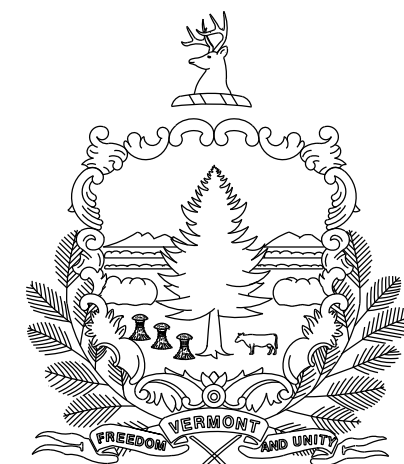


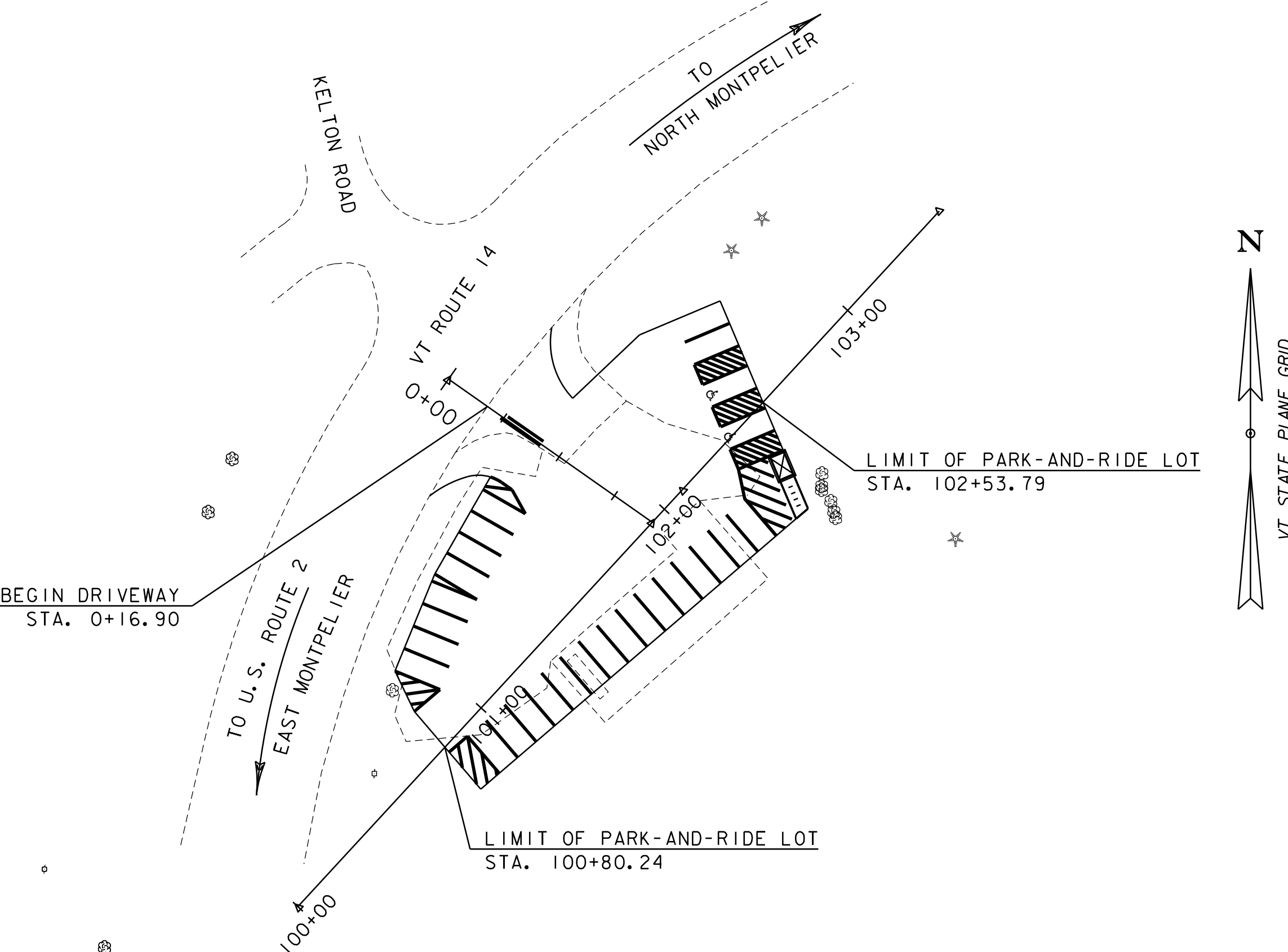
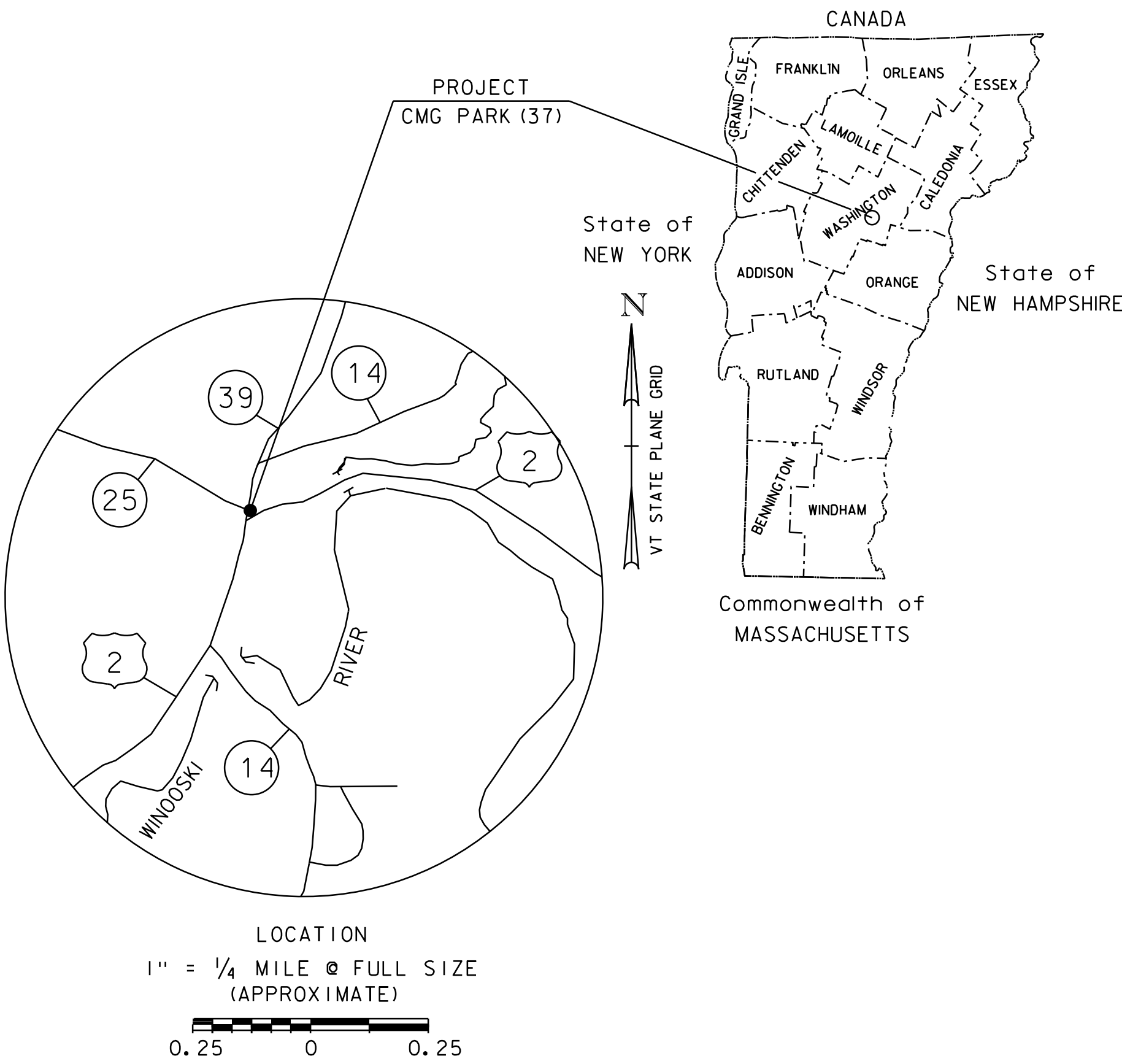
STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
TOWN OF EAST MONTPELIER
COUNTY OF WASHINGTON
COMMUTER PARK-AND-RIDE LOT

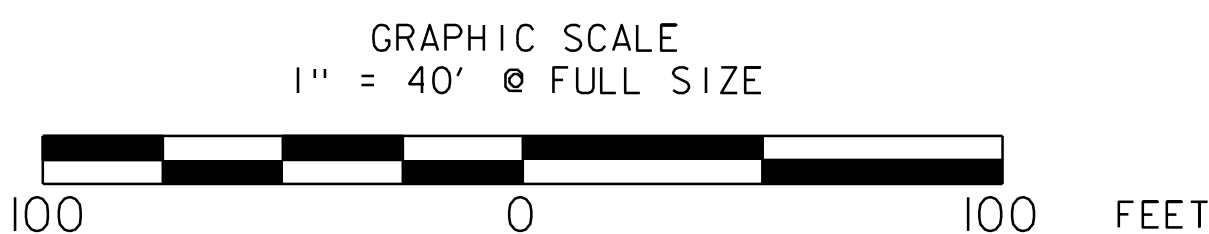
THIS PROJECT IS LOCATED ON THE EAST SIDE OF VT ROUTE 14 IN THE TOWN OF
EAST MONTPELIER NEAR THE INTERSECTION OF VT ROUTE 14 AND U.S. ROUTE 2

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES CONSTRUCTION OF A NEW PARK-AND-RIDE LOT
WITH 27 SPACES, CONSTRUCTING A BUS SHELTER, SIGNING, PAVEMENT MARKINGS, LIGHTING AND OTHER
HIGHWAY RELATED ITEMS.



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 : VT SURVEY & ENGINEERING	
SURVEYED DATE : 3/12	
DATUM	
VERTICAL	NAVD 88 FT
HORIZONTAL	NAD 83 (CORS) SPC (4400 VT) SFT



FINAL PLANS
3/28/2016

 Stantec Consulting Services Inc. 55 Green Mountain Drive South Burlington VT U.S.A. 05403 Phone: (802) 864-0223 Fax: (802) 864-0165 www.stantec.com	DIRECTOR OF PROJECT DELIVERY
	APPROVED _____ DATE _____
	PROJECT MANAGER : WAYNE L. DAVIS
	PROJECT NAME : E. MONTPELIER PARK-AND-RIDE PROJECT NUMBER : CMG PARK (37)
SHEET 1 OF 37 SHEETS	

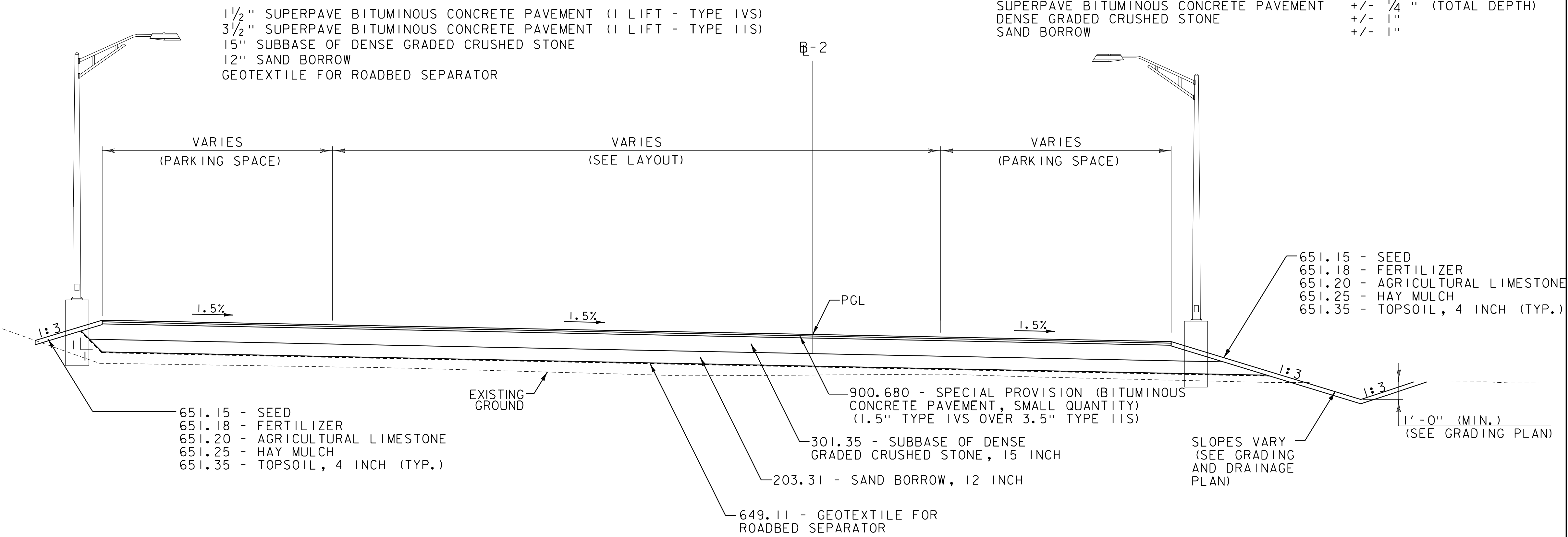
INDEX OF SHEETS

- 1 TITLE SHEET
- 2 TYPICAL SECTIONS SHEET
- 3 DETAILS SHEET
- 4-7 BUS SHELTER DETAIL SHEETS
- 8-9 QUANTITY SHEETS
- 10 CONVENTIONAL SYMBOLLOGY & LEGEND SHEET
- 11 PROJECT TIE SHEET
- 12 EARTHWORKS SHEET
- 13 ROW DETAIL SHEET
- 14 ROW PLAN
- 15 LAYOUT PLAN
- 16 PROFILE SHEET
- 17 GRADING AND DRAINAGE PLAN
- 18 TRAFFIC SIGNS & PAVEMENT MARKINGS PLAN
- 19 TRAFFIC SIGN SUMMARY SHEET
- 20 TRAFFIC SIGN DETAIL SHEET
- 21 LIGHTING AND PHOTOMETRIC PLAN
- 22-24 LIGHTING DETAIL SHEETS
- 25 CONSTRUCTION APPROACH SIGNING
- 26 EPSC NARRATIVE
- 27 EPSC EXISTING CONDITIONS SITE PLAN
- 28 EPSC CONSTRUCTION SITE PLAN
- 29 EPSC FINAL CONDITIONS SITE PLAN
- 30-31 EPSC DETAIL SHEETS
- 32-37 CROSS SECTION SHEETS

