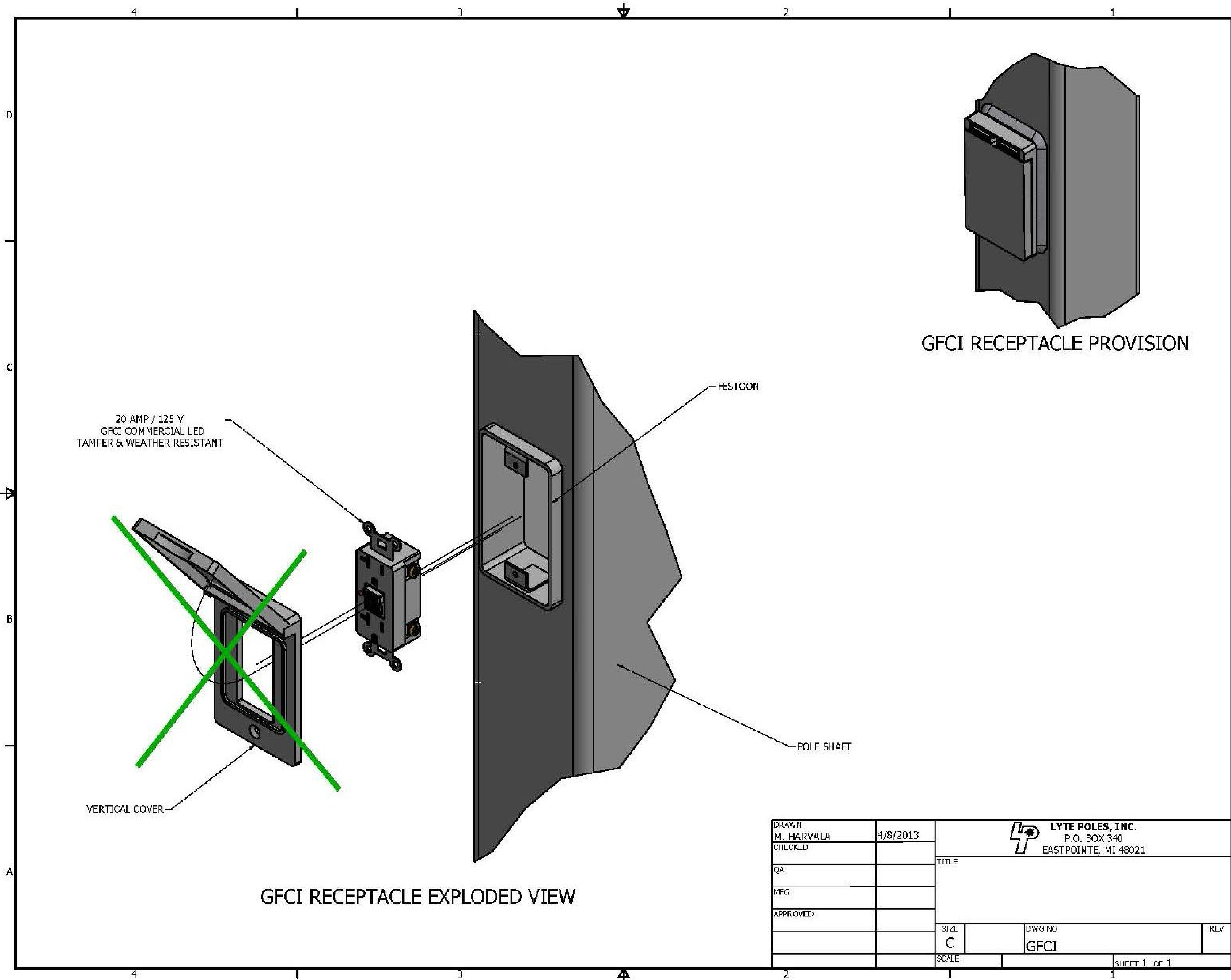
CATALOG NO.

DWG NO: IUC

SIZE C

SHEET 1 OF 1





DRAWN	M. HARVALA	4/8/2013	 LYTE POLES, INC. P.O. BOX 340 EASTPOINTE, MI 48021	
CHECKED				
QA			TITLE	
MEG				
APPROVED			SCALE	
			SHEET 1 of 1	

SHEET	C	DWG NO	GFCI	REV
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1200 Elm Street
Unit 412
Manchester, NH 03101

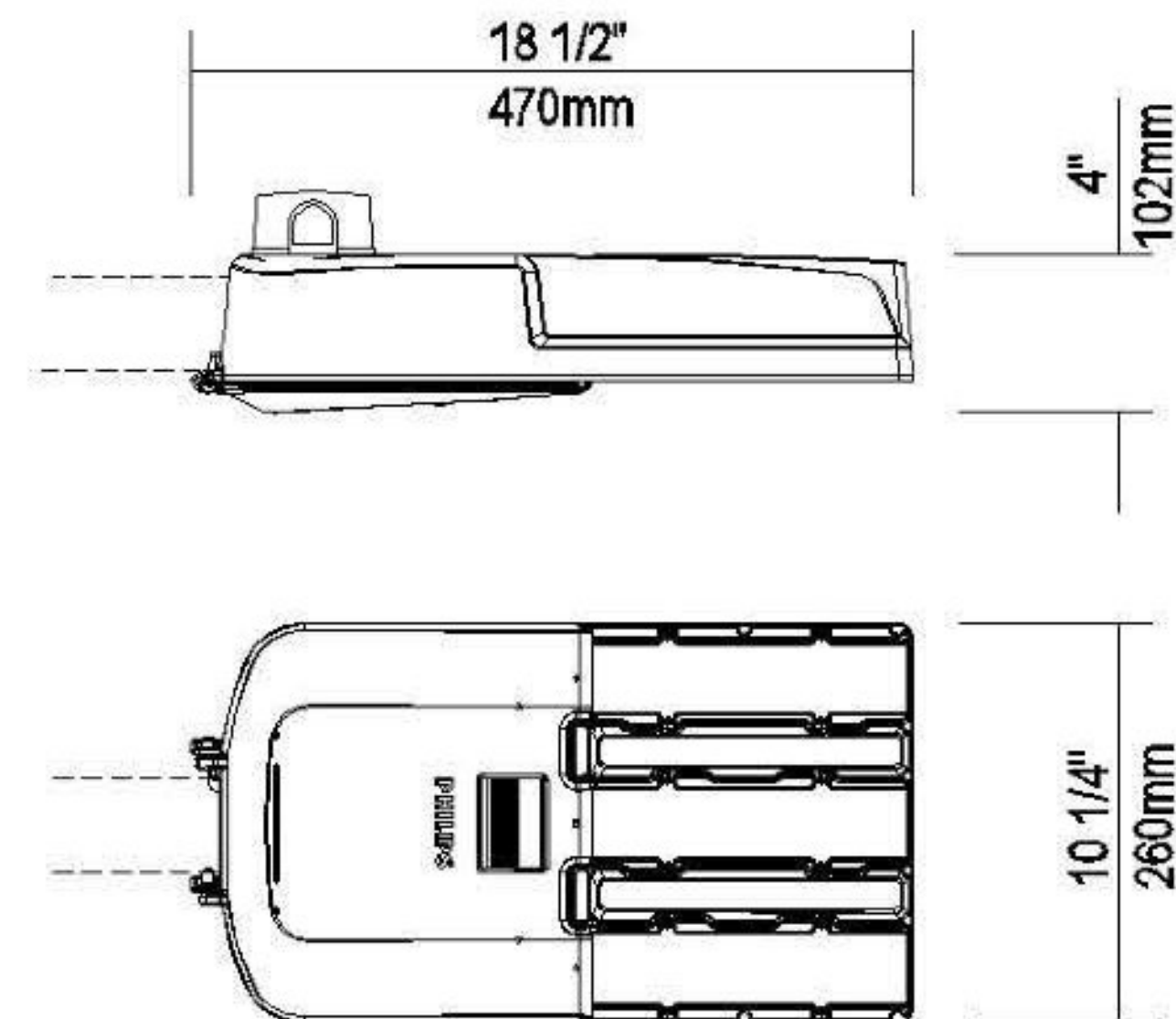
Phone: 877-886-2843
Fax: 877-886-2844

To: GRANITE CITY - BENNINGTON VT 14 MORSE ROAD BENNINGTON, VT 05201 Attn: MARK TIMMERMAN		Submittal Source Quote: SPFLDPRKAN Entry Date: 3/24/2015 Project: SPRINGFIELD PARK AND RIDE
Original Submittal for Approval 1 Copy of Submittals is Attached		
Type	Mfg	Description
→ A	Philips Lumec	SVM-32W32LED4K-R-LE3-UNIV-DMG-WC-10-RC-SP1-PH8-BR
A	Lytepoles	405-7015-18-YD-MODTENON-SSAB-IDTAG-CC
A	Lytepoles	405-7015-18-YD-GFI-MODTENON-SSAB-IDTAG-CC
→ B	Philips Lumec	SVM-24W16LED4K-R-LE3-UNIV-DMG-WC-10-RC-SP1-PH8-BR
B	Lytepoles	405-7015-18-YD-(2)GFI-(2)MODTENON-SSAB-IDTAG-CC

APPROVED: Approval of drawings and/or procedures indicates concurrence with the information presented and does not relieve the Contractor or Fabricator of compliance with all specifications and code requirements		
APPROVED AS NOTED	X	
REVISE AND RESUBMIT		
NOT REVIEWED		
Date: 25 March 2015		
Signature: M Crowley		
This review by Stantec Consulting Services Inc. is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that Stantec Consulting Services Inc. approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor. Submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawing or of his responsibility for meeting all requirements of the Contract Documents. The contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes or to techniques of construction and installation and for coordination of the work of all subtrades.		

Remarks:

FIXTURE TYPE A
SL7, SL8, SL9, SL10, SL11, SL12, SL13, SL14



EPA: 0.513 sq ft / weight: 10.4 lb (4.7 kg)
Note: 3D image may not represent color or option selected.
Logos above include link, click to access.

Qty	1	Luminaire	SVM-32W32LED4K-R-LE3-UNIV-DMG-RC-WC10-SP1-BR
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Description of Components:

Housing: Made of a die cast Aluminum alloy (A360), 0.100" (2.5mm) minimum thickness. Fits on a 1.66" (42mm) O.D. (1.25" NPS), 1.9" (48mm) O.D. (1.5" NPS) or 2 3/8" (60mm) O.D. (2" NPS) by 5 1/4" (133mm) minimum long tenon. Comes with a zinc plated clamp fixed by 2 zinc plated hexagonal bolts 3/8 16 UNC for ease of installation. Provides an easy step adjustment of +/- 5° tilt in 2.5° increments. A quick release, tool less entry, hinged, removable door opens downward to provide access to electronic components and to a terminal block. Door is secured to prevent accidental dropping or disengagement. A clearance of 8" (203mm) at the rear is required in order to remove the door. Complete with a bird guard protecting against birds and similar intruders and an ANSI label to identify wattage and source (both included in box).

Light Engine: Composed of 4 main components: **Heat Sink / LED Module / Optical System / Driver**
Electrical components are RoHS compliant, IP66 sealed light engine equipped with Philips Lumileds LUXEON R LEDs. LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines in compliance with EPA ENERGY STAR, extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

Heat Sink: Built-in the housing, the innovative high efficacy heat sink chimney design ensures superior cooling by natural convection air flow pattern always close to LEDs and driver optimising their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling). Wide channels enable natural cleaning and removal of dirt and debris. Entire luminaire is rated for operation in ambient temperature of -40°C / -40°F up to +40°C / +104°F.

Lamp: LED Module (Included), LED type Philips Lumileds LUXEON R. Composed of 32 high-performance white LEDs. Color temperature as per ANSI bin 4000 Kelvin nominal (3985K +/- 275K), CRI 70 Min. 75 Typical.

Optical System: (LE3), IES type III (asymmetrical). Composed of high-performance optical grade PMMA acrylic refractor

lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. System is rated IP66. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. Dark Sky compliant with 0% uplight and U0 per IESNA TM-15.

Driver: High power factor of 95%. Electronic driver, operating range 50/60 Hz. Auto-adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. **(DMG)**, Dimming compatible 0-10 volts.

The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built-in driver surge protection of 2.5kV (min).

Driver Options: (DMG) Integrated Feature, Dimming compatible 0-10 volts. For applicable warranty, certification and operation guide see Philips Lumec dimmable luminaire specification document for unapproved device installed by other. To get document, click on this link: [Specification document](http://www.lumec.com/Lumec3DV2/PdfWebLink/Philips%20Lumec%20dimmable%20luminaire%20specification%20document%20for%20unapproved%20device%20installed%20by%20other.pdf) or go on web site on this address: <http://www.lumec.com/Lumec3DV2/PdfWebLink/Philips Lumec dimmable luminaire specification document for unapproved device installed by other.pdf>

Control Options: For this specific wattage, resistor on driver dimming port must be removed to use dimming option with controls. Note that this fixture will return to maximum output drive current when resistor is removed.

Luminaire Options: (RC) Integrated Feature, Receptacle for a twist-lock photoelectric cell or a shorting cap. Use of photocell or shorting cap is required to ensure proper illumination. **(SP1)**, Integral surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid-State Street Lighting Consortium) model specification for LED roadway luminaires electrical immunity requirements for High Test Level 10kV / 10kA. **(WC 10) Integrated Feature**, Luminaire comes with a warranty of 10 years on product and finish. See http://www.usa.lighting.philips.com/connect/tools_literature/warranties.wpd for details.

Luminaire Useful Life: Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in-situ thermal testing in accordance with UL1598 and UL8750, Philips Advance data and Philips Lumileds LM-80/TM-21 data, expected to reach 100,000 + hours with >L70 lumen maintenance @ 25°C.

Qty	1	Accessories	PH8
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Description of Components:

Accessories: (PH8), Photoelectric Cell, Twist-lock Type.

Note: The accessories will be shipped separately from the luminaire box.

Miscellaneous

Description of Components:

Wiring: The connection of the luminaire is done using a terminal block connector 600V, 85A for use with #2-14 AWG. wires from the primary circuit, located inside the housing. Due to the inrush current that occurs with electronic drivers, recommend using a time-delay or slow blow fuse to avoid unnecessary and unwanted fuse blowing that can occur with fast-acting fuses.

Hardware: All exposed screws shall be steel zinc plated with Ceramic primer-seal basecoat to reduce seizing of the parts. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

Finish: Textured color to be advised (Product Standard Color only): _____ (COLTX) and in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with ± 1 mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard.

The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

Note: IMPORTANT: All missing details must be clearly specified on the return of these approval drawings. Thank you for your cooperation.

COLOR: _____

LED products manufacturing standard: The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

Vibration Resistance: The SVM meets the **ANSI C136.31**, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100 000 cycles by an independent lab)

Web site information details: Click on any specific information details you need: / [Installation pictures](#) / [cULus Certification](#) / [Dynadimmer specification](#) / [Warranty](#)

Certifications and Compliance: cULus Listed for Canada and USA. Luminaire meets DOE and MSSLC Model Specification for LED Roadway Luminaires.

LED light engine technical information information for SVM													
LED = Philips Lumileds Luxeon R and T, CRI = 75, CCT = 4000K (+/- 350K)													
System (LED + driver) rated life = 100,000 hrs ¹													
Lamp	Typical delivered lumens	Typical system wattage ² (W)	Typical current @ 120 V (A)	Typical current @ 208 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	Typical current @ 347 V (A)	Typical current @ 480 V (A)	LED current (mA)	HID equivalent ³	Luminaire Efficacy Rating (lm/W)	BUG rating	
16W16LED4K-R-LE2	1761	19	0.160	0.100	0.090	0.082	N/A	N/A	350	50-70W	100	B1 U0 G1	
16W16LED4K-R-LE3	1870	19	0.160	0.100	0.090	0.082	N/A	N/A	350	50-70W	107	B1 U0 G1	
16W16LED4K-R-LE5	1784	19	0.160	0.100	0.090	0.082	N/A	N/A	350	50-70W	102	B2 U0 G0	
22W16LED4K-R-LE2	2359	25	0.210	0.125	0.115	0.105	N/A	N/A	470	50-70W	95	B1 U0 G1	
22W16LED4K-R-LE3	2504	25	0.210	0.125	0.115	0.105	N/A	N/A	470	50-70W	101	B1 U0 G1	
22W16LED4K-R-LE5	2390	25	0.210	0.125	0.115	0.105	N/A	N/A	470	50-70W	96	B2 U0 G1	
24W16LED4K-R-LE2	2511	27	0.225	0.135	0.120	0.110	N/A	N/A	530	70-100W	94	B1 U0 G1	
24W16LED4K-R-LE3	2666	27	0.225	0.135	0.120	0.110	N/A	N/A	530	70-100W	100	B1 U0 G1	
24W16LED4K-R-LE5	2544	27	0.225	0.135	0.120	0.110	N/A	N/A	530	70-100W	95	B2 U0 G1	
30W16LED4K-R-LE2	3075	37	0.290	0.175	0.150	0.135	N/A	N/A	700	70-100W	87	B1 U0 G1	
30W16LED4K-R-LE3	3295	37	0.290	0.175	0.150	0.135	N/A	N/A	700	70-100W	92	B1 U0 G1	
30W16LED4K-R-LE5	3145	37	0.290	0.175	0.150	0.135	N/A	N/A	700	70-100W	88	B2 U0 G1	
32W32LED4K-R-LE2	3618	37	0.300	0.185	0.165	0.155	0.105	0.090	350	70-100W	103	B1 U0 G1	
32W32LED4K-R-LE3	3754	37	0.300	0.185	0.165	0.155	0.105	0.090	350	70-100W	107	B1 U0 G1	
32W32LED4K-R-LE5	3404	37	0.300	0.185	0.165	0.155	0.105	0.090	350	70-100W	97	B2 U0 G1	
48W32LED4K-R-LE2	5309	54	0.450	0.270	0.240	0.215	0.160	0.130	530	70-100W	100	B1 U0 G1	
48W32LED4K-R-LE3	5509	54	0.450	0.270	0.240	0.215	0.160	0.130	530	70-100W	104	B1 U0 G1	
48W32LED4K-R-LE5	4995	54	0.450	0.270	0.240	0.215	0.160	0.130	530	70-100W	94	B3 U0 G1	
60W32LED4K-R-LE2	6619	72	0.595	0.340	0.295	0.265	0.210	0.160	700	100-150W	94	B2 U0 G1	
60W32LED4K-R-LE3	6924	72	0.595	0.340	0.295	0.265	0.210	0.160	700	100-150W	97	B2 U0 G2	
60W32LED4K-R-LE5	6280	72	0.595	0.340	0.295	0.265	0.210	0.160	700	100-150W	89	B3 U0 G1	
48W48LED4K-R-LE2	5090	52	0.440	0.260	0.250	0.230	0.160	0.130	350	70-100W	105	B1 U0 G1	
48W48LED4K-R-LE3	5224	52	0.440	0.260	0.250	0.230	0.160	0.130	350	70-100W	107	B1 U0 G1	
48W48LED4K-R-LE5	5097	52	0.440	0.260	0.250	0.230	0.160	0.130	350	70-100W	105	B3 U0 G1	
72W48LED4K-R-LE2	7705	80	0.660	0.390	0.350	0.310	0.225	0.170	530	100-150W	99	B2 U0 G2	
72W48LED4K-R-LE3	7909	80	0.660	0.390	0.350	0.310	0.225	0.170	530	100-150W	101	B2 U0 G2	
72W48LED4K-R-LE5	7717	80	0.660	0.390	0.350	0.310	0.225	0.170	530	100-150W	99	B3 U0 G2	
90W48LED4K-R-LE2	9854	107	0.890	0.515	0.455	0.390	0.305	0.225	700	150-175W	95	B2 U0 G2	
90W48LED4K-R-LE3	10113	107	0.890	0.515	0.455	0.390	0.305	0.225	700	150-175W	98	B2 U0 G2	
90W48LED4K-R-LE5	9868	107	0.890	0.515	0.455	0.390	0.305	0.225	700	150-175W	95	B4 U0 G4	
140W48LED4K-T-LE2	14556	160	1.330	0.760	0.665	0.575	N/A	N/A	1050	200-250W	94	B3-U0-G2	
140W48LED4K-T-LE3	15200	160	1.330	0.760	0.665	0.575	N/A	N/A	1050	200-250W	98	B3-U0-G2	
140W48LED4K-T-LE5	14880	160	1.330	0.760	0.665	0.575	N/A	N/A	1050	200-250W	96	B4-U0-G2	

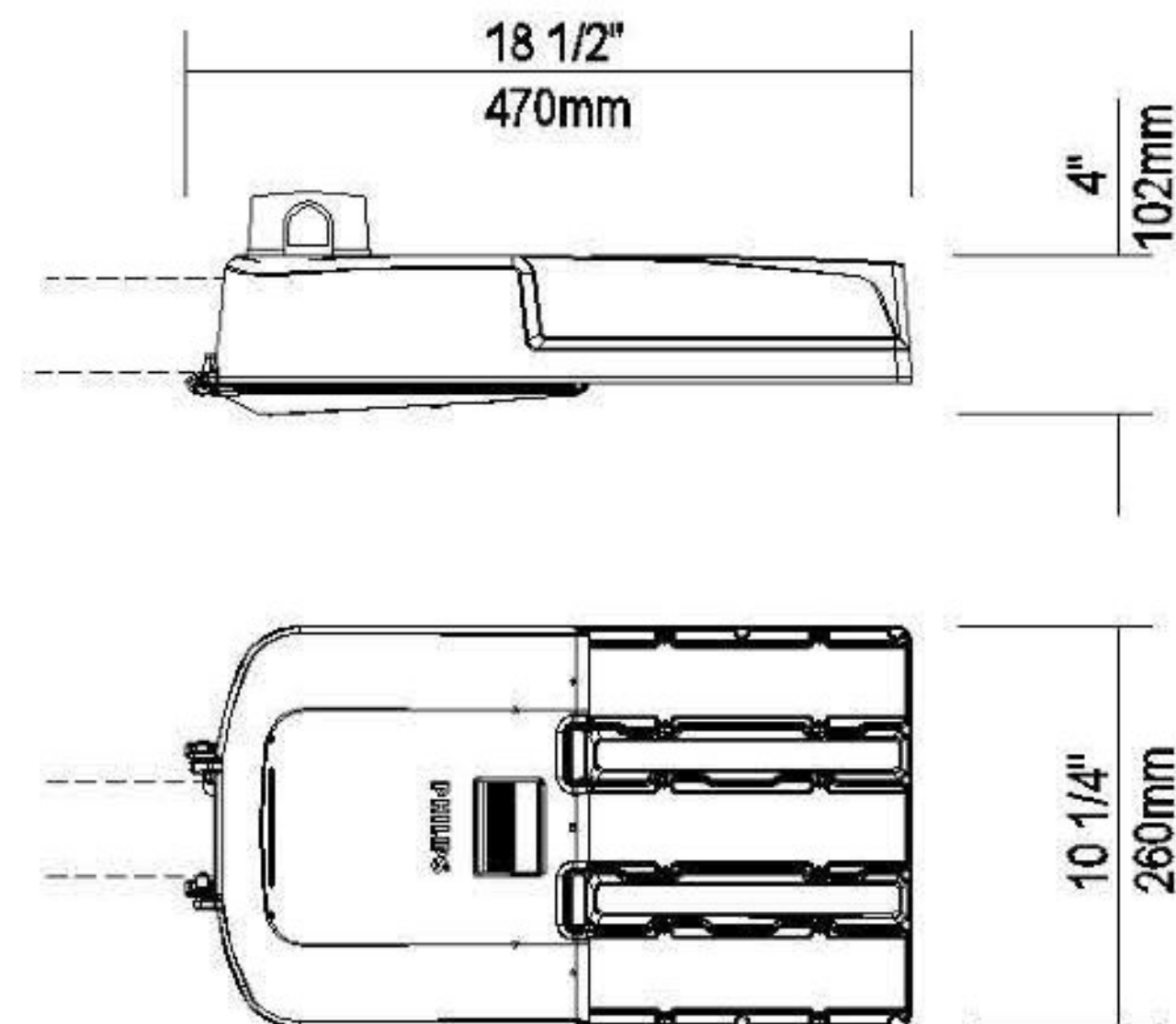
¹ L70 = 100,000 hrs (at ambient temperature = 25°C and forward current = 700 mA)
² System wattage includes the lamp and the LED driver.
³ Equivalence should always be confirmed by a photometric layout.

Note : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.



FIXTURE TYPE B

SL1, SL2, SL3, SL4, SL5, SL6



EPA: 0.513 sq ft / weight: 10.4 lb (4.7 kg)
Note: 3D image may not represent color or option selected.
Logos above include link, click to access.

Qty	1	Luminaire	SVM-24W16LED4K-R-LE3-UNIV-DMG-RC-WC10-SP1-BR
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Description of Components:

Housing: Made of a die cast Aluminum alloy (A360), 0.100" (2.5mm) minimum thickness. Fits on a 1.66" (42mm) O.D. (1.25" NPS), 1.9" (48mm) O.D. (1.5" NPS) or 2 3/8" (60mm) O.D. (2" NPS) by 5 1/4" (133mm) minimum long tenon. Comes with a zinc plated clamp fixed by 2 zinc plated hexagonal bolts 3/8 16 UNC for ease of installation. Provides an easy step adjustment of +/- 5° tilt in 2.5° increments. A quick release, tool less entry, hinged, removable door opens downward to provide access to electronic components and to a terminal block. Door is secured to prevent accidental dropping or disengagement. A clearance of 8" (203mm) at the rear is required in order to remove the door. Complete with a bird guard protecting against birds and similar intruders and an ANSI label to identify wattage and source (both included in box).

Light Engine: Composed of 4 main components: **Heat Sink / LED Module / Optical System / Driver**

Electrical components are RoHS compliant, IP66 sealed light engine equipped with Philips Lumileds LUXEON R LEDs. LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines in compliance with EPA ENERGY STAR, extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

Heat Sink: Built-in the housing, the innovative high efficacy heat sink chimney design ensures superior cooling by natural convection air flow pattern always close to LEDs and driver optimising their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling). Wide channels enable natural cleaning and removal of dirt and debris. Entire luminaire is rated for operation in ambient temperature of -40°C / -40°F up to +40°C / +104°F.

Lamp: LED Module (Included), LED type Philips Lumileds LUXEON R. Composed of 16 high-performance white LEDs. Color temperature as per ANSI bin 4000 Kelvin nominal (3985K +/- 275K), CRI 70 Min. 75 Typical.

Optical System: (LE3), IES type III (asymmetrical). Composed of high-performance optical grade PMMA acrylic refractor

lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. System is rated IP66. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. Dark Sky compliant with 0% uplight and U0 per IESNA TM-15.

Driver: High power factor of 95%. Electronic driver, operating range 50/60 Hz. Auto-adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. **(DMG)**, Dimming compatible 0-10 volts.

The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built-in driver surge protection of 2.5kV (min).

Driver Options: (DMG) Integrated Feature, Dimming compatible 0-10 volts. For applicable warranty, certification and operation guide see Philips Lumec dimmable luminaire specification document for unapproved device installed by other. To get document, click on this link: [Specification document](http://www.lumec.com/Lumec3DV2/PdfWebLink/Philips%20Lumec%20dimmable%20luminaire%20specification%20document%20for%20unapproved%20device%20installed%20by%20other.pdf) or go on web site on this address: <http://www.lumec.com/Lumec3DV2/PdfWebLink/Philips Lumec dimmable luminaire specification document for unapproved device installed by other.pdf>

Control Options: For this specific wattage, resistor on driver dimming port must be removed to use dimming option with controls. Note that this fixture will return to maximum output drive current when resistor is removed.