INDEX OF STANDARDS

B-5	06-01-1994
B-71	07-08-2005
D-20	03-03-2003
E-121	08-08-1995
E-132	08-18-1995
E-143	06-15-2004
E-144	03-29-1999
E-146	09-20-1995
E-173	08-09-1995
E-175	06-08-2009
E-191	02-01-1999
E-192	10-12-2000
E-193	08-18-1995
T-1	08-06-2012
T-10	08-06-2012
T-28	08-06-2012
T-29	08-06-2012
T-30	08-06-2012
T-45	01-02-2013
T-133	12-21-2015

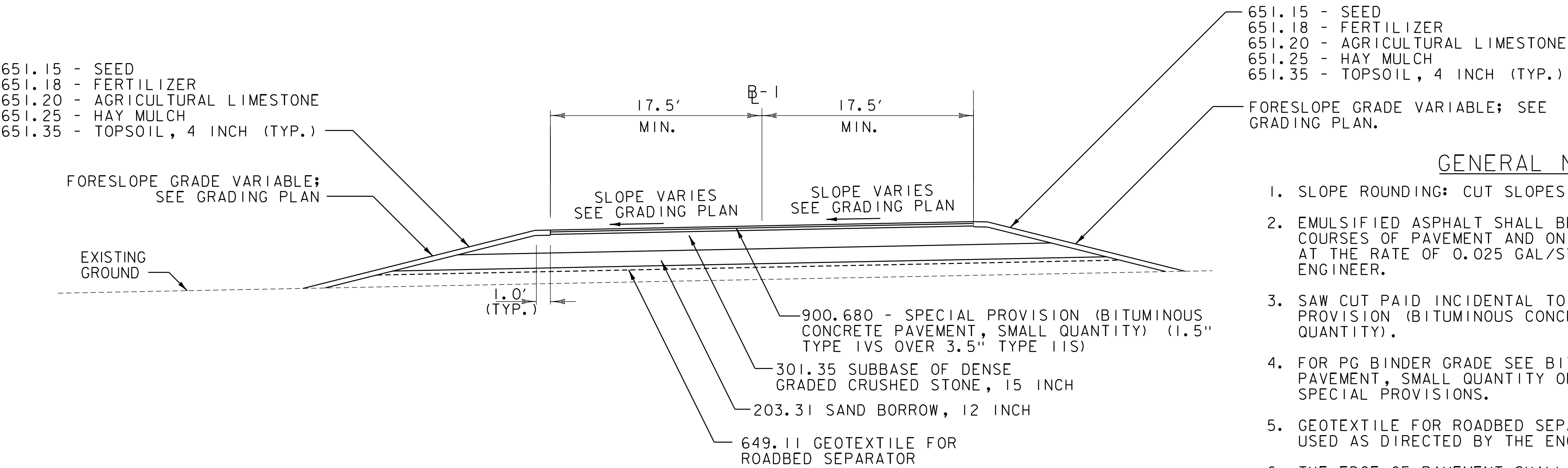
TYPICAL SECTIONS



MATERIAL ITEM THICKNESS / TOLERANCE

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

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



GENERAL NOTES

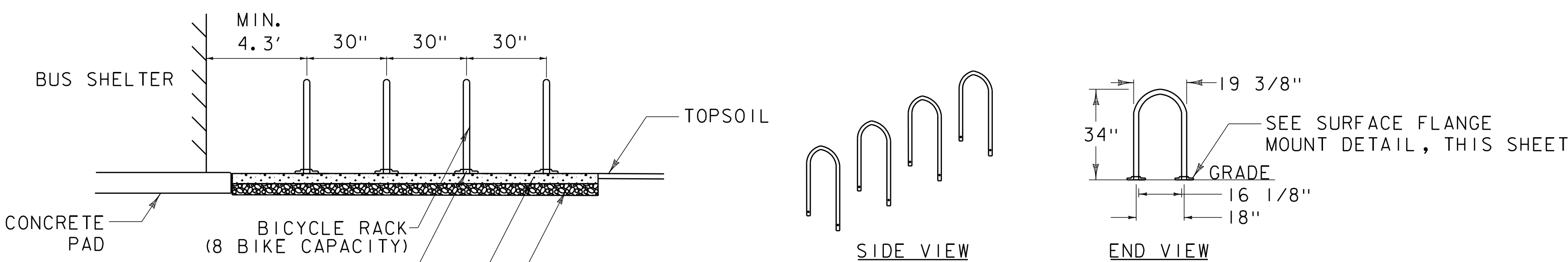
1. SLOPE ROUNDING: CUT SLOPES WILL NOT BE ROUNDED.
2. EMULSIFIED ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF PAVEMENT AND ON ALL COLD PLANED SURFACES AT THE RATE OF 0.025 GAL/SY OR AS DIRECTED BY THE ENGINEER.
3. SAW CUT PAID INCIDENTAL TO ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY).
4. FOR PG BINDER GRADE SEE BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY OF SECTION 900 OF THE SPECIAL PROVISIONS.
5. GEOTEXTILE FOR ROADBED SEPARATOR TO BE USED AS DIRECTED BY THE ENGINEER.
6. THE EDGE OF PAVEMENT SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE 30 TO 35 DEGREE ANGLE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED. SEE SAFETY EDGE DETAIL ON DETAILS SHEET.

PARK-AND-RIDE DRIVEWAY ENTRANCE TYPICAL SECTION (ALONG BASELINE 1)
NOT TO SCALE

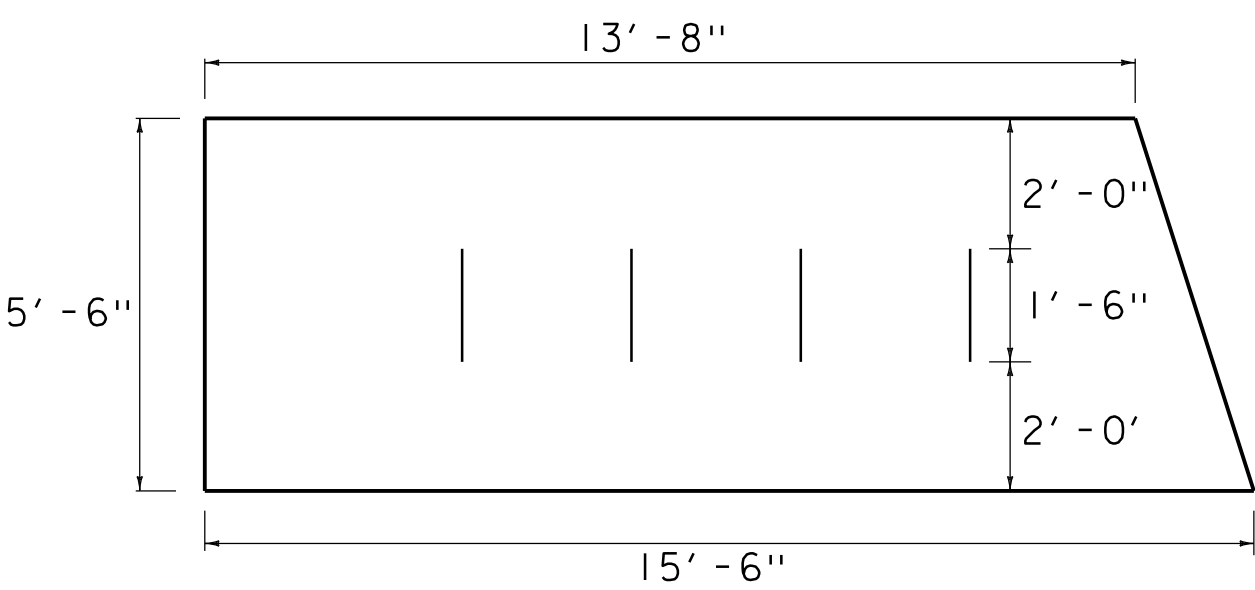
1 1/2" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (1 LIFT - TYPE IVS)
3 1/2" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (1 LIFT - TYPE IIS)
15" SUBBASE OF DENSE GRADED CRUSHED STONE
12" SAND BORROW
GEOTEXTILE FOR ROADBED SEPARATOR



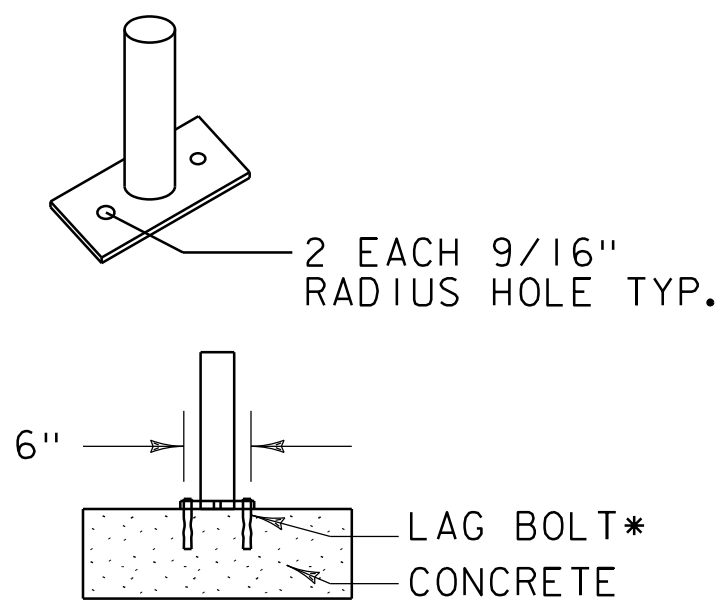
PROJECT NAME:	EAST MONTEPELIER PARK-AND-RIDE
PROJECT NUMBER:	CMG PARK(37)
FILE NAME: ...drawing\zllk350+yp.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: STANTEC
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
TYPICAL SECTIONS SHEET	SHEET 2 OF 37