Luminaire Options: (RC) Integrated Feature, Receptacle for a twist-lock photoelectric cell or a shorting cap. Use of photocell or shorting cap is required to ensure proper illumination. **(SP1)**, Integral surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid-State Street Lighting Consortium) model specification for LED roadway luminaires electrical immunity requirements for High Test Level 10kV / 10kA. **(WC 10) Integrated Feature**, Luminaire comes with a warranty of 10 years on product and finish. See http://www.usa.lighting.philips.com/connect/tools_literature/warranties.wpd for details.

Luminaire Useful Life: Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in-situ thermal testing in accordance with UL1598 and UL8750, Philips Advance data and Philips Lumileds LM-80/TM-21 data, expected to reach 100,000 + hours with >L70 lumen maintenance @ 25°C.

Springfield Park Ride Type B (Reference=35944-1)

Qty	1	Accessories	PH8
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Description of Components:

Accessories: (PH8), Photoelectric Cell, Twist-lock Type.

Note: The accessories will be shipped separately from the luminaire box.

Miscellaneous

Description of Components:

Wiring: The connection of the luminaire is done using a terminal block connector 600V, 85A for use with #2-14 AWG. wires from the primary circuit, located inside the housing. Due to the inrush current that occurs with electronic drivers, recommend using a time-delay or slow blow fuse to avoid unnecessary and unwanted fuse blowing that can occur with fast-acting fuses.

Hardware: All exposed screws shall be steel zinc plated with Ceramic primer-seal basecoat to reduce seizing of the parts. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

Finish: Color to be **medium grey (GY3)** and in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with ± 1 mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard.

The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

LED products manufacturing standard: The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

Vibration Resistance: The SVM meets the **ANSI C136.31**, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100 000 cycles by an independent lab)

Web site information details: Click on any specific information details you need: / [Installation pictures](#) / [cULus Certification](#) / [Dynadimmer specification](#) / [Warranty](#)

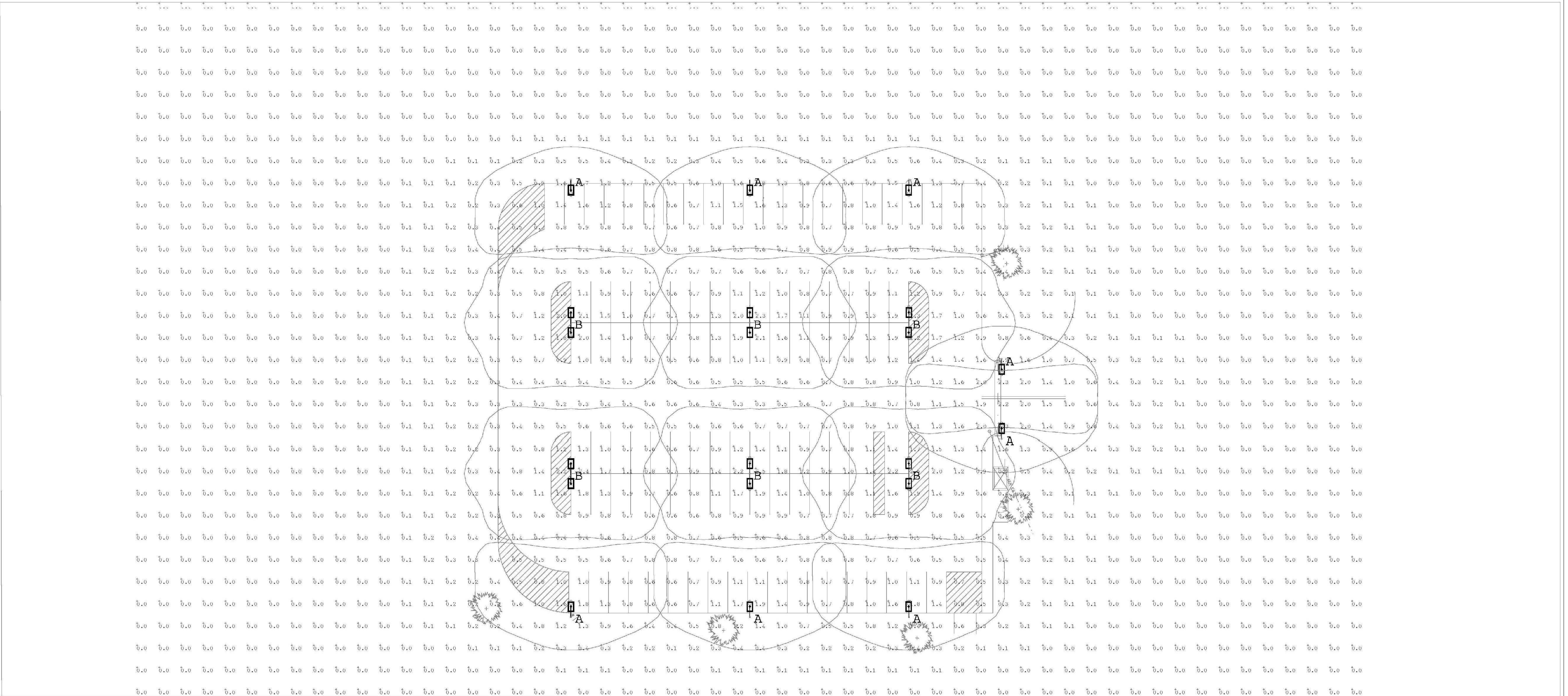
Certifications and Compliance: cULus Listed for Canada and USA. Luminaire meets DOE and MSSLC Model Specification for LED Roadway Luminaires.

Springfield Park Ride Type B (Reference=35944-1)

LED light engine technical information information for SVM													
LED = Philips Lumileds Luxeon R and T, CRI = 75, CCT = 4000K (+/- 350K)													
System (LED + driver) rated life = 100,000 hrs ¹													
Lamp	Typical delivered lumens	Typical system wattage ² (W)	Typical current @ 120 V (A)	Typical current @ 208 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	Typical current @ 347 V (A)	Typical current @ 480 V (A)	LED current (mA)	HID equivalent ³	Luminaire Efficacy Rating (lm/W)	BUG rating	
16W16LED4K-R-LE2	1761	19	0.160	0.100	0.090	0.082	N/A	N/A	350	50-70W	100	B1 U0 G1	
16W16LED4K-R-LE3	1870	19	0.160	0.100	0.090	0.082	N/A	N/A	350	50-70W	107	B1 U0 G1	
16W16LED4K-R-LE5	1784	19	0.160	0.100	0.090	0.082	N/A	N/A	350	50-70W	102	B2 U0 G0	
22W16LED4K-R-LE2	2359	25	0.210	0.125	0.115	0.105	N/A	N/A	470	50-70W	95	B1 U0 G1	
22W16LED4K-R-LE3	2504	25	0.210	0.125	0.115	0.105	N/A	N/A	470	50-70W	101	B1 U0 G1	
22W16LED4K-R-LE5	2390	25	0.210	0.125	0.115	0.105	N/A	N/A	470	50-70W	96	B2 U0 G1	
24W16LED4K-R-LE2	2511	27	0.225	0.135	0.120	0.110	N/A	N/A	530	70-100W	94	B1 U0 G1	
24W16LED4K-R-LE3	2666	27	0.225	0.135	0.120	0.110	N/A	N/A	530	70-100W	100	B1 U0 G1	
24W16LED4K-R-LE5	2544	27	0.225	0.135	0.120	0.110	N/A	N/A	530	70-100W	95	B2 U0 G1	
30W16LED4K-R-LE2	3075	37	0.290	0.175	0.150	0.135	N/A	N/A	700	70-100W	87	B1 U0 G1	
30W16LED4K-R-LE3	3295	37	0.290	0.175	0.150	0.135	N/A	N/A	700	70-100W	92	B1 U0 G1	
30W16LED4K-R-LE5	3145	37	0.290	0.175	0.150	0.135	N/A	N/A	700	70-100W	88	B2 U0 G1	
32W32LED4K-R-LE2	3618	37	0.300	0.185	0.165	0.155	0.105	0.090	350	70-100W	103	B1 U0 G1	
32W32LED4K-R-LE3	3754	37	0.300	0.185	0.165	0.155	0.105	0.090	350	70-100W	107	B1 U0 G1	
32W32LED4K-R-LE5	3404	37	0.300	0.185	0.165	0.155	0.105	0.090	350	70-100W	97	B2 U0 G1	
48W32LED4K-R-LE2	5309	54	0.450	0.270	0.240	0.215	0.160	0.130	530	70-100W	100	B1 U0 G1	
48W32LED4K-R-LE3	5509	54	0.450	0.270	0.240	0.215	0.160	0.130	530	70-100W	104	B1 U0 G1	
48W32LED4K-R-LE5	4995	54	0.450	0.270	0.240	0.215	0.160	0.130	530	70-100W	94	B3 U0 G1	
60W32LED4K-R-LE2	6619	72	0.595	0.340	0.295	0.265	0.210	0.160	700	100-150W	94	B2 U0 G1	
60W32LED4K-R-LE3	6924	72	0.595	0.340	0.295	0.265	0.210	0.160	700	100-150W	97	B2 U0 G2	
60W32LED4K-R-LE5	6280	72	0.595	0.340	0.295	0.265	0.210	0.160	700	100-150W	89	B3 U0 G1	
48W48LED4K-R-LE2	5090	52	0.440	0.260	0.250	0.230	0.160	0.130	350	70-100W	105	B1 U0 G1	
48W48LED4K-R-LE3	5224	52	0.440	0.260	0.250	0.230	0.160	0.130	350	70-100W	107	B1 U0 G1	
48W48LED4K-R-LE5	5097	52	0.440	0.260	0.250	0.230	0.160	0.130	350	70-100W	105	B3 U0 G1	
72W48LED4K-R-LE2	7705	80	0.660	0.390	0.350	0.310	0.225	0.170	530	100-150W	99	B2 U0 G2	
72W48LED4K-R-LE3	7909	80	0.660	0.390	0.350	0.310	0.225	0.170	530	100-150W	101	B2 U0 G2	
72W48LED4K-R-LE5	7717	80	0.660	0.390	0.350	0.310	0.225	0.170	530	100-150W	99	B3 U0 G2	
90W48LED4K-R-LE2	9854	107	0.890	0.515	0.455	0.390	0.305	0.225	700	150-175W	95	B2 U0 G2	
90W48LED4K-R-LE3	10113	107	0.890	0.515	0.455	0.390	0.305	0.225	700	150-175W	98	B2 U0 G2	
90W48LED4K-R-LE5	9868	107	0.890	0.515	0.455	0.390	0.305	0.225	700	150-175W	95	B4 U0 G4	
140W48LED4K-T-LE2	14556	160	1.330	0.760	0.665	0.575	N/A	N/A	1050	200-250W	94	B3-U0-G2	
140W48LED4K-T-LE3	15200	160	1.330	0.760	0.665	0.575	N/A	N/A	1050	200-250W	98	B3-U0-G2	
140W48LED4K-T-LE5	14880	160	1.330	0.760	0.665	0.575	N/A	N/A	1050	200-250W	96	B4-U0-G2	

¹ L70 = 100,000 hrs (at ambient temperature = 25°C and forward current = 700 mA)
² System wattage includes the lamp and the LED driver.
³ Equivalence should always be confirmed by a photometric layout.

Note : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.



JOB NAME: SPRINGFIELD PARK AND RIDE APEX LIGHTING SOLUTIONS WORKPLAN/CALC PLAN: 0 FINISHED GRADP MOUNTING HEIGHT: 20.5FT					
Luminaire Schedule					
Qty	Label	Arrangement	LLF	Lumens/Lamp	Description
8	A	SINGLE	0.833	N.A.	LMC6C SVM-32W32LED4K-R-IE3-UNV-DM3-WC10-RC-SF1-PH3-BR / MOUNTED TO LIVEPOLES 403-1-2020
16	B	RACK-RACK	0.833	N.A.	LMC6C SVM-24W16LED4K-R-IE3-UNV-DM3-WC10-RC-SF1-PH3-BR / MOUNTED TO LIVEPOLES 403-2-2020
Calculation Summary					
Label	Units	Avg	Max	Min	Avg/Min
CalcFts	Fc	0.19	2.5	0.0	N.A.
BEYOND PARKING LOT	Fc	0.06	2.3	0.0	N.A.
WITHIN PARKING LOT	Fc	0.91	2.5	0.2	4.55

GENERAL DISCLAIMER:

Calculations have been performed according to IES standards and good practice. Some differences between measured values and calculated results may occur due to tolerances in calculation methods, testing procedures, component performance, measurement techniques and field conditions such as voltage and temperature variations. Input data used to generate the attached calculations such as room dimensions, reflectances, furniture and architectural elements significantly affect the lighting calculations. If the real environment conditions do not match the input data, differences will occur between measured values and calculated values.

* LLF Determined Using Current Published Lamp Data

NOTE TO REVIEWER:

Total Light Loss Factor (LLF) applied at time of design is determined by applying the Lamp Lumen Depreciation (LLD) from current lamp manufacturer's catalog, a Luminaire Dirt Depreciation Factor (LDD) based on IES recommended values and a Ballast Factor (BF) from current ballast specification sheets. Application of an incorrect Light Loss Factor (LLF) will result in forecasts of performance that will not accurately depict actual results.

For proper comparison of photometric layouts, it is essential that you insist all designers use correct Light Loss Factors.



446 SMITH STREET
MIDDLETOWN, CT 06457
TELEPHONE: 860.632.8766
FACSIMILE: 860.632.8236
WWW.APEXLIGHTS.COM

PROJECT TITLE:

SPRINGFIELD PARK AND RIDE
SPRINGFIELD, VT

DRAWING TITLE:

SITE PHOTOMETRIC CALCULATION

SCALE: 1"=20'-0"

DATE: 2/18/15

DRAWN BY: RR

SHEET:

SL-1



1200 Elm Street
Unit 412
Manchester, NH 03101

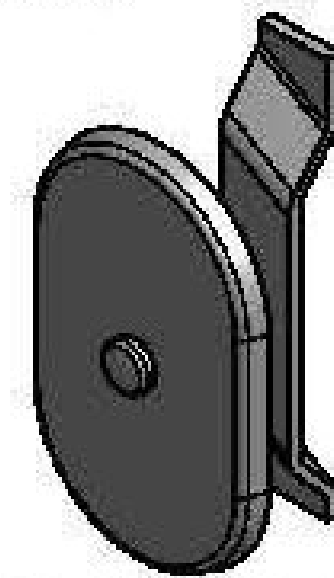
Phone: 877-886-2843
Fax: 877-886-2844

To: GRANITE CITY - BENNINGTON VT 14 MORSE ROAD BENNINGTON, VT 05201 Attn: MARK TIMMERMAN		Submittal Source Quote: SPFLDPRKAN Entry Date: 3/24/2015 Project: SPRINGFIELD PARK AND RIDE
Original Submittal for Approval 1 Copy of Submittals is Attached		
Type	Mfg	Description
A	Philips Lumec	SVM-32W32LED4K-R-LE3-UNIV-DMG-WC 10- RC-SP1-PH8-BR
A	Lytepoles	405-7015-18-YD-MODTENON-SSAB-IDTAG-CC
A	Lytepoles	405-7015-18-YD-GFI-MODTENON-SSAB-IDTAG-CC
B	Philips Lumec	SVM-24W16LED4K-R-LE3-UNIV-DMG-WC 10- RC-SP1-PH8-BR
B	Lytepoles	405-7015-18-YD-(2)GFI-(2)MODTENON-SSAB-IDTAG-CC

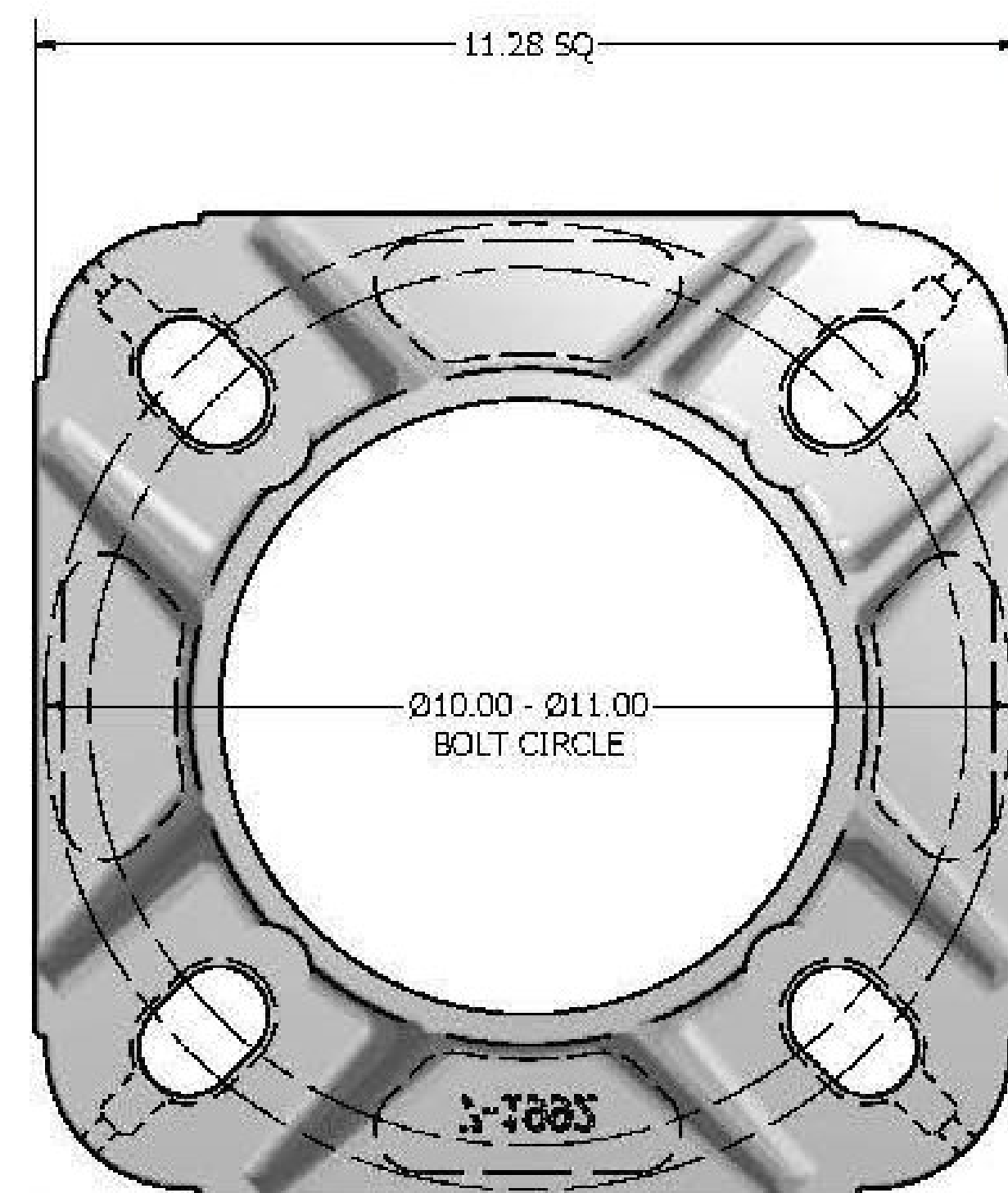
Remarks:

NO.	POLE SHAFT SPECIFICATIONS				
1.	SHAFTS ARE ONE SECTION DESIGN FABRICATED FROM 6063 T6 ALUMINUM EXTRUSION-SPUN TAPERED.				
2.	BASE CASTING IS 356 T6 ALUMINUM. THE SHAFT TELESOPES INTO THE BASE CASTING AND IS CIRCUMFERENTIALLY WELDED TOP AND BOTTOM.				
3.	ANCHOR BOLTS ARE "L" FORMED RODS HAVING A MINIMUM YIELD STRENGTH OF 55,000 P.S.I. FABRICATED FROM 304 STAINLESS STEEL AND FURNISHED COMPLETE WITH 2 HEX NUTS AND 2 FLAT WASHERS.				
4.	POLES SHALL HAVE A POLYESTER POWDER COAT CUSTOM COLOR (LUMEC BRONZE) FINISH.				
POLE DIMENSIONS					
POLE HGT (FT.)	TOP DIA. (IN.)	BOTTOM DIA. (IN.)	GAGE	MTG. HGT. (FT.)	
18'	4.50	7.00	0.156	20'	
BASE PLATE DIMENSIONS					
BOLT CIRCLE (IN.)	BASE PLATE DIM. (IN.)		BOLT HOLE (IN.)	PLATE THK. (IN.)	
10.00-11.00	11.28 SQ		1.13	1.00	
ANCHOR BOLT DIMENSIONS					
ANCHOR BOLT DIA. (IN.)			ANCHOR BOLT LENGTH (IN.)		
1.00			40.00		
ALLOWABLE WIND LOADING (SQ. FT.)					
WIND*	INDICATED EPA	80 MPH	90 MPH	100 MPH	120 MPH
EPA	-	17.7	13.6	10.8	6.9

*1994 AASHTO LTS-3 (1.3 GUST FACTOR)