SPECIAL PROVISION (BICYCLE RACK) DETAIL
NOT TO SCALE



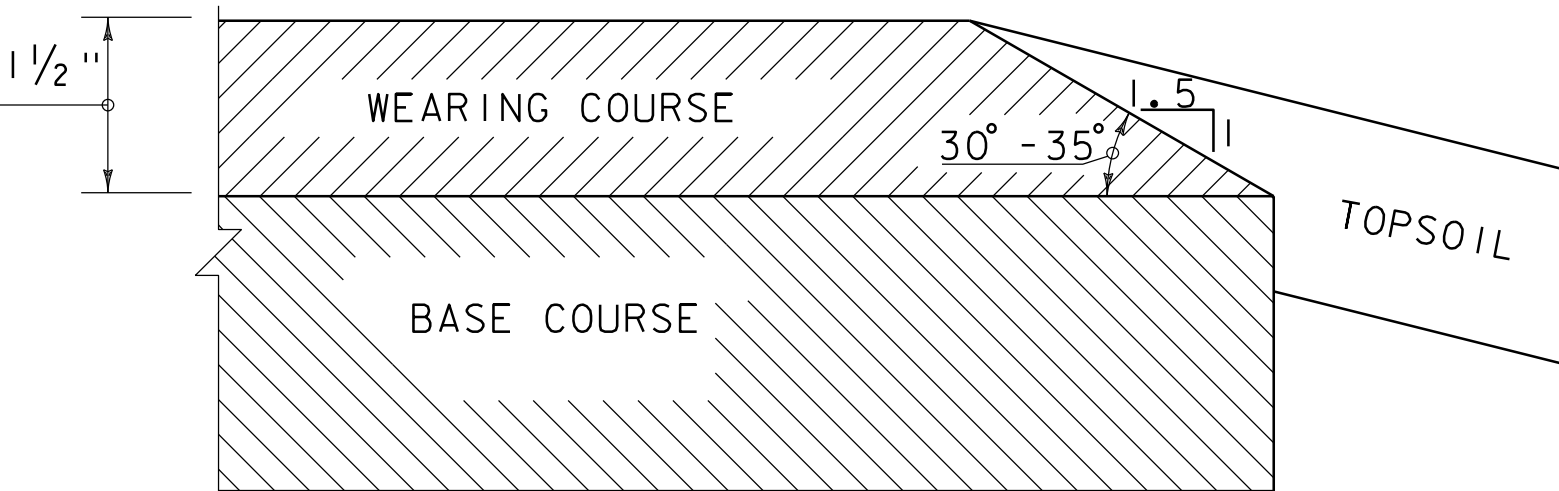
PLAN VIEW



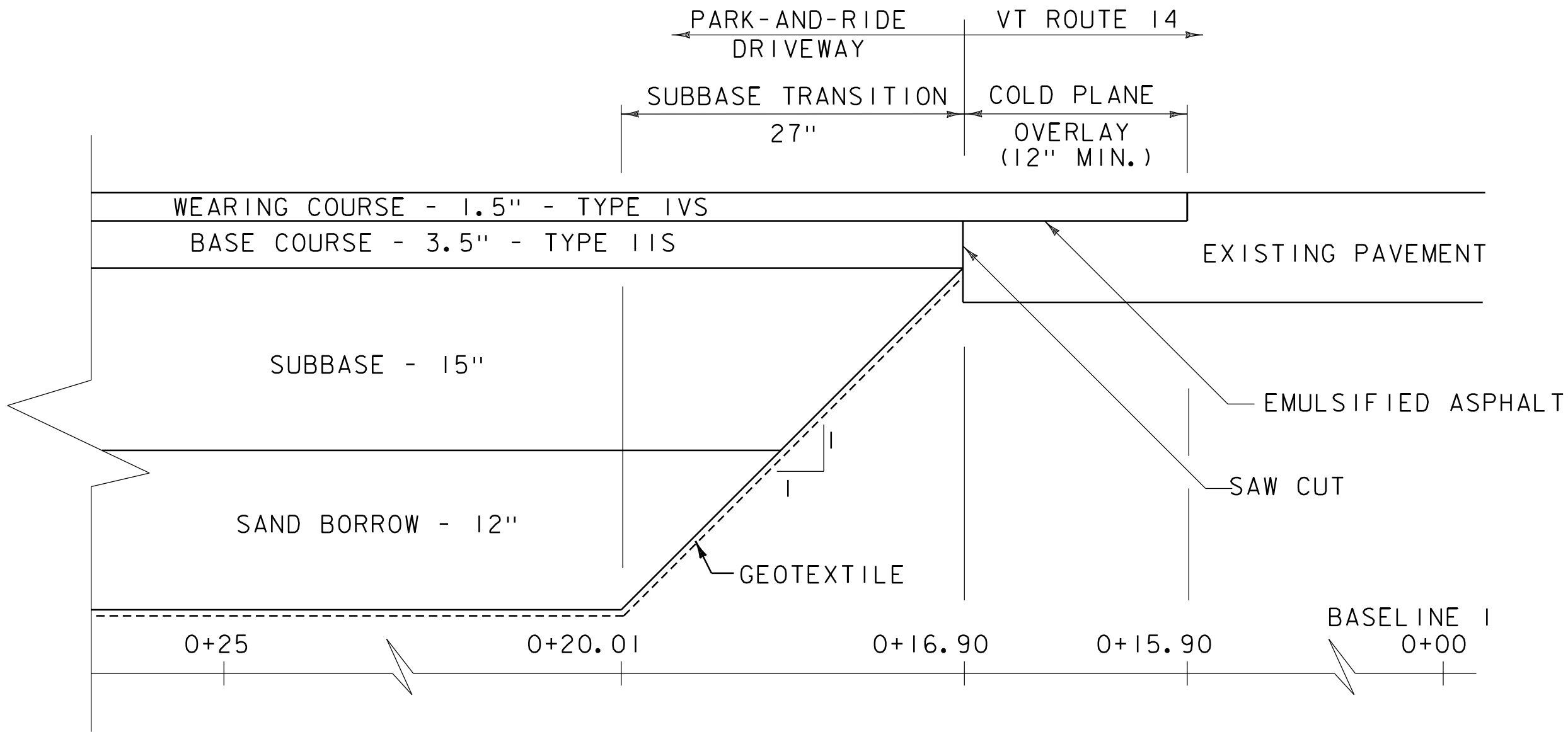
* DIAMETER, LENGTH & MATERIAL
PER MANUFACTURER'S RECOMMENDATIONS

SURFACE FLANGE MOUNT DETAIL
NOT TO SCALE

NOTE: BICYCLE RACK, SURFACE FLANGE MOUNT, AND
LAG BOLTS TO BE PAID UNDER ITEM 900.620
SPECIAL PROVISION (BICYCLE RACK).



SAFETY EDGE DETAIL
NOT TO SCALE



PAVEMENT & SUBBASE TRANSITION (DRIVEWAY)
NOT TO SCALE

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.

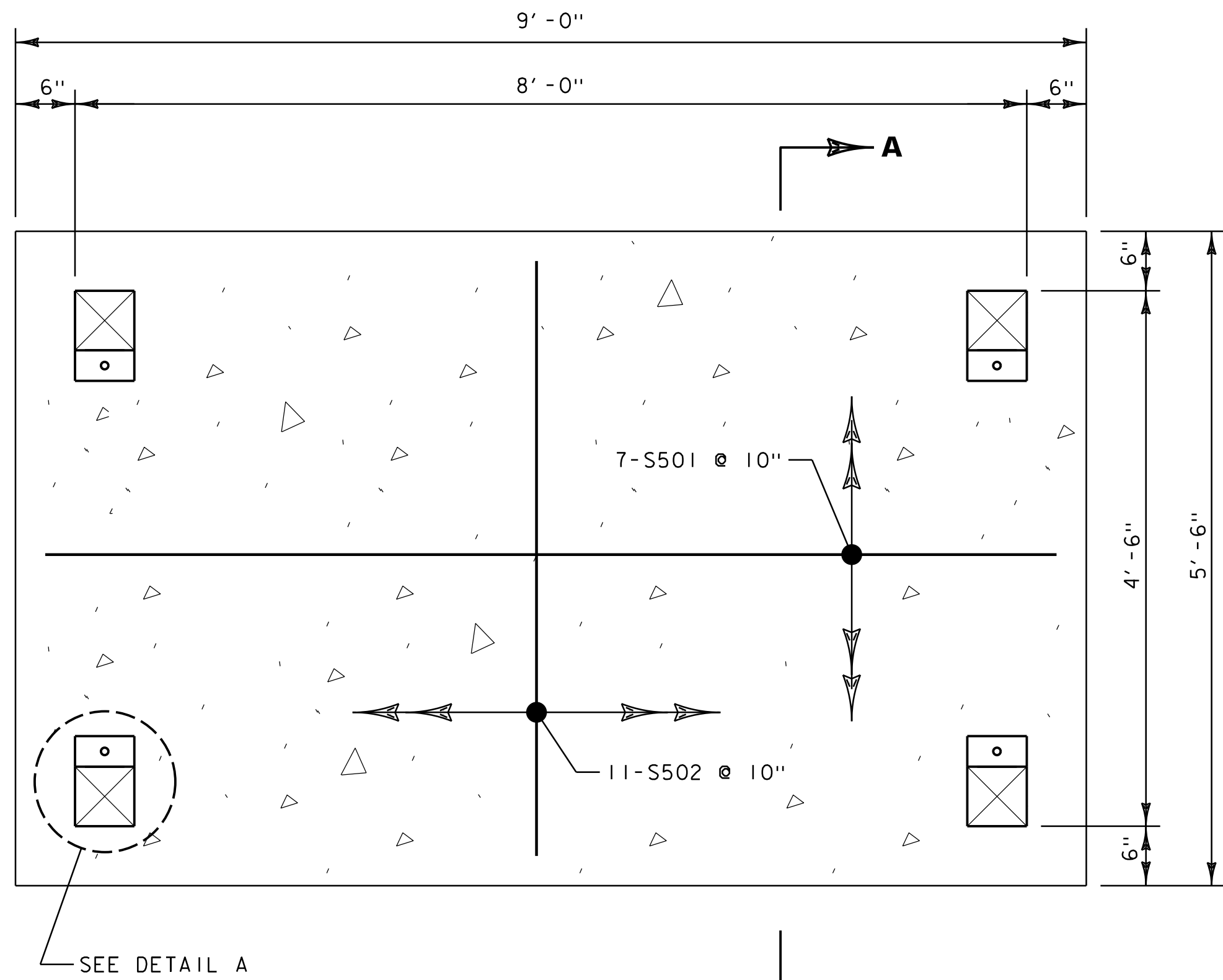
TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

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

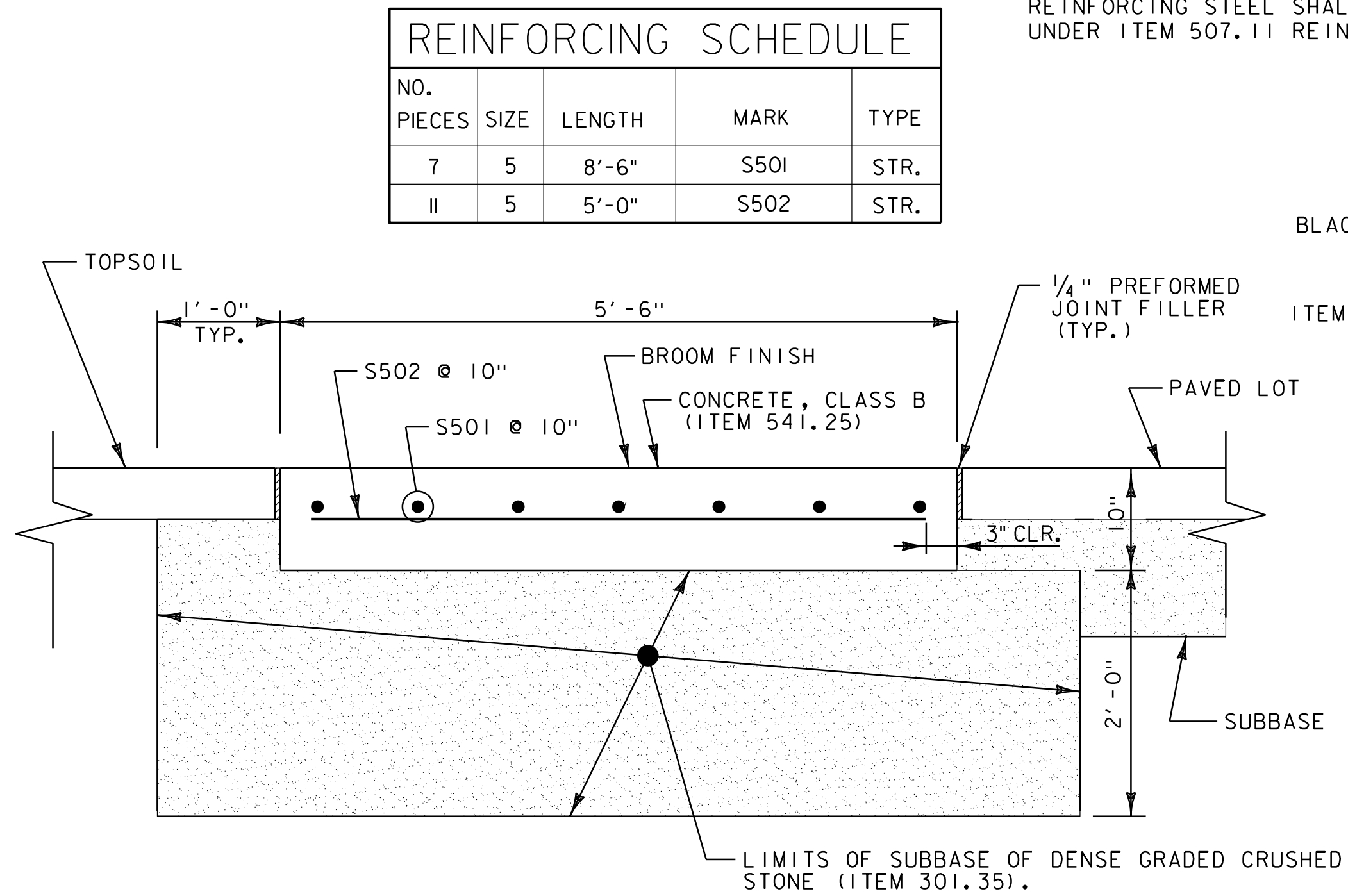
TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE	
PROJECT NUMBER: CMG PARK(37)	
FILE NAME: ...drawing\zllk350+yp.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: STANTEC
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
DETAILS SHEET	SHEET 3 OF 37





PLAN
SCALE: 1" = 1'-0"



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

BUS SHELTER SLAB DETAIL

NOTES:
REINFORCING STEEL SHALL BE PAID UNDER ITEM 507.11 REINFORCING STEEL, LEVEL 1.

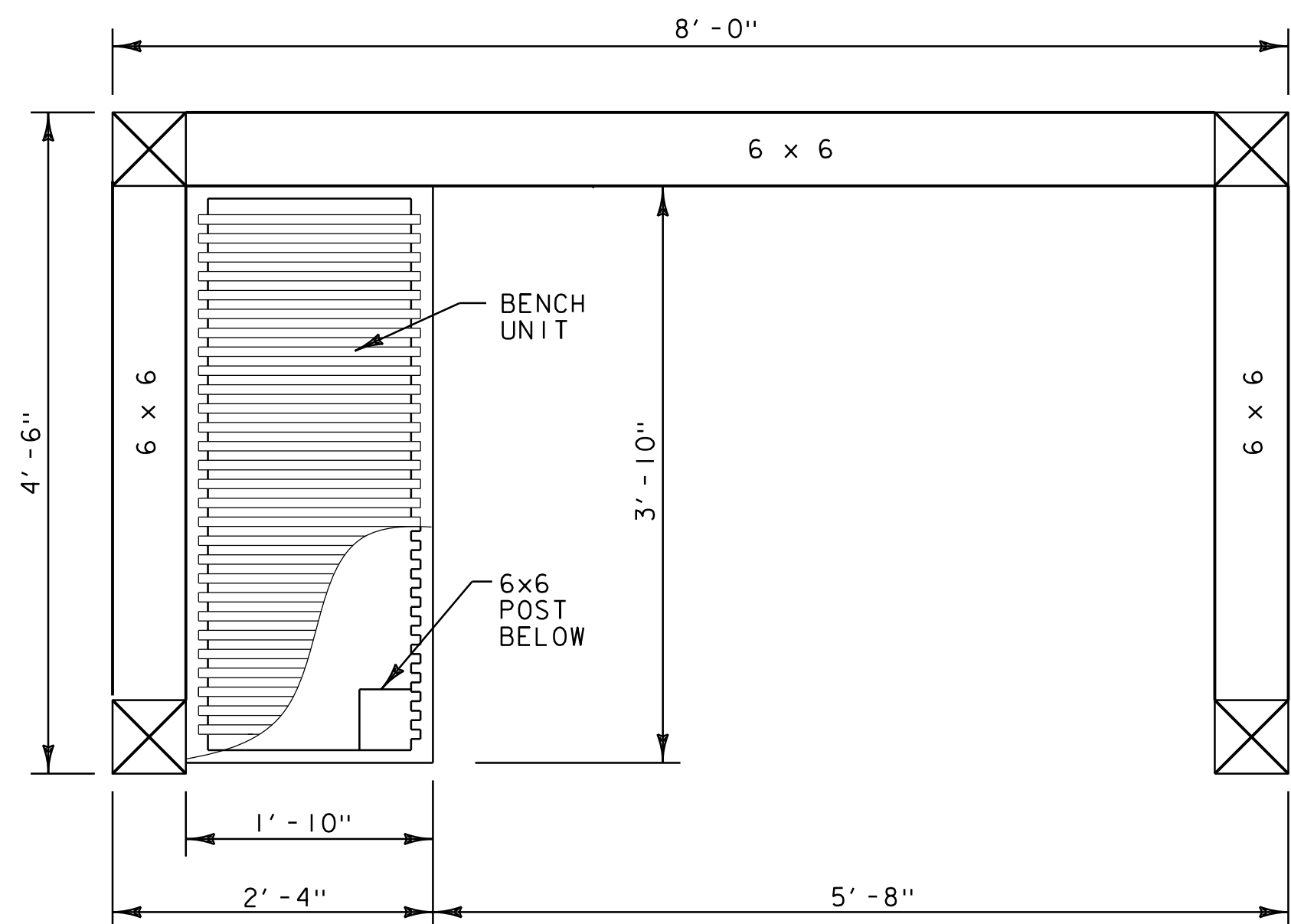
BLACK GALVANIZED POST CONNECTION PLATE WITH A 3/4" BLACK GALVANIZED BOLT AND NUT AND A 3" SQUARE BLACK GALVANIZED WASHER INCLUDED IN THE UNIT PRICE BID FOR ITEM 900.645 SPECIAL PROVISION (BUS SHELTER)

3/4" BLACK GALVANIZED WASHER
3/8" BLACK GALVANIZED STEEL PLATE (TYP.)

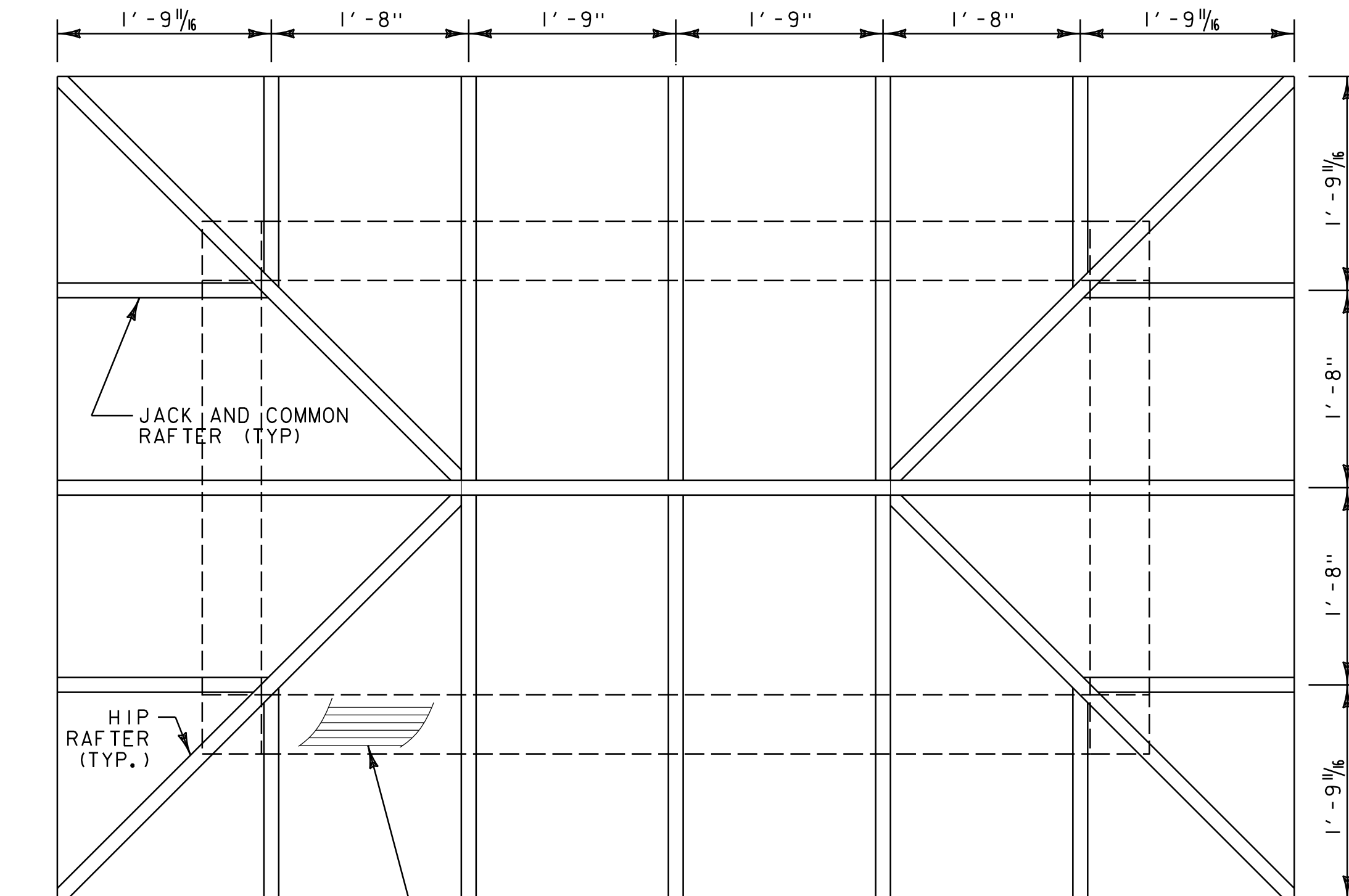
3/4" BLACK GALVANIZED ANCHOR BOLT 7" L 2" INCIDENTAL TO ITEM 541.25

NOTE: DRILL AND EPOXY ANCHORING WILL BE PERMITTED. MINIMUM 3/4" ANCHOR ROD EMBEDMENT INTO CONCRETE SHALL BE 6" AND HAVE A MINIMUM PULL OUT STRENGTH OF 3,000 LBS.

DETAIL A
NOT TO SCALE



PLAN VIEW
SCALE: 1" = 1'-0"



ROOF DECKING TO BE NOMINAL 2x6 V-GROOVE, T&G ROOF DECK.

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

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

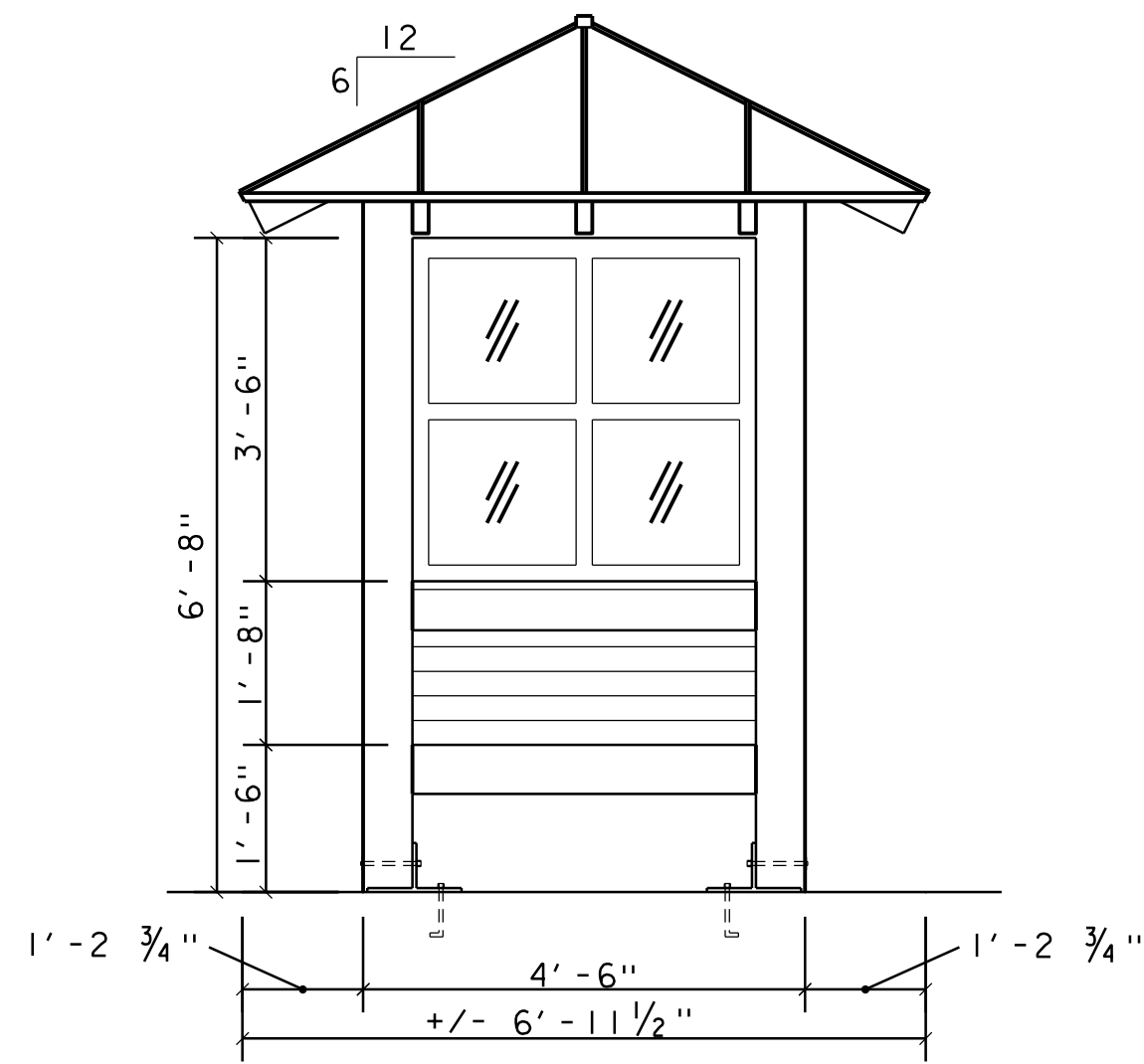
- NOTES:**
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION, 2011 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 2010, AND ITS LATEST REVISIONS.
 - REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING +/- 1"
CLEARANCE +/- 1/4"
 - ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2" BY 1/2"
 - WATER REPELLENT SILANE (ITEM 514.10) SHALL BE APPLIED TO ALL EXPOSED CONCRETE.
 - ALL MATERIALS AND WORK DETAILED ON THIS SHEET SHALL BE INCLUDED UNDER ITEM 900.645 SPECIAL PROVISION (BUS SHELTER) UNLESS OTHERWISE NOTED.
 - ALL WOODEN PEGS SHALL BE 1" DIAMETER OAK.
 - THE STRUCTURE WAS DESIGNED FOR THE FOLLOWING LOADS:
GROUND SNOW LOAD = 100 psf
BASIC WIND SPEED = 90 mph
CATEGORY I
 - ALL DIMENSIONS ARE NOMINAL. MEMBERS SHALL BE SURFACED ON FOUR SIDES.
 - 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).
 - SEE BUS SHELTER SPECIAL PROVISION IN CONTRACT DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE
PROJECT NUMBER: CMG PARK(37)