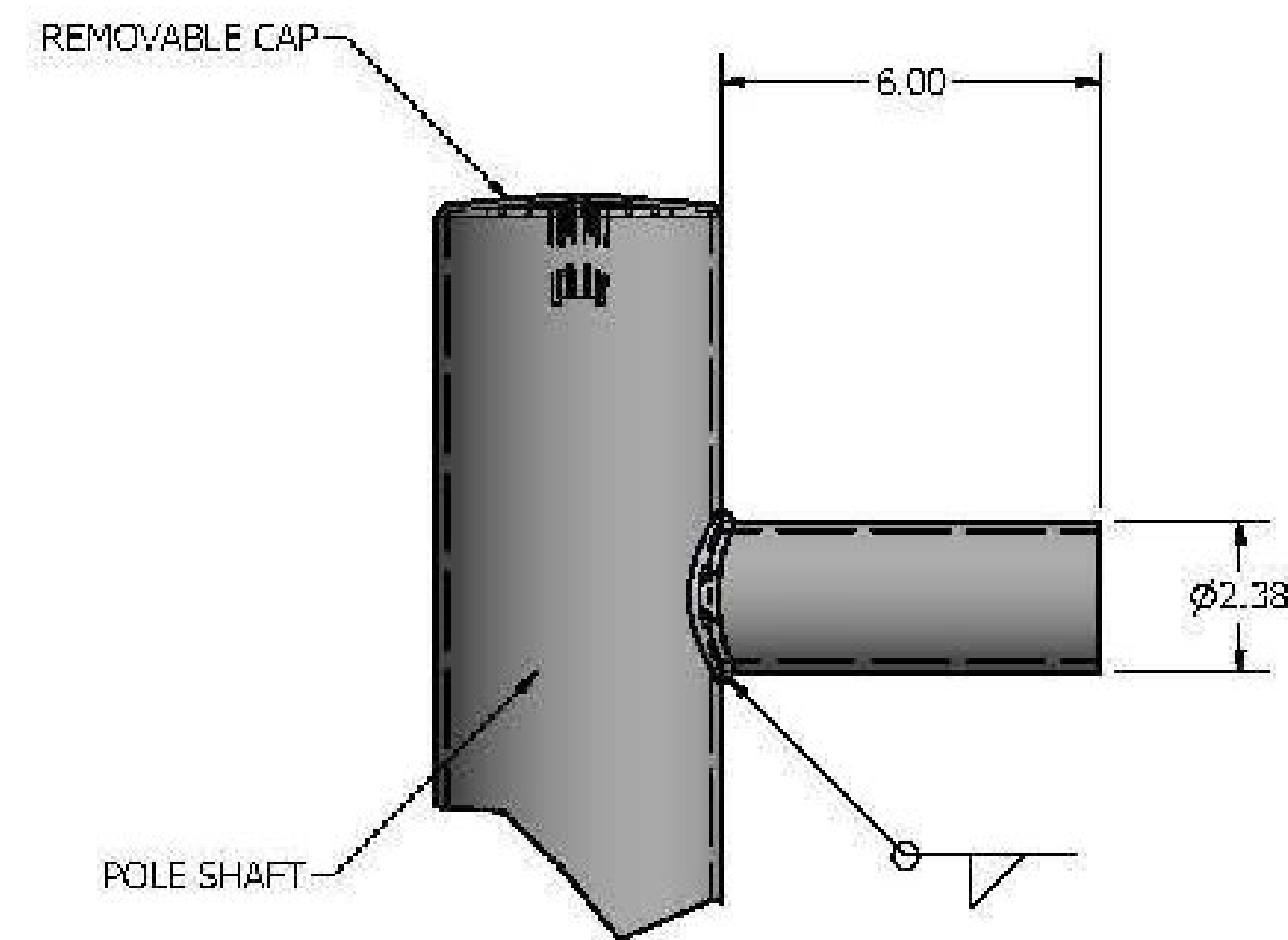


3.00 X 5.00 HAND HOLE COVER

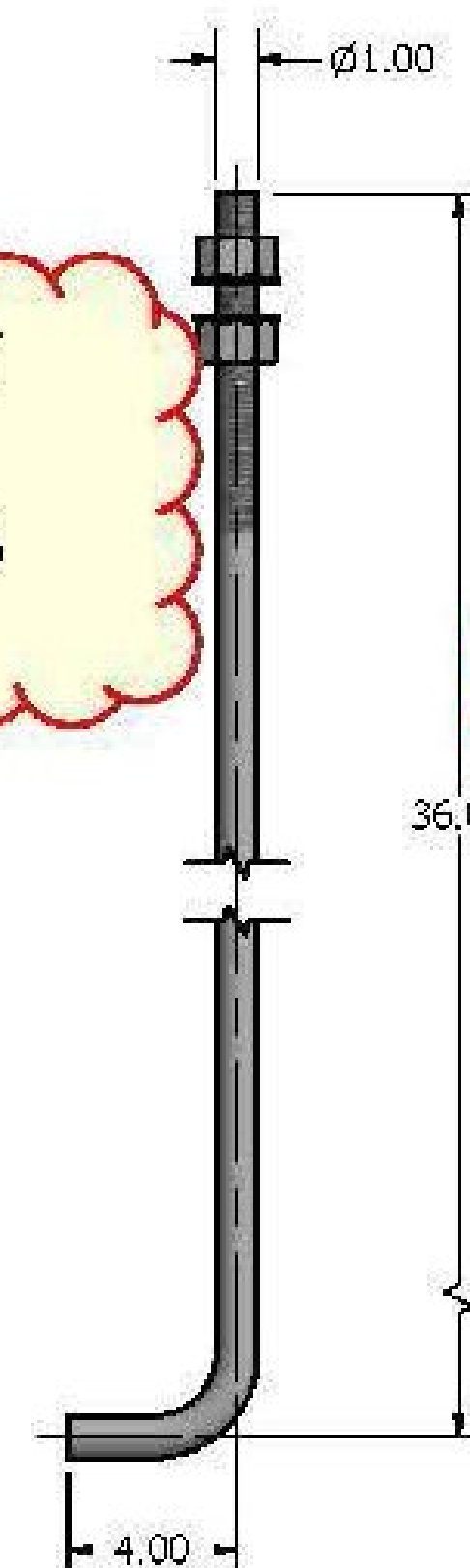


11.28 X 11.28 X 3.38 THK BASE CASTING

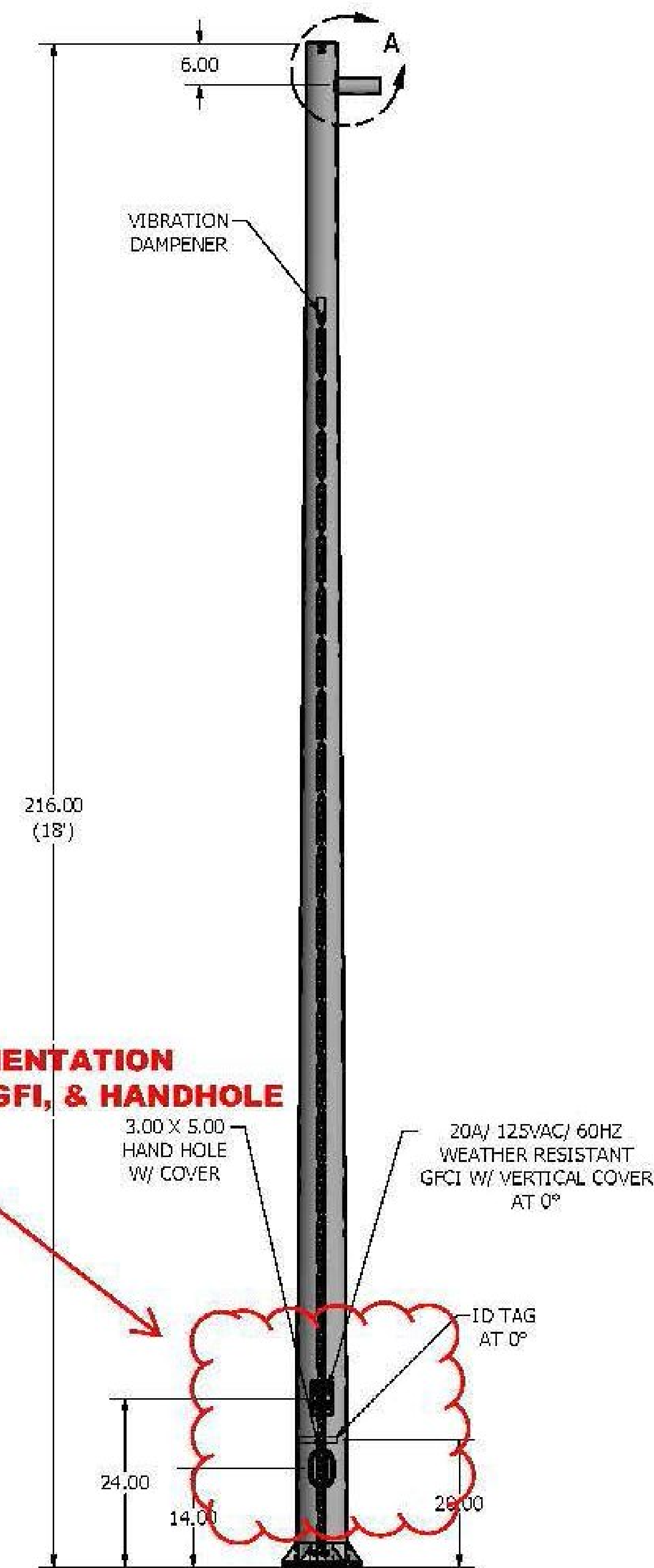
QTY OF (6) ON THE PROJECT
TYPES SL9, SL10, SL11, SL12,
SL13, SL14



DETAIL A
MODTENON DETAIL VIEW



Ø1.00 X 40.00 ANCHOR BOLT
(STAINLESS STEEL)



POLE DETAIL

lyte

poles

a DWM company

P.O. Box 340

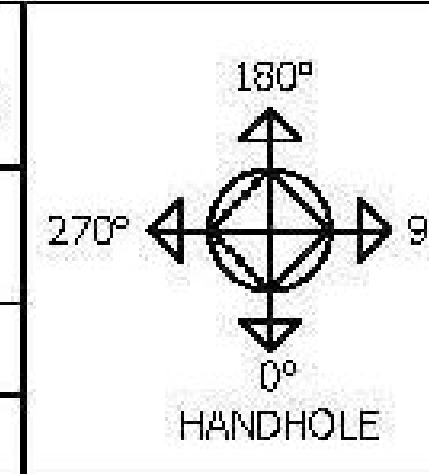
Eastpointe, MI 48021

P: (586) 771-4610 | F: (586) 771-5527

www.lytepoles.com

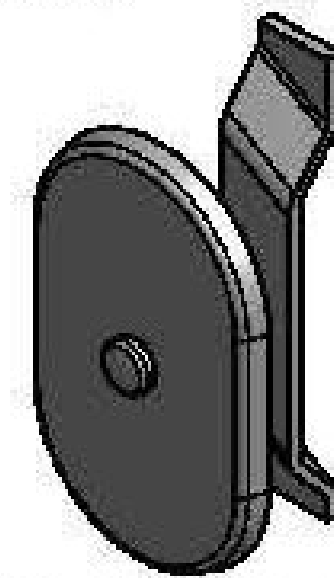
DRAWN: S. HARVALA	3/24/2015
CHECKED:	
REVISION:	DATE:
APPROVED:	
QUOTE: 1403642	
S.O.#	
REF:	SCALE: NONE

SOME GEOGRAPHICAL AREAS HAVE SPECIAL WIND CONDITIONS THAT CAN CREATE WIND INDUCED VIBRATIONS CAUSING A FATIGUE PROBLEM. NO METHOD HAS YET BEEN FOUND FOR PREDICTING DESTRUCTIVE LIGHTING POLE VIBRATION. THESE CONDITIONS ARE UNIQUE AND CANNOT BE GUARANTEED AGAINST, AND ARE THE RESPONSIBILITY OF A LOCAL SITE ENGINEER.		
TITLE: SPRINGFIELD, VT PARK & RIDE		
CATALOG: 405-7015-18-VD-GFI-MODTENON-SSAB-IDTAG-CC		
DWG NO: SD-7119	SIZE C	SHEET 1 OF 1

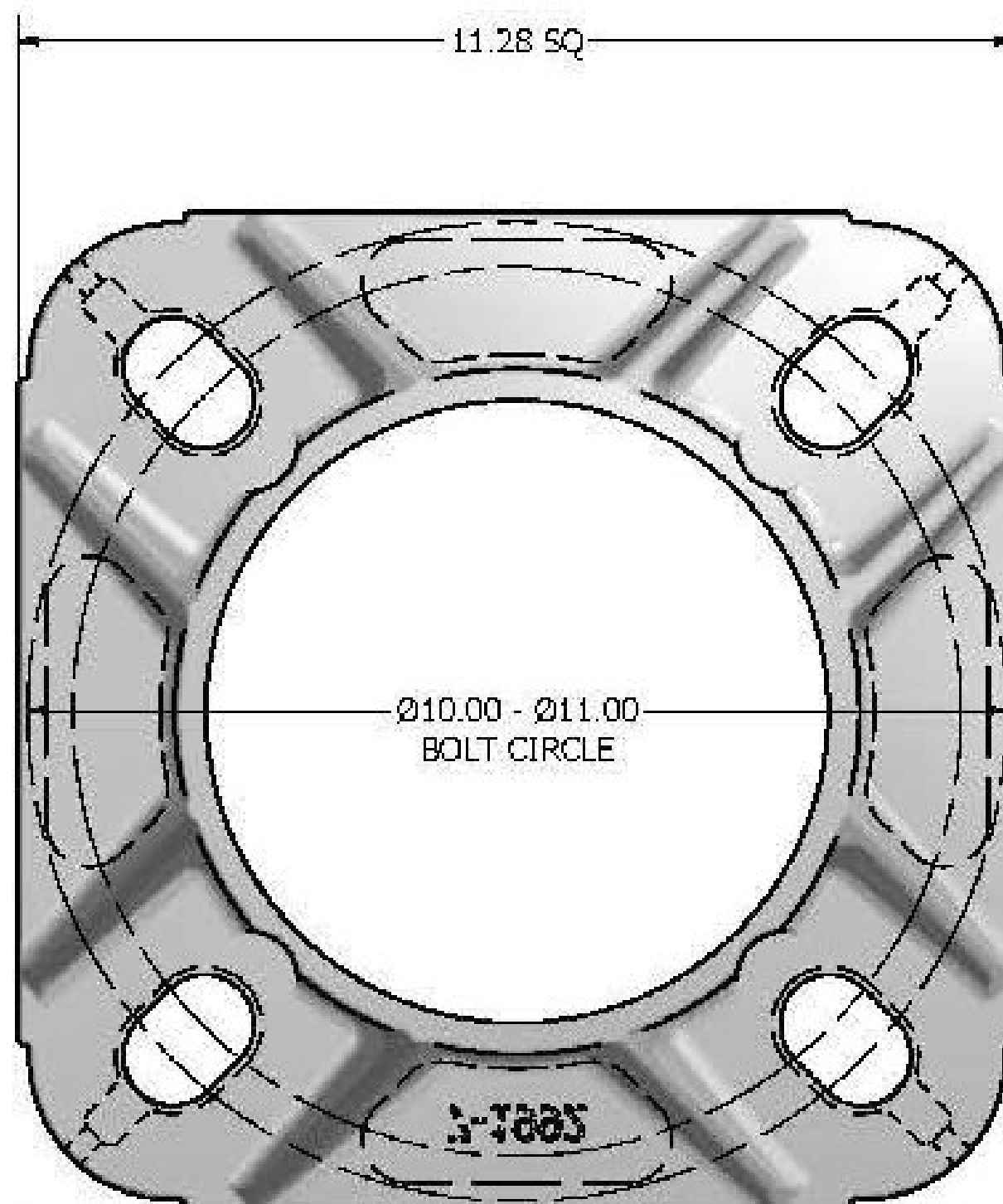


NO.	POLE SHAFT SPECIFICATIONS				
1.	SHAFTS ARE ONE SECTION DESIGN FABRICATED FROM 6063 T6 ALUMINUM EXTRUSION-SPUN TAPERED.				
2.	BASE CASTING IS 356 T6 ALUMINUM. THE SHAFT TELESOPES INTO THE BASE CASTING AND IS CIRCUMFERENTIALLY WELDED TOP AND BOTTOM.				
3.	ANCHOR BOLTS ARE "L" FORMED RODS HAVING A MINIMUM YIELD STRENGTH OF 55,000 P.S.I. FABRICATED FROM 304 STAINLESS STEEL AND FURNISHED COMPLETE WITH 2 HEX NUTS AND 2 FLAT WASHERS.				
D 4.	POLES SHALL HAVE A POLYESTER POWDER COAT CUSTOM COLOR (LUMEC BRONZE) FINISH.				
POLE DIMENSIONS					
POLE HGT. (FT.)		TOP DIA. (IN.)		BOTTOM DIA. (IN.)	
18'		4.50		7.00	
				GAGE	
				0.156	
				MTG. HGT. (FT.)	
				20'	
BASE PLATE DIMENSIONS					
BOLT CIRCLE (IN.)		BASE PLATE DIM. (IN.)		BOLT HOLE (IN.)	
10.00-11.00		11.28 SQ		1.13	
				PLATE THK. (IN.)	
				1.00	
ANCHOR BOLT DIMENSIONS					
ANCHOR BOLT DIA. (IN.)			ANCHOR BOLT LENGTH (IN.)		
1.00			40.00		
ALLOWABLE WIND LOADING (SQ. FT.)					
WIND*		INDICATED EPA		80 MPH	
EPA		-		90 MPH	
		17.7		100 MPH	
		13.6		120 MPH	
		10.8		6.9	

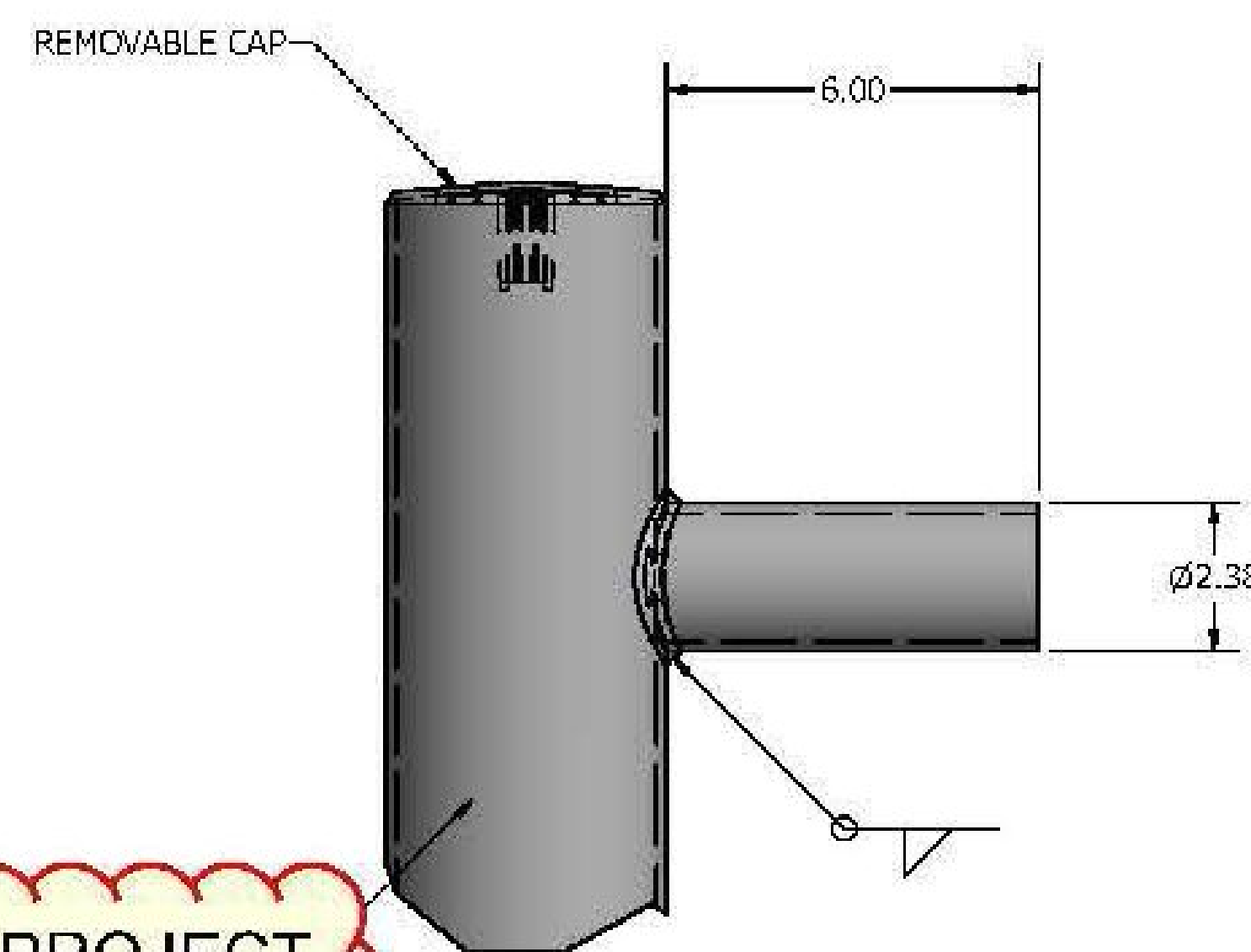
*1994 AASHTO LTS-3 (1.3 GUST FACTOR)