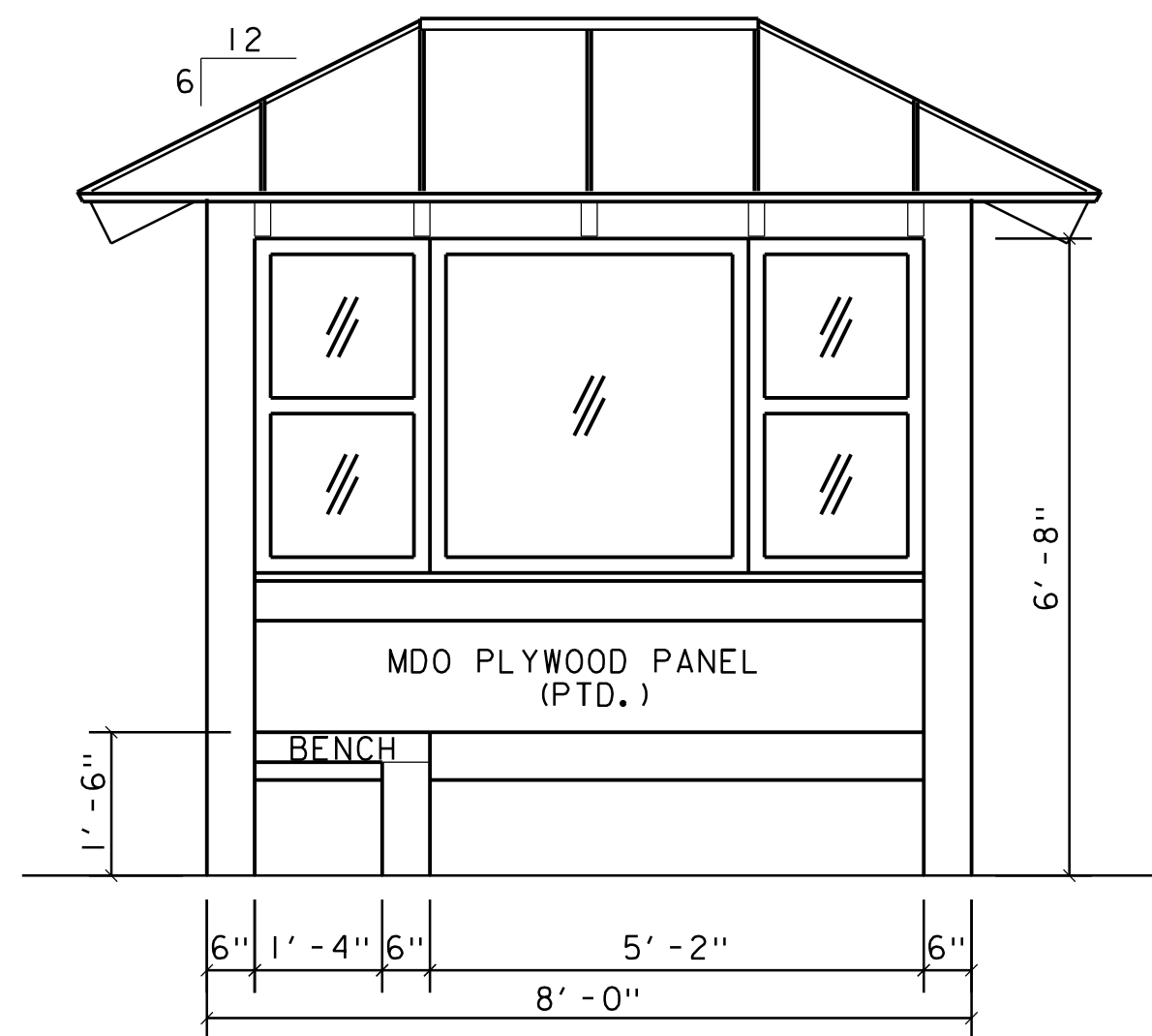
FILE NAME: zlk350shltr_det.dgn
PROJECT LEADER: G. SANTY
DESIGNED BY: J. HUNGERFORD
BUS SHELTER DETAILS I

PLOT DATE: 3/28/2016
DRAWN BY: L. BUXTON
CHECKED BY: G. BOGUE
SHEET 4 OF 37

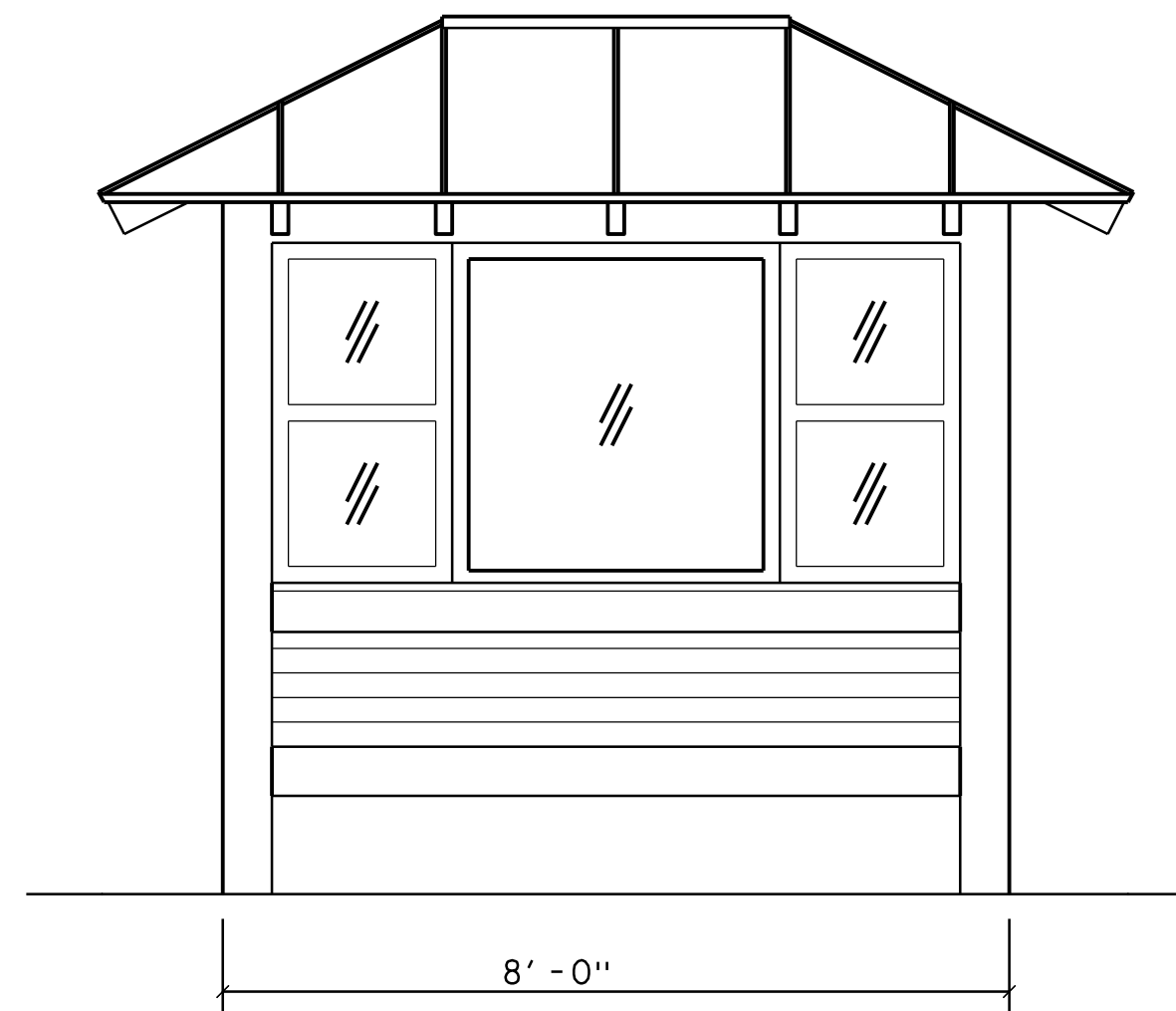




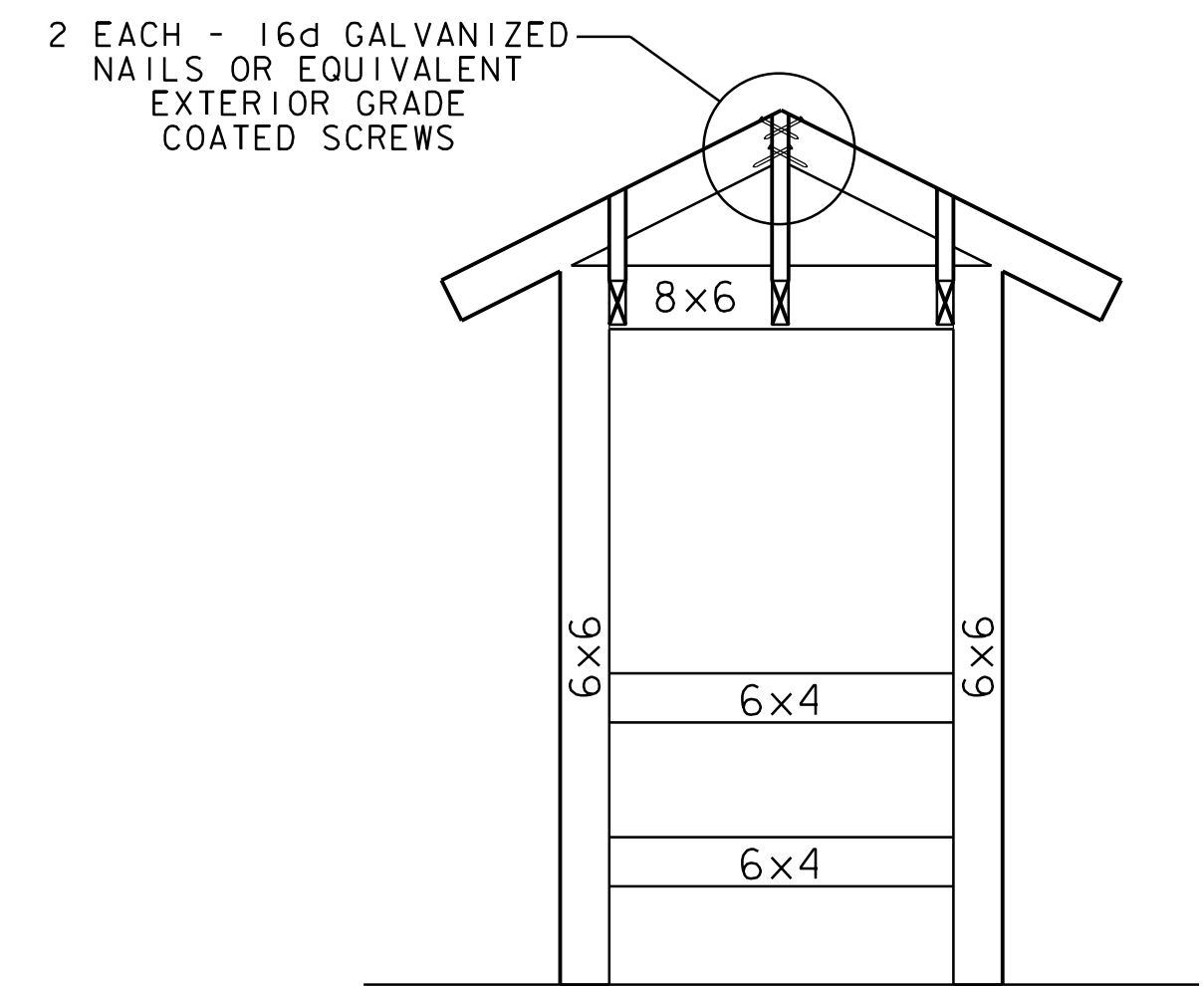
END ELEVATION (TYP.)
SCALE: 1/2" = 1'-0"



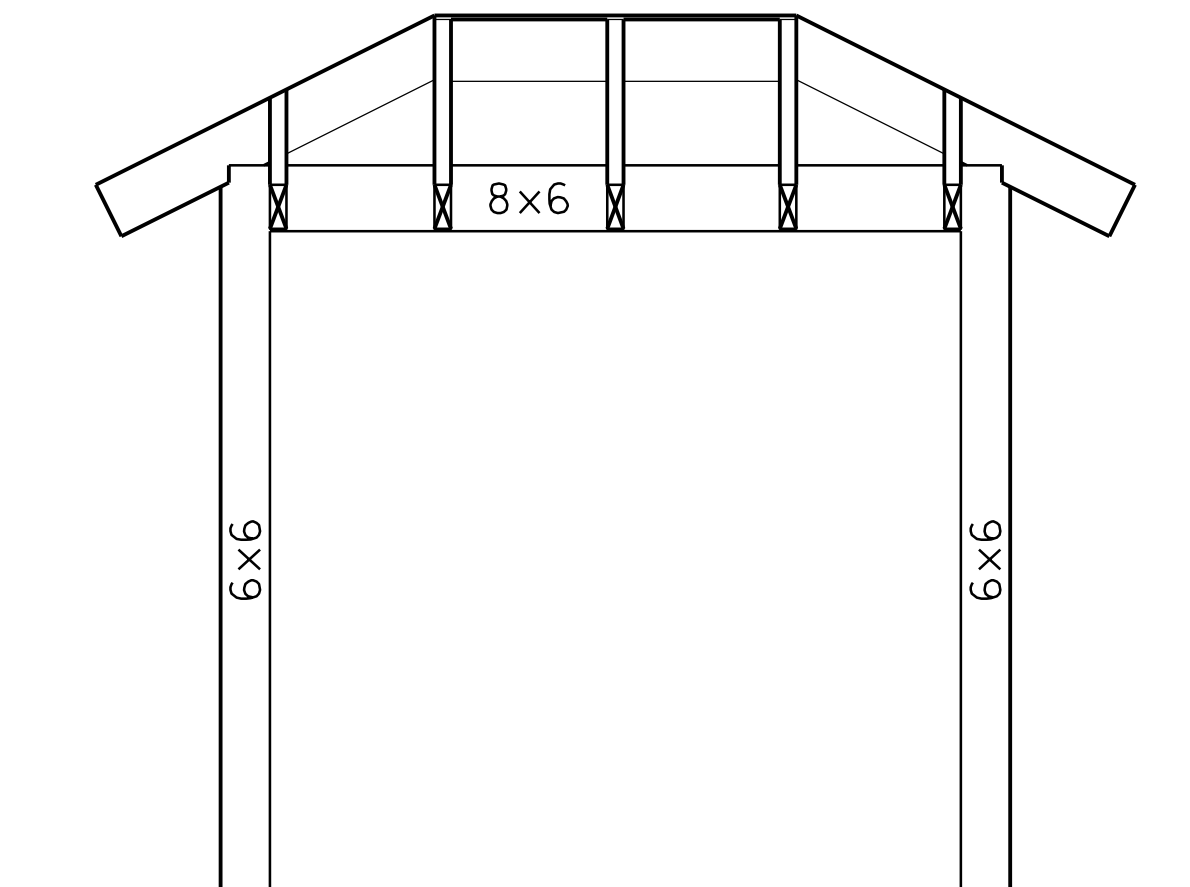
FRONT/INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"