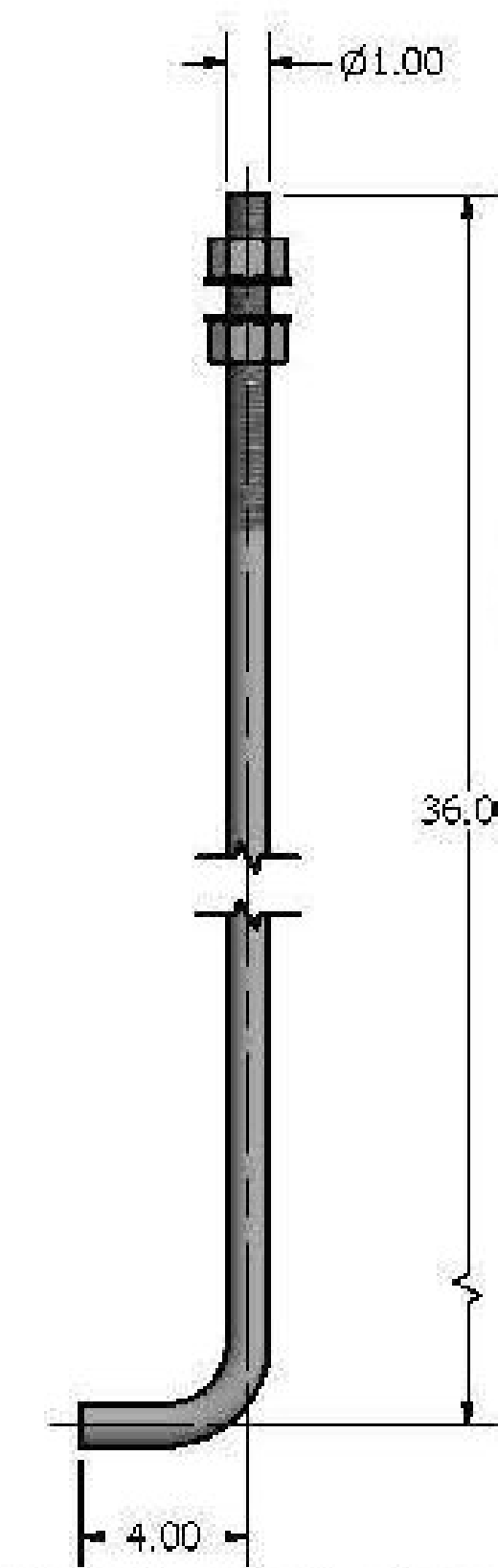
QTY OF (2) ON THE PROJECT
TYPES SL7 & SL8



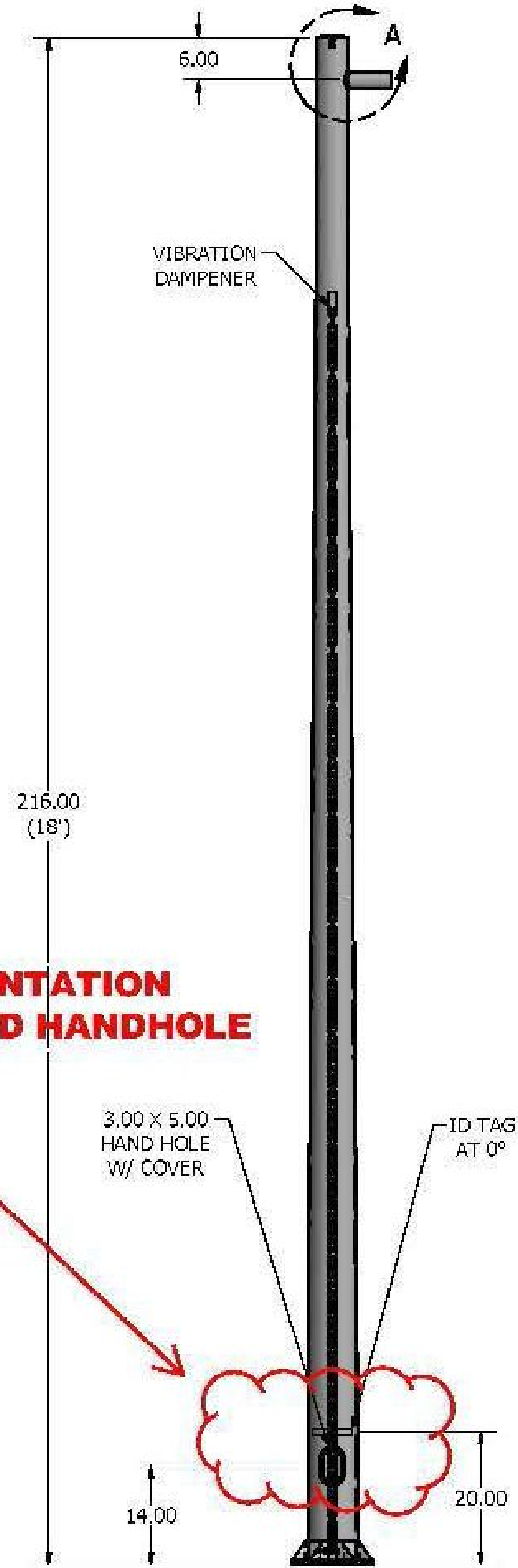
11.28 X 11.28 X 3.38 THK BASE CASTING



DETAIL A
MODTENON DETAIL VIEW



Ø1.00 X 40.00 ANCHOR BOLT
(STAINLESS STEEL)



POLE DETAIL

CONFIRM ORIENTATION
OF ID TAGS AND HANDHOLE

lyte

poles

a DWM company

P.O. Box 340

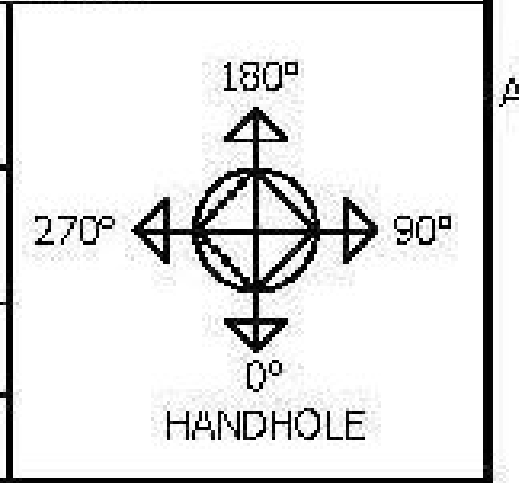
Eastpointe, MI 48021

P: (586) 771-4610 | F: (586) 771-5527

www.lytepoles.com

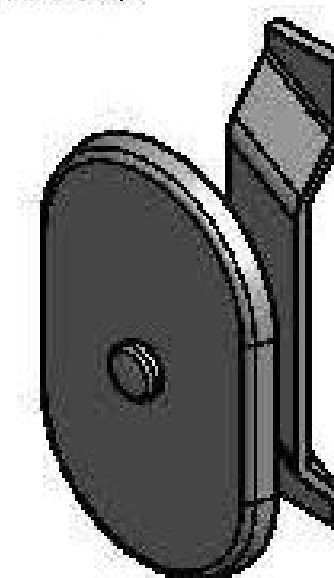
DRAWN:	S. HARVALA	3/24/2015
CHECKED:		
REVISION:		DATE:
APPROVED:		
QUOTE:	1403642	
S.O.#		
REF:		SCALE: NONE

SOME GEOGRAPHICAL AREAS HAVE SPECIAL WIND CONDITIONS THAT CAN CREATE WIND INDUCED VIBRATIONS CAUSING A FATIGUE PROBLEM. NO METHOD HAS YET BEEN FOUND FOR PREDICTING DESTRUCTIVE LIGHTING POLE VIBRATION. THESE CONDITIONS ARE UNIQUE AND CANNOT BE GUARANTEED AGAINST, AND ARE THE RESPONSIBILITY OF A LOCAL SITE ENGINEER.		
TITLE: SPRINGFIELD, VT PARK & RIDE		
CATALOG: 405-7015-18-VD-MODTENON-SSAB-IDTAG-CC		
DWG NO: SD-7118	SIZE C	SHEET 1 OF 1



NO.	POLE SHAFT SPECIFICATIONS				
1.	SHAFTS ARE ONE SECTION DESIGN FABRICATED FROM 6063 T6 ALUMINUM EXTRUSION-SPUN TAPERED.				
2.	BASE CASTING IS 356 T6 ALUMINUM. THE SHAFT TELESOPES INTO THE BASE CASTING AND IS CIRCUMFERENTIALLY WELDED TOP AND BOTTOM.				
3.	ANCHOR BOLTS ARE "L" FORMED RODS HAVING A MINIMUM YIELD STRENGTH OF 55,000 P.S.I. FABRICATED FROM 304 STAINLESS STEEL AND FURNISHED COMPLETE WITH 2 HEX NUTS AND 2 FLAT WASHERS.				
4.	POLES SHALL HAVE A POLYESTER POWDER COAT CUSTOM COLOR (LUMEC BRONZE) FINISH.				
POLE DIMENSIONS					
POLE HGT (FT.)	TOP DIA. (IN.)	BOTTOM DIA. (IN.)	GAGE	MTG. HGT. (FT.)	
18'	4.50	7.00	0.156	20'	
BASE PLATE DIMENSIONS					
BOLT CIRCLE (IN.)	BASE PLATE DIM. (IN.)		BOLT HOLE (IN.)	PLATE THK. (IN.)	
10.00-11.00	11.28 SQ		1.13	1.00	
ANCHOR BOLT DIMENSIONS					
ANCHOR BOLT DIA. (IN.)		ANCHOR BOLT LENGTH (IN.)			
1.00		40.00			
ALLOWABLE WIND LOADING (SQ. FT.)					
WIND*	INDICATED EPA	80 MPH	90 MPH	100 MPH	120 MPH
EPA	-	17.7	13.6	10.8	6.9

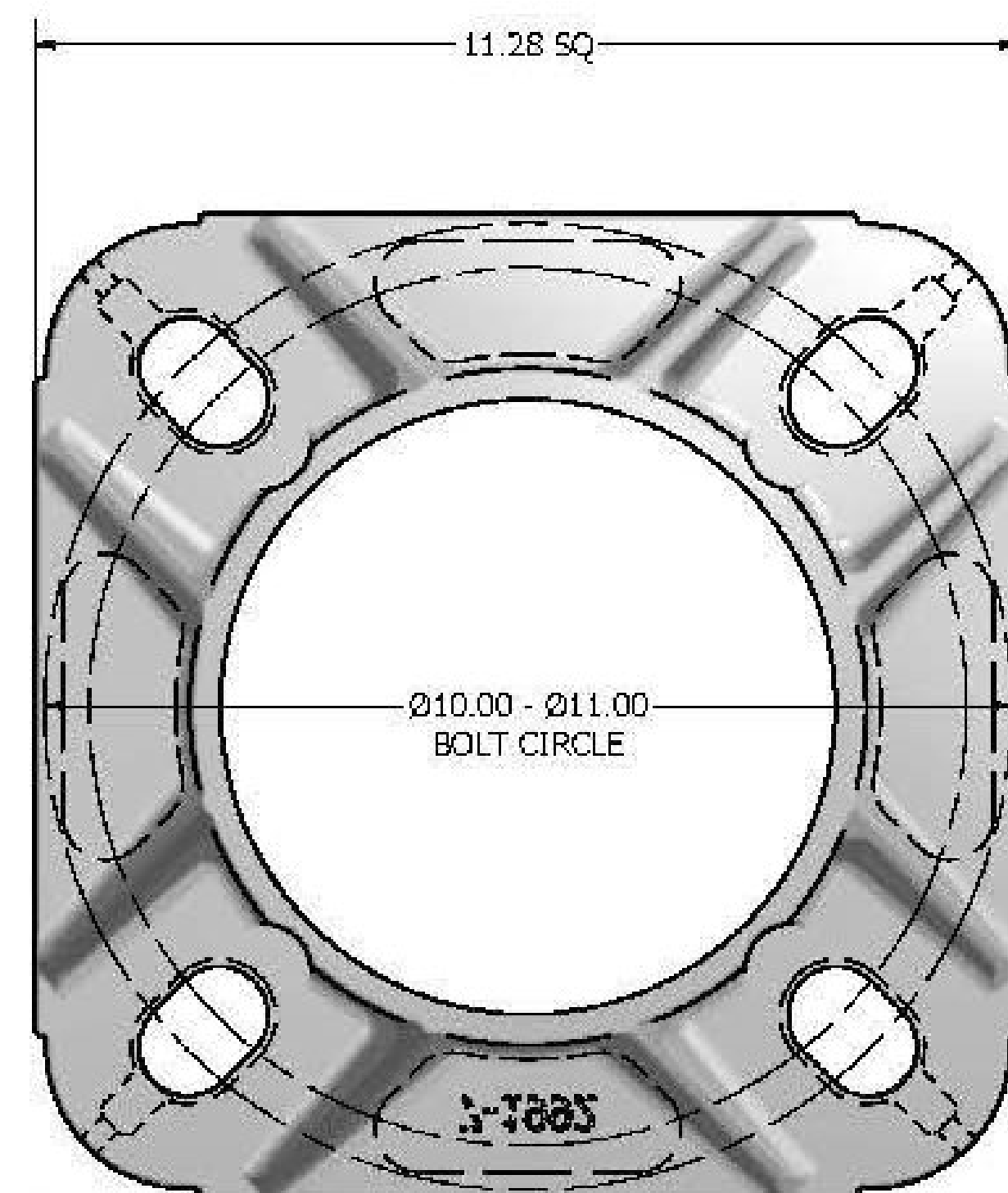
*1994 AASHTO LTS-3 (1.3 GUST FACTOR)



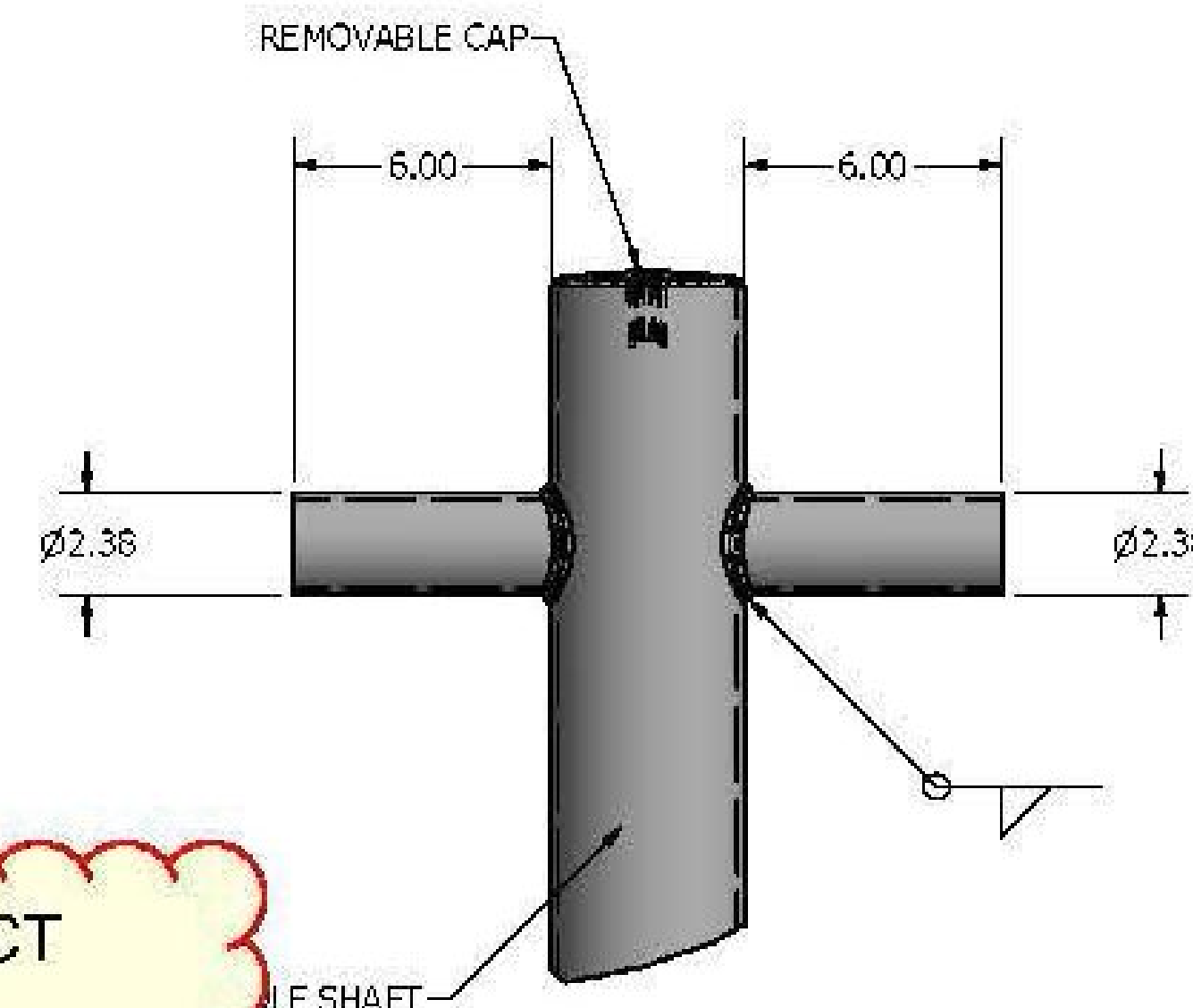
QTY OF (6) ON PROJECT

TYPES SL1, SL2, SL3, SL4, SL5, SL6

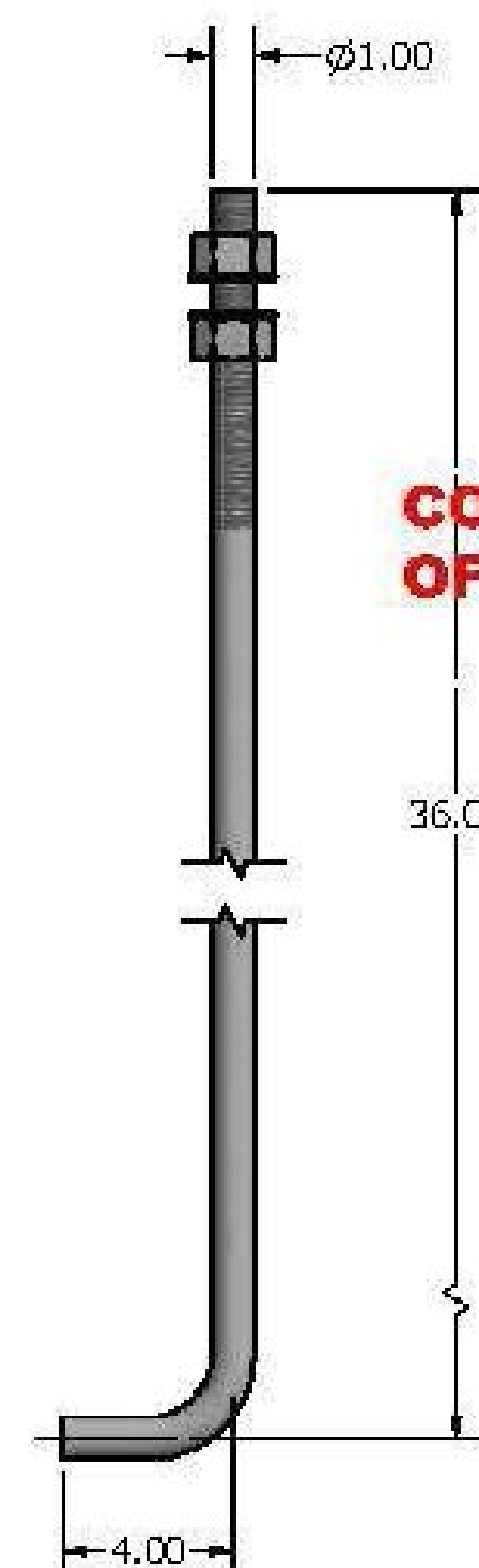
3.00 X 5.00 HAND HOLE COVER



11.28 X 11.28 X 3.38 THK BASE CASTING

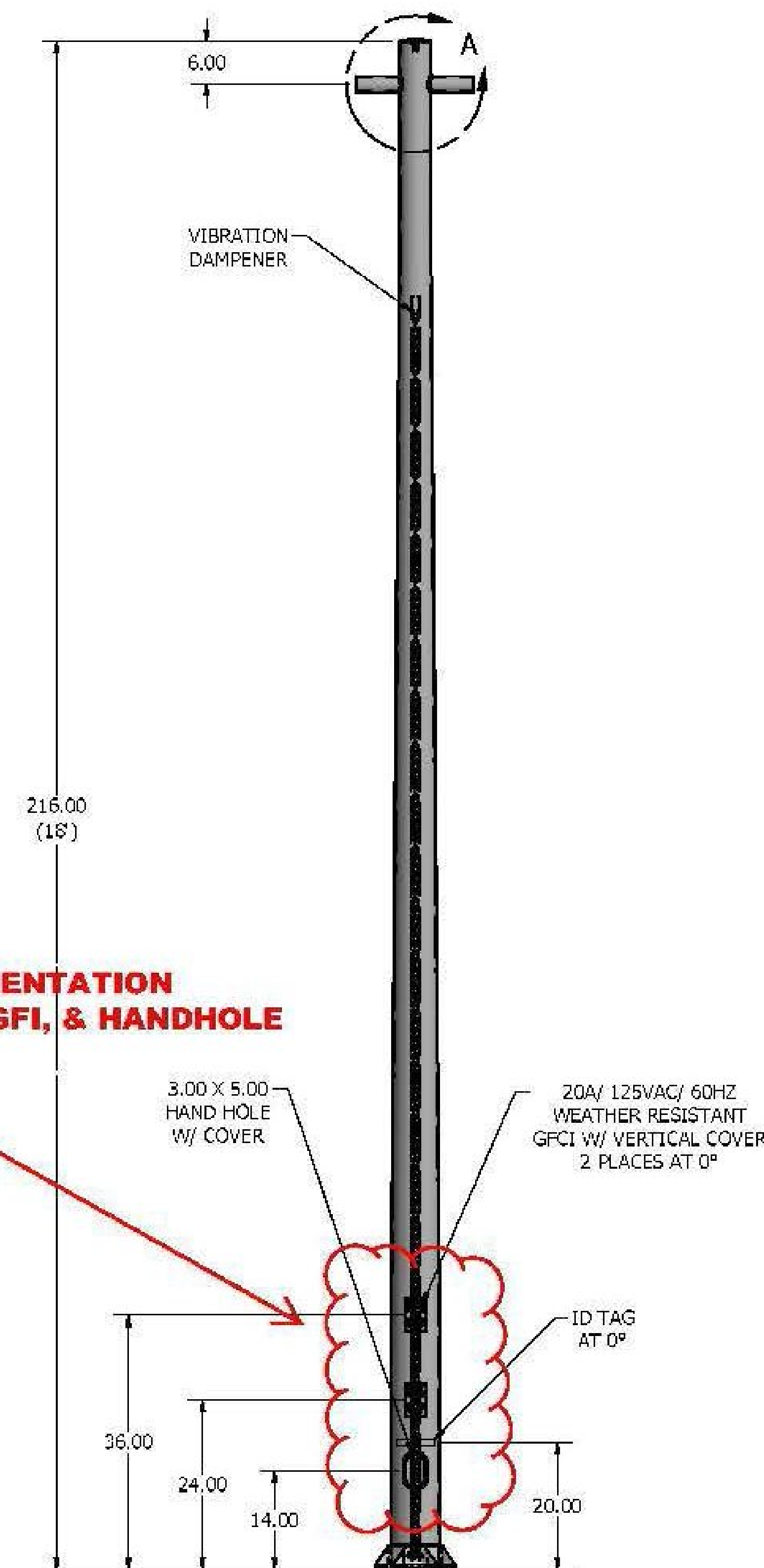


DETAIL A
(2) MODTENON DETAIL VIEW



Ø1.00 X 40.00 ANCHOR BOLT
(STAINLESS STEEL)

CONFIRM ORIENTATION
OF ID TAGS, GFI, & HANDHOLE



POLE DETAIL

lyte

poles

a DWM company

P.O. Box 340

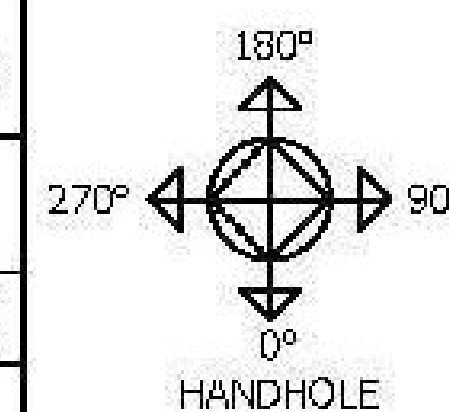
Eastpointe, MI 48021

P: (586) 771-4610 | F: (586) 771-5527

www.lytepoles.com

DRAWN:	S. HARVALA	3/24/2015
CHECKED:		
REVISION:		DATE:
APPROVED:		
QUOTE:	1403642	
S.O.#		
REF:		SCALE: NONE

SOME GEOGRAPHICAL AREAS HAVE SPECIAL WIND CONDITIONS THAT CAN CREATE WIND INDUCED VIBRATIONS CAUSING A FATIGUE PROBLEM. NO METHOD HAS YET BEEN FOUND FOR PREDICTING DESTRUCTIVE LIGHTING POLE VIBRATION. THESE CONDITIONS ARE UNIQUE AND CANNOT BE GUARANTEED AGAINST, AND ARE THE RESPONSIBILITY OF A LOCAL CIVIL ENGINEER.		
TITLE:	SPRINGFIELD, VT PARK & RIDE	
CATALOG:	405-7015-18-VD-(2)GFI-(2)MODTENON-SSAB-IDTAG-CC	
DWG NO:	SD-7120	SIZE C
		SHEET 1 OF 1