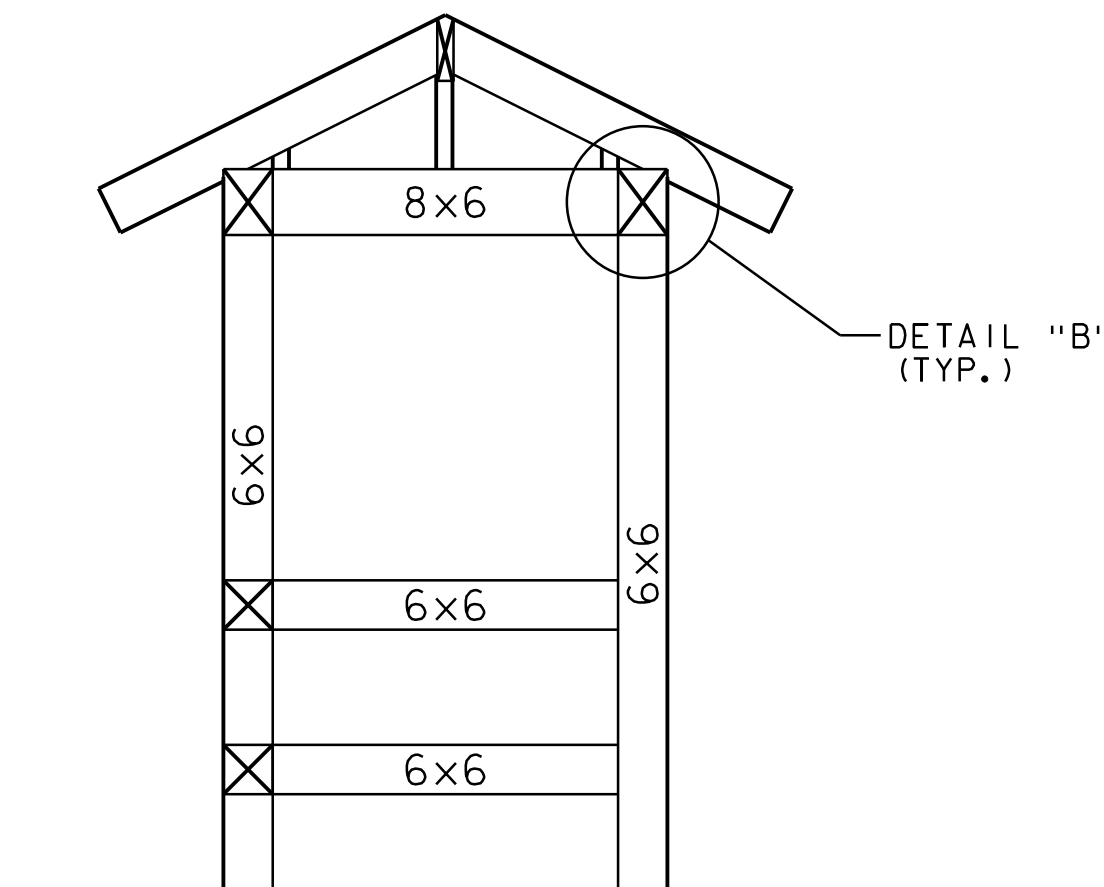
REAR ELEVATION
SCALE: 1/2" = 1'-0"



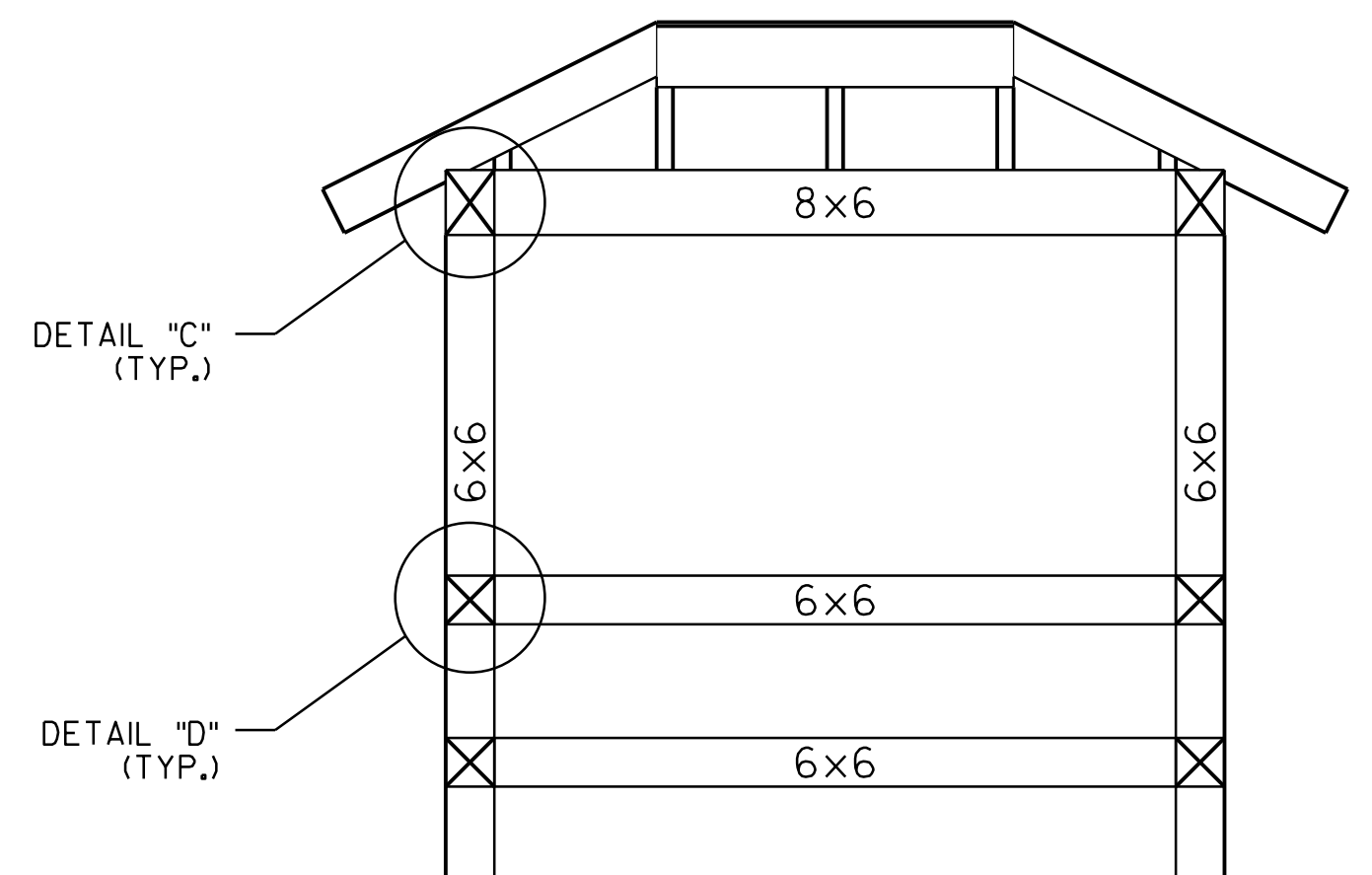
END FRAMING - ELEVATION
SCALE: 1/2" = 1'-0"



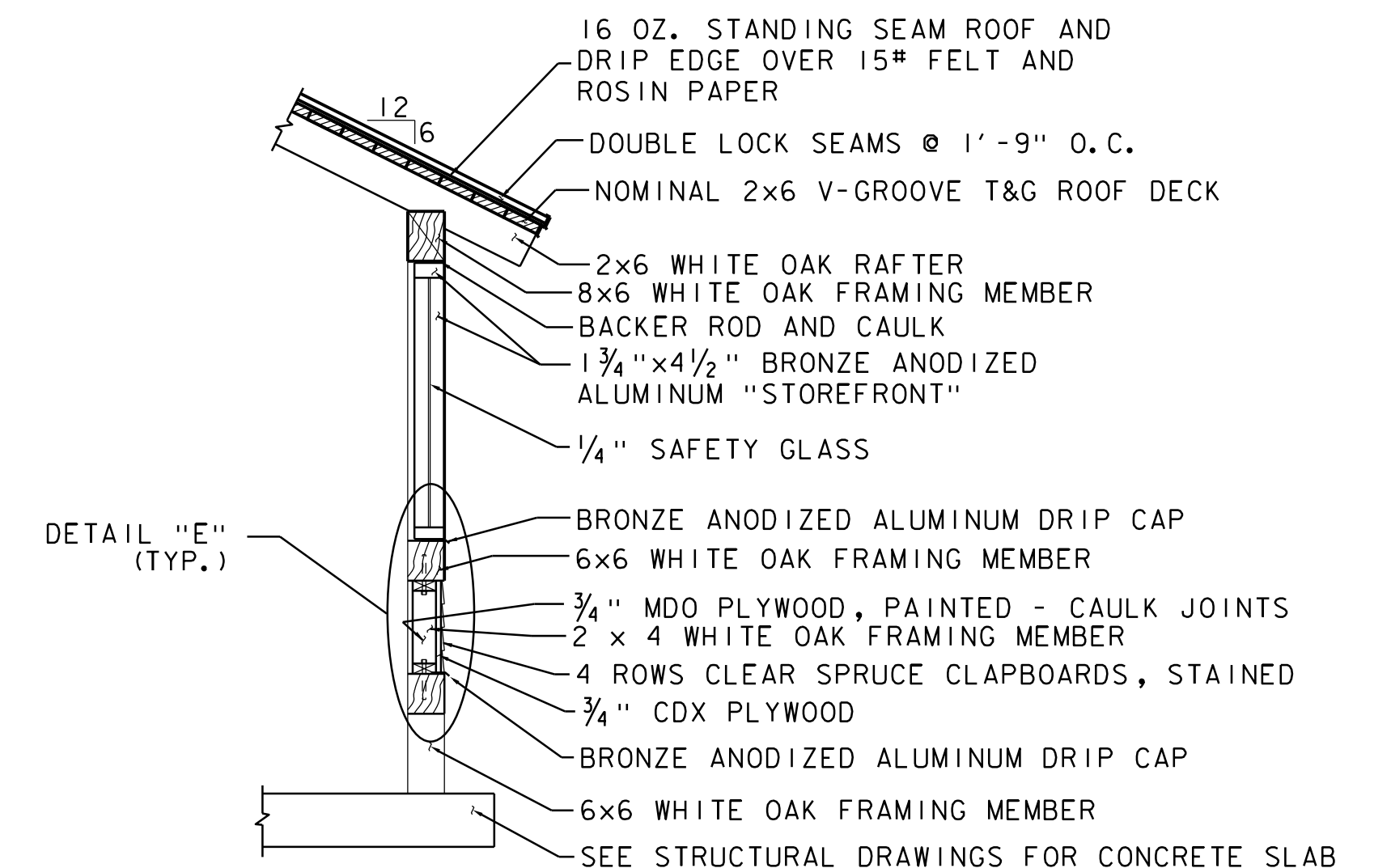
FRONT/REAR FRAMING - ELEVATION
SCALE: 1/2" = 1'-0"



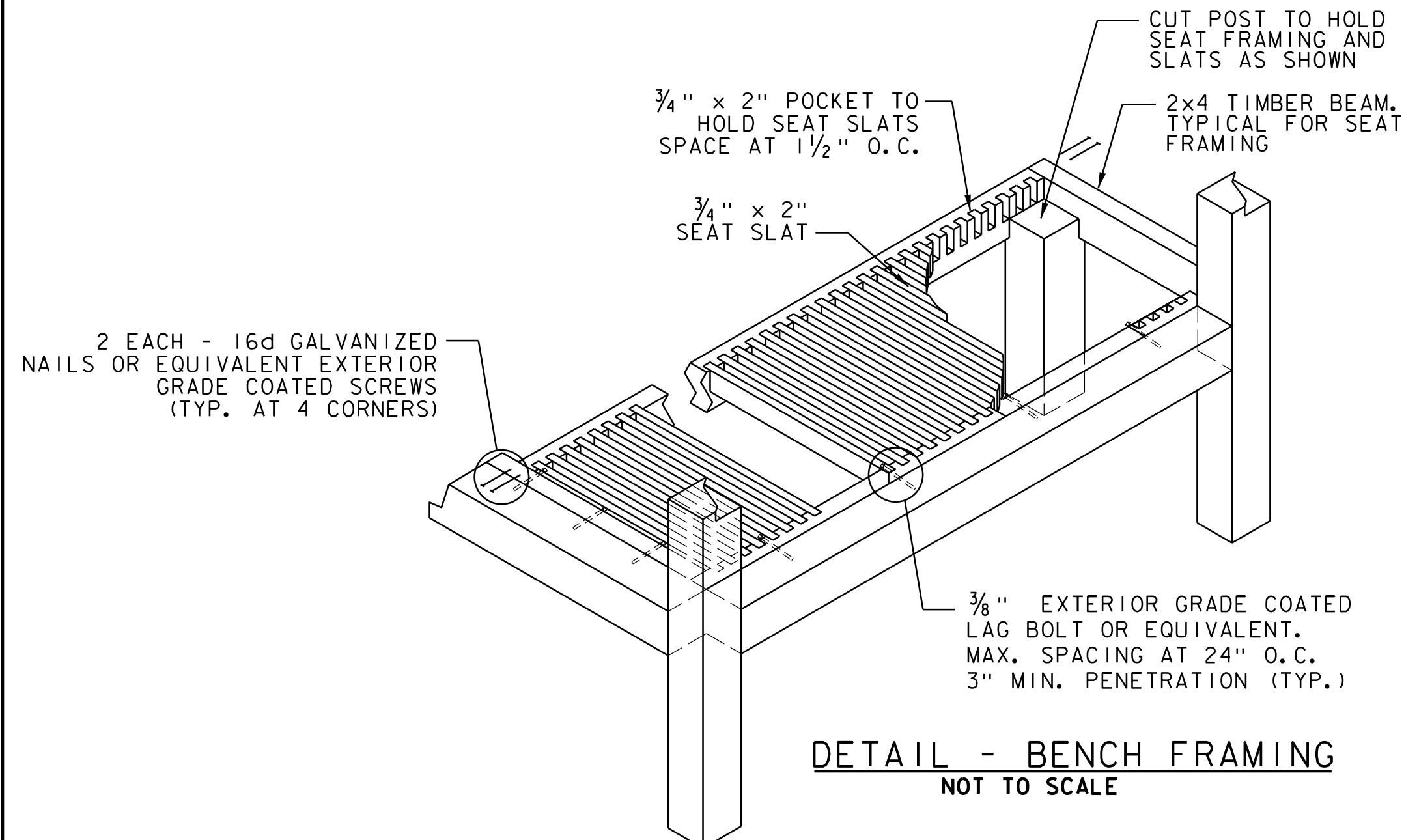
END FRAMING - SECTION
SCALE: 1/2" = 1'-0"