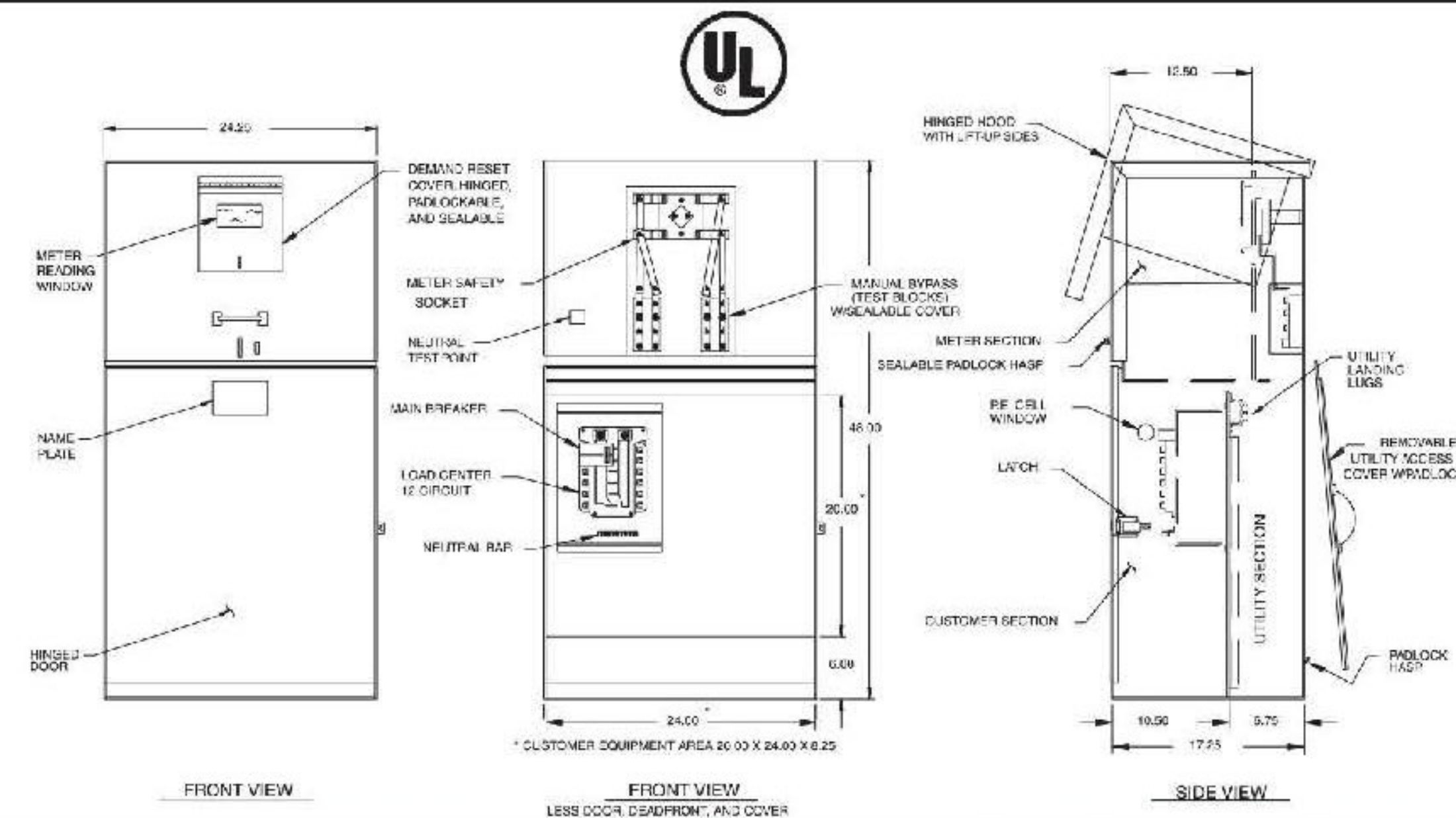




MEUG24-S

(formerly MEUGLD-S)
Caltrans Type III-BF

Designed to supply metered power to remote locations.
Typical applications included parking lot lighting, pump stations, and street lighting.



STANDARD FEATURES

- Standard voltage 120/240V 1Ø 3W.
- Meter Socket: 4 jaw, 100 amps or 200 amps.
- Meter socket with test blocks.
- 12 circuit copper bussed interior.
- Main Breaker: 100 amp or 200 amp, 10k AIC
- Utility Landing Lugs: 200 amps, 250 kcmil.
- Utility test section.
- Vandal-resistant side hinged door and dead front.
- Light green powder coat finish in accordance with ASTM B-117.

OPTIONAL FEATURES

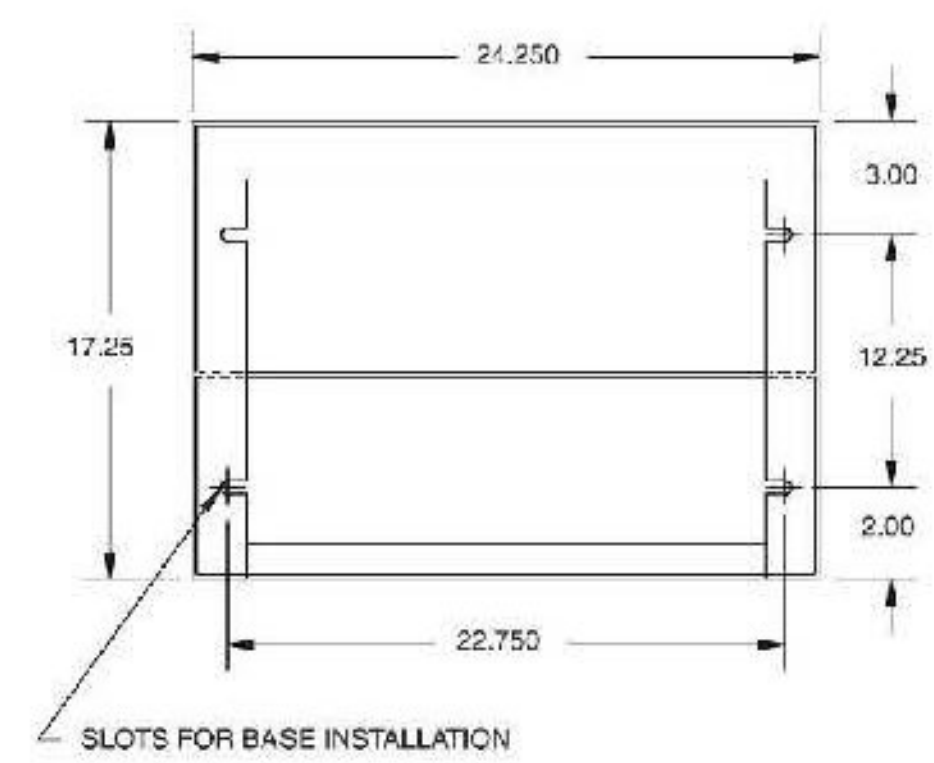
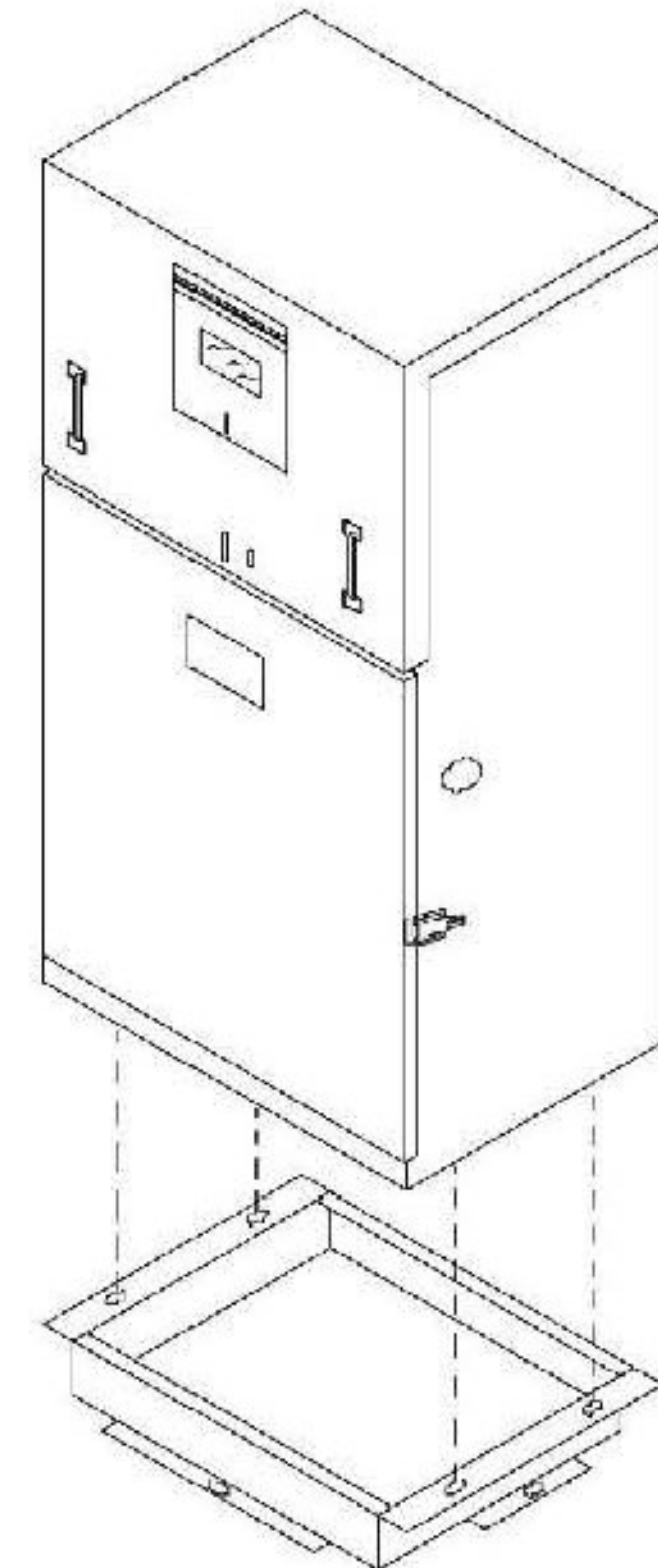
- Maximum voltage 480Y/277V 3Ø 4W (may affect optional equipment).
- 12 circuit interior may be increased to 30 circuit.
- Higher AIC available upon request.
- P.E. cell, test switch, lighting relay may be added to standard.
- Some equipment modifications available. Consult your factory representative.
- Meter Socket: 5 or 7 jaw, 100 amps or 200 amps.
- Aluminum and stainless steel cabinet
- Uni-body construction available in steel, stainless steel, and aluminum.
- Custom colors available.
- Pad Mounting Base available for concrete foundation. Order separately - MEUG24-BASE.
- Anchor Bolts, 5/8" dia. or 1/2" dia. Order separately (quantity 4).

SPECIFICATIONS

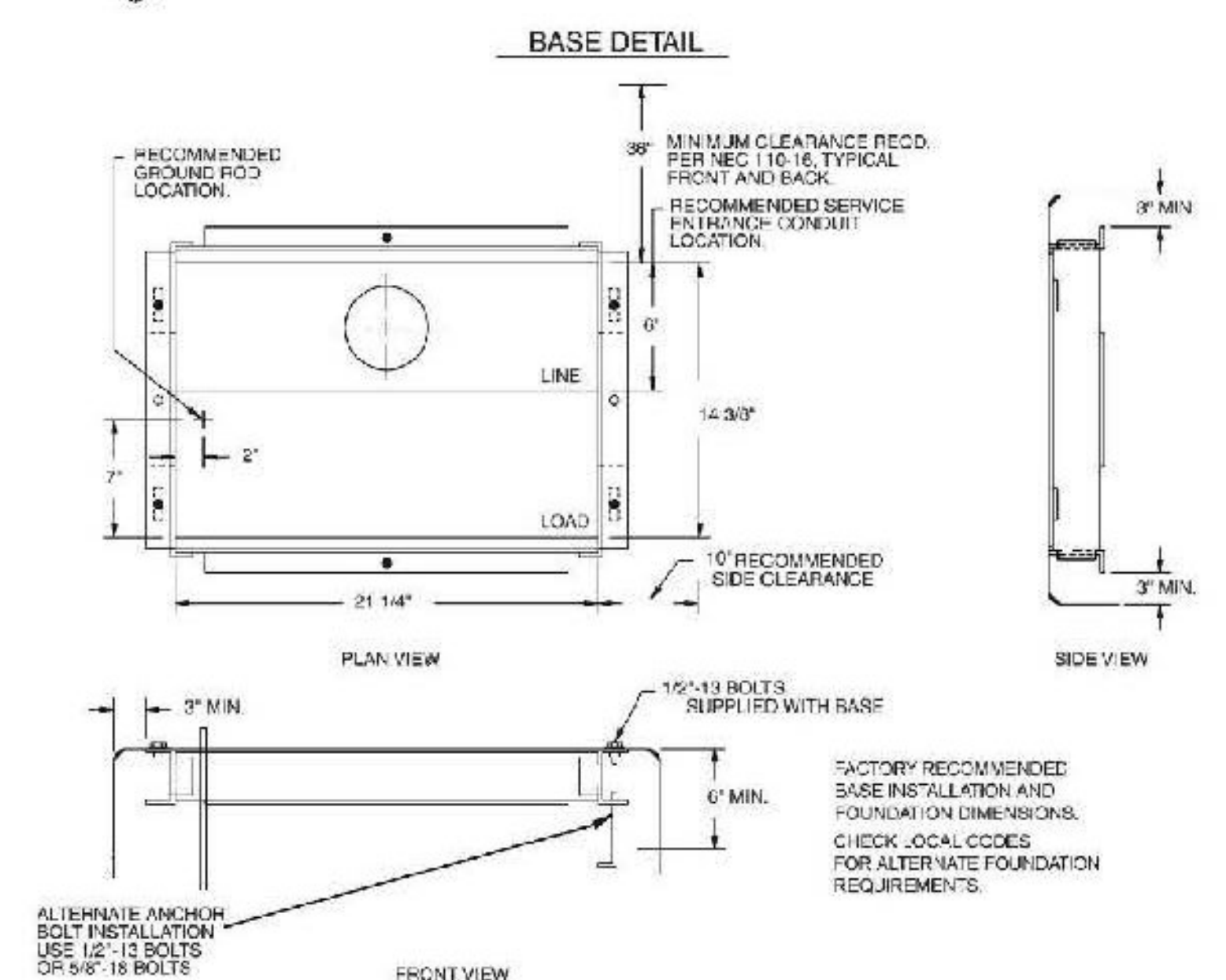
- 12-gauge corrosion-resistant zinc-coated steel construction. Hood and covers 14-gauge.
- Rainproof Type 3R enclosure.
- Complies with Caltrans specification ES-2E.
- Meets EUSERC 308 requirements.
- All factory wiring is 600 volt rated copper.
- Acceptable circuit breakers are GE, ITE, Crouse-Hinds/Murray, Cutler-Hammer.
- Suitable for use without main when no more than six service disconnects are installed and used in accordance with article 384 of the NEC.
- Listed by Underwriters Laboratories, Inc.



Standard Model <i>Custom Configurations also available. Consult your factory representative.</i>	Catalog No.	Amps	Voltage	Main	AIC Rating
	MEUG24-S-M100	100	120/240	100A	10,000
	<i>For aluminum enclosure, order MEUG24A- For stainless steel enclosure, order MEUG24X-</i>				



BOTTOM VIEW
MOUNTING SLOT DETAIL



980 QUAKER HIGHWAY (146A) ■ UXBRIDGE, MA ■ 01569
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