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



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



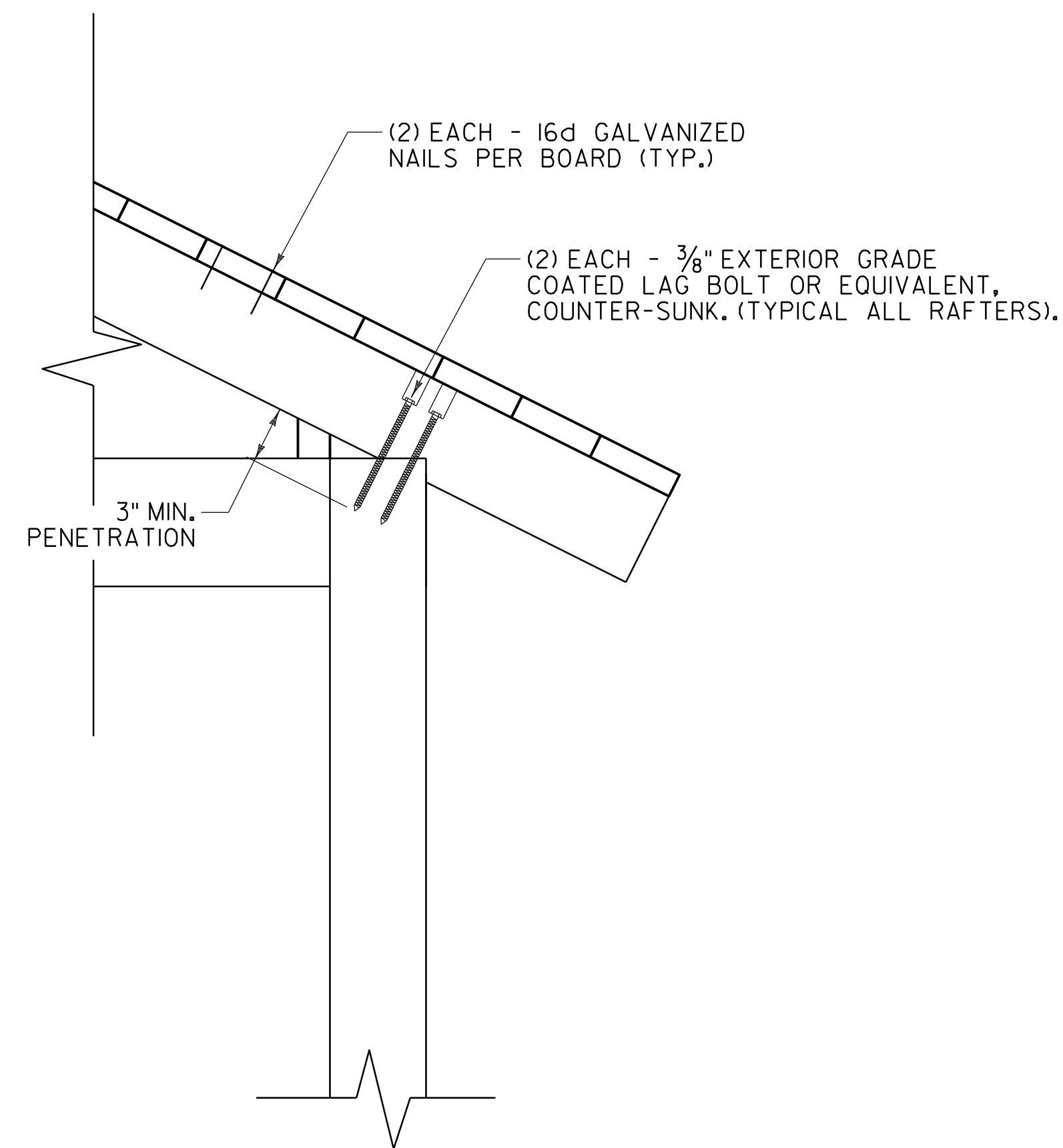
DETAIL - BENCH FRAMING
NOT TO SCALE

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

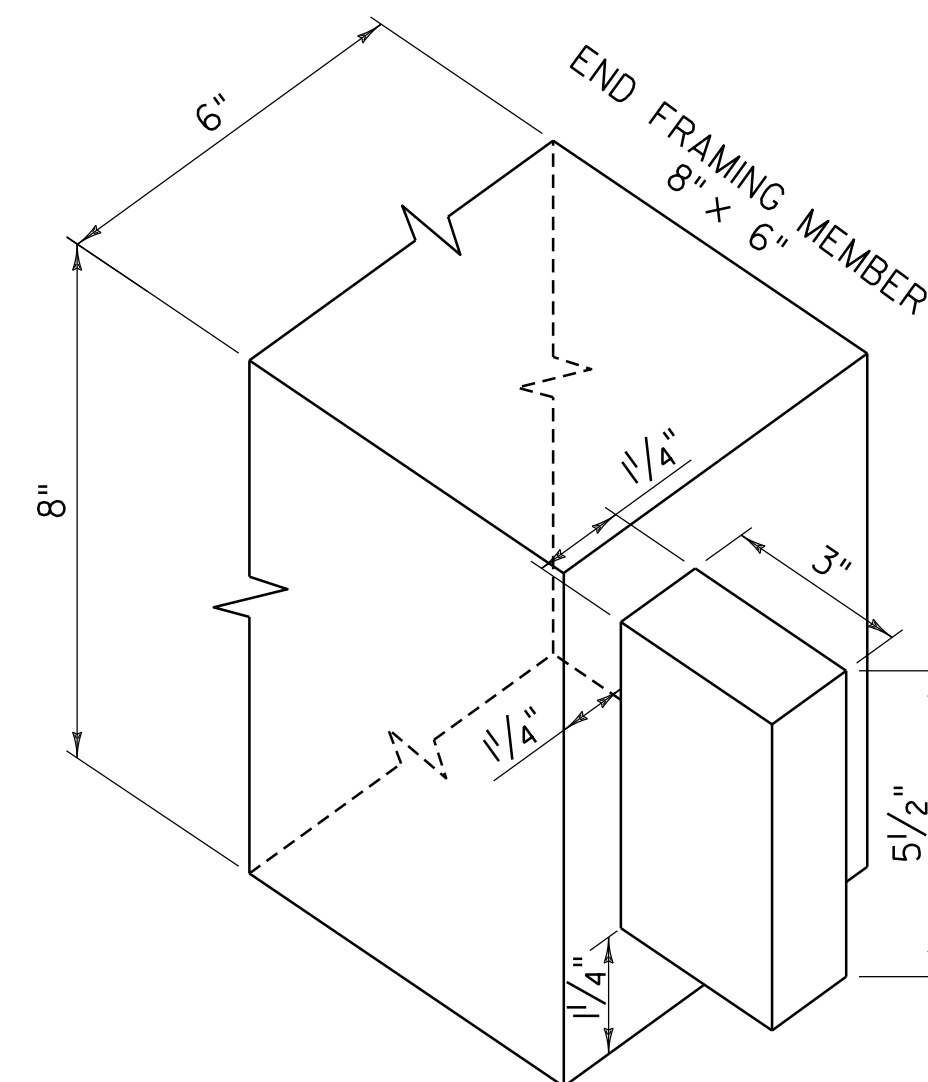
NOTE:
FOR DETAILS B & C, SEE BUS SHELTER DETAILS 3.
FOR DETAILS D & E, SEE BUS SHELTER DETAILS 4.
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.



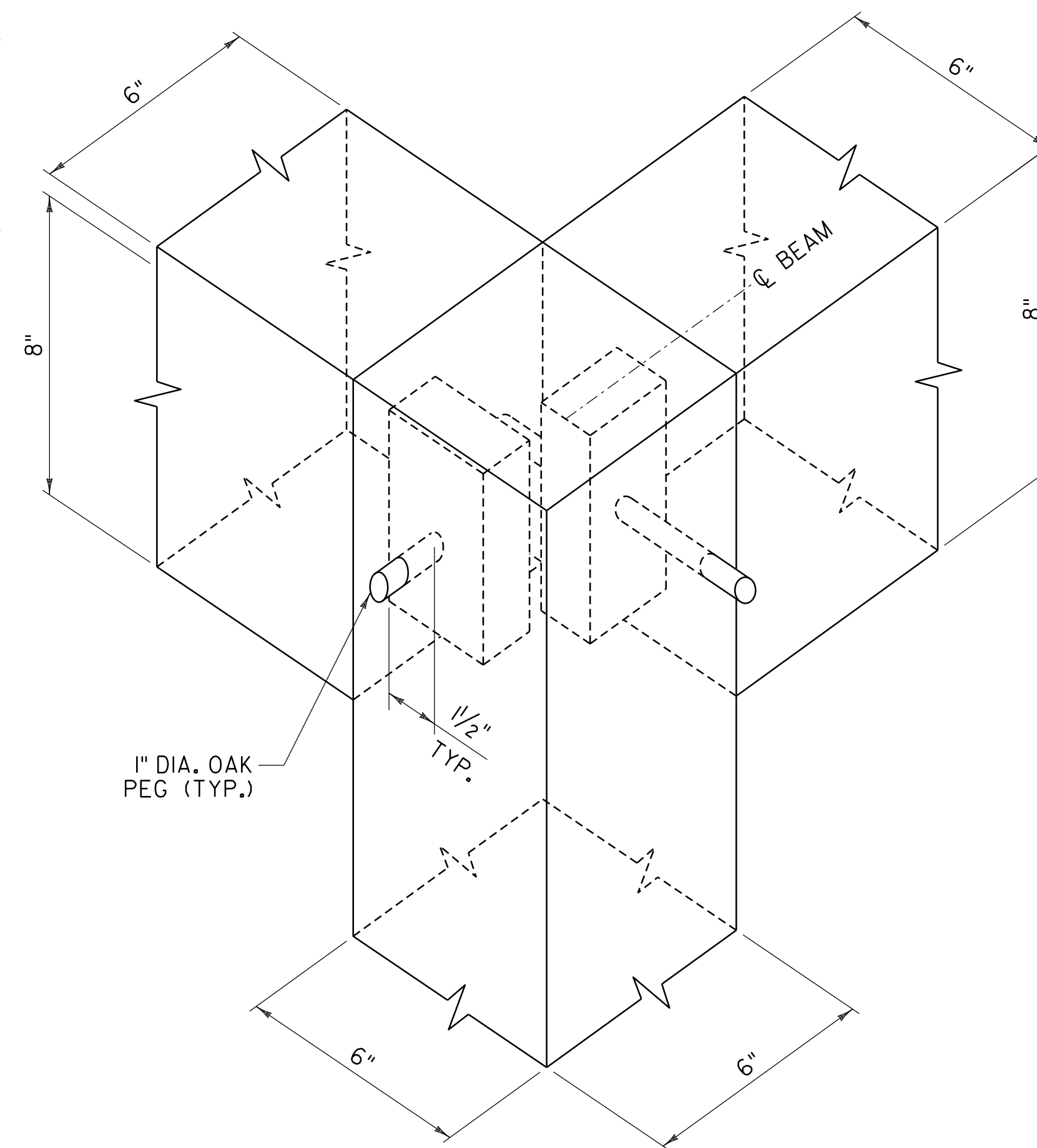
PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE	
PROJECT NUMBER: CMG PARK(37)	
FILE NAME: zlik350shltr_det.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: L. BUXTON
DESIGNED BY: J. HUNGERFORD	CHECKED BY: G. BOGUE
BUS SHELTER DETAILS 2	SHEET 5 OF 37



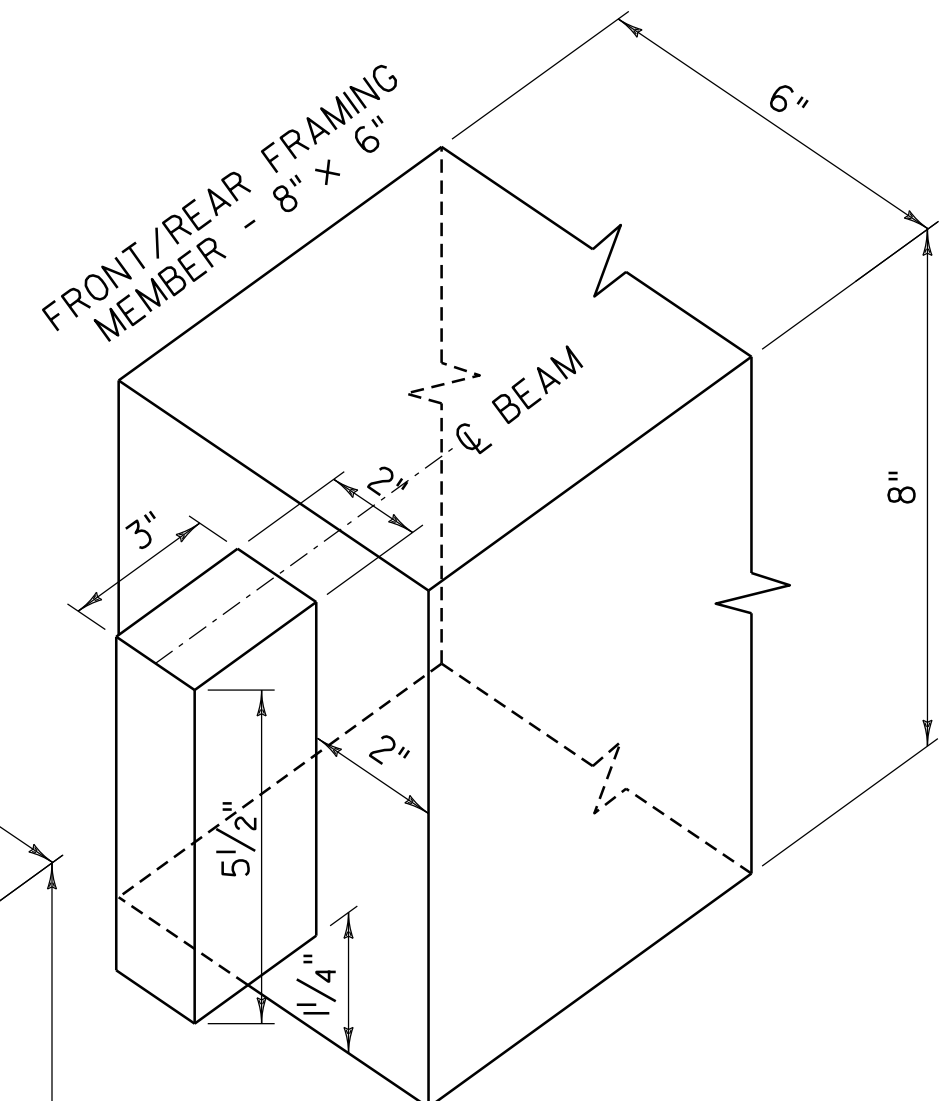
DETAIL "B"
SCALE 1 1/2" = 1'-0"



MORTISE & TENON
DETAIL



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

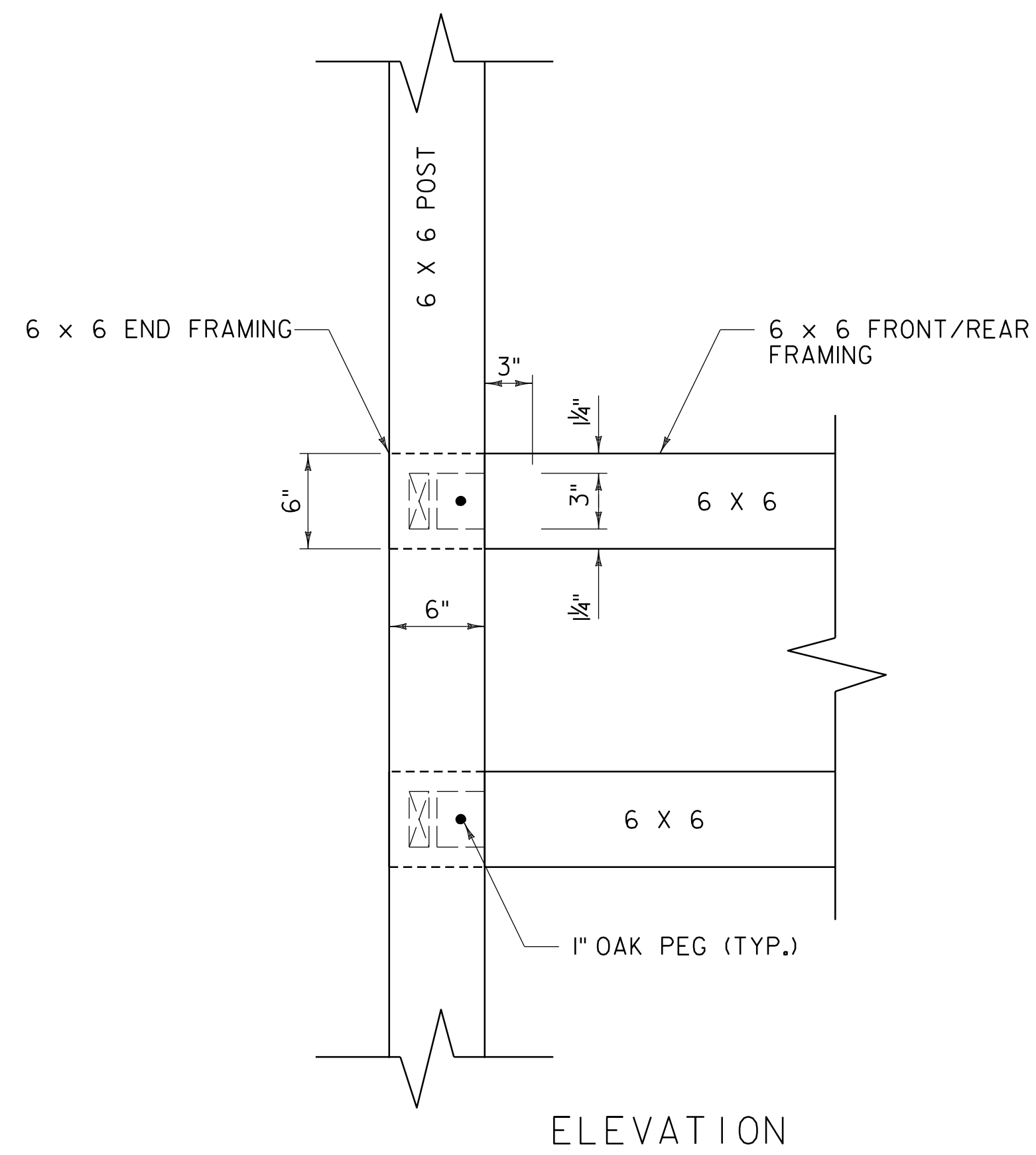
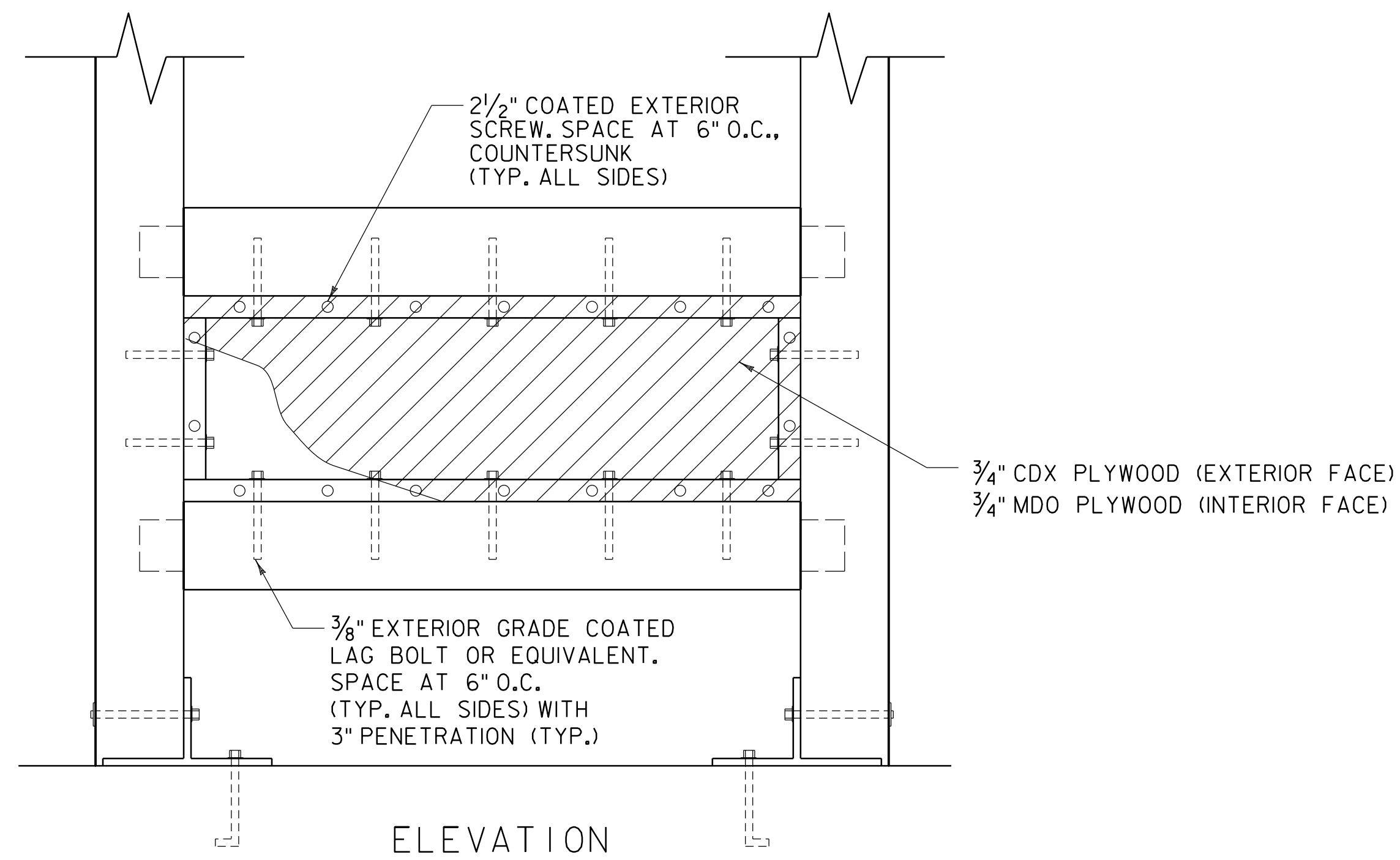
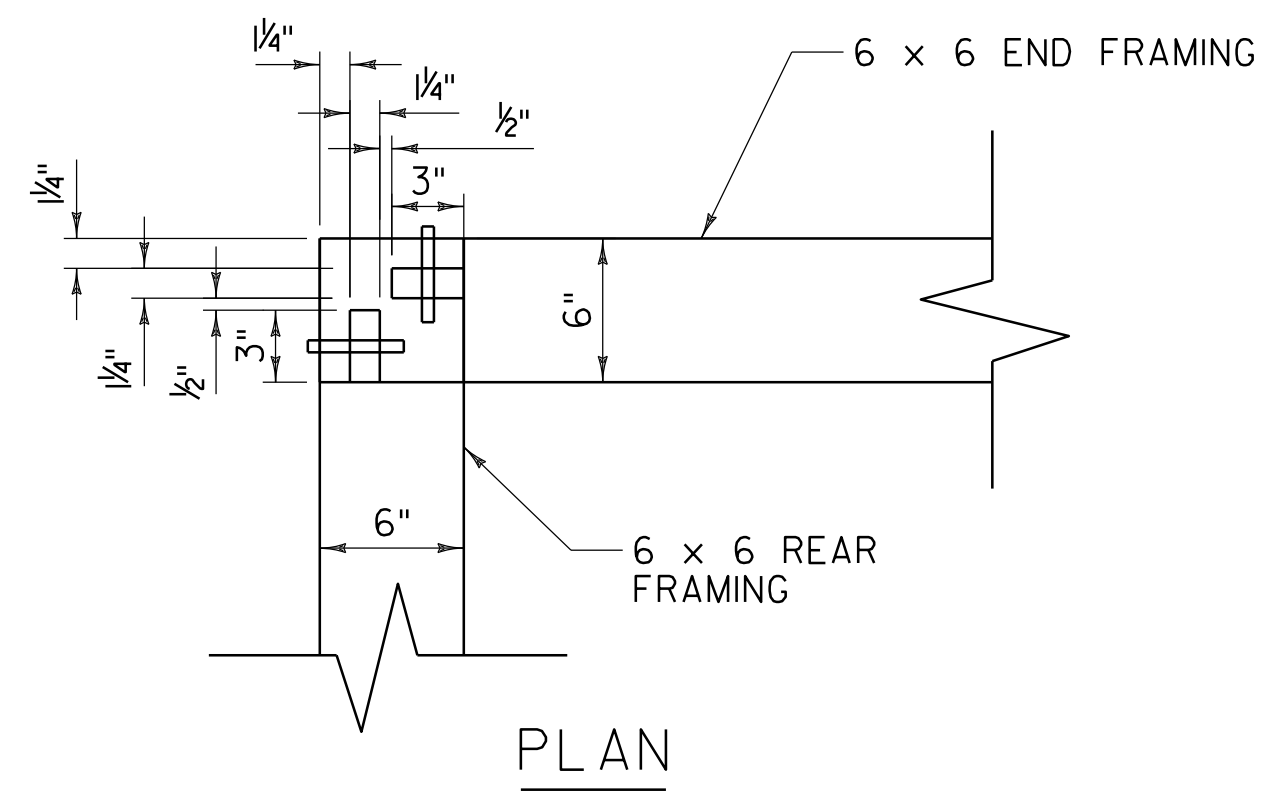


MORTISE & TENON
DETAIL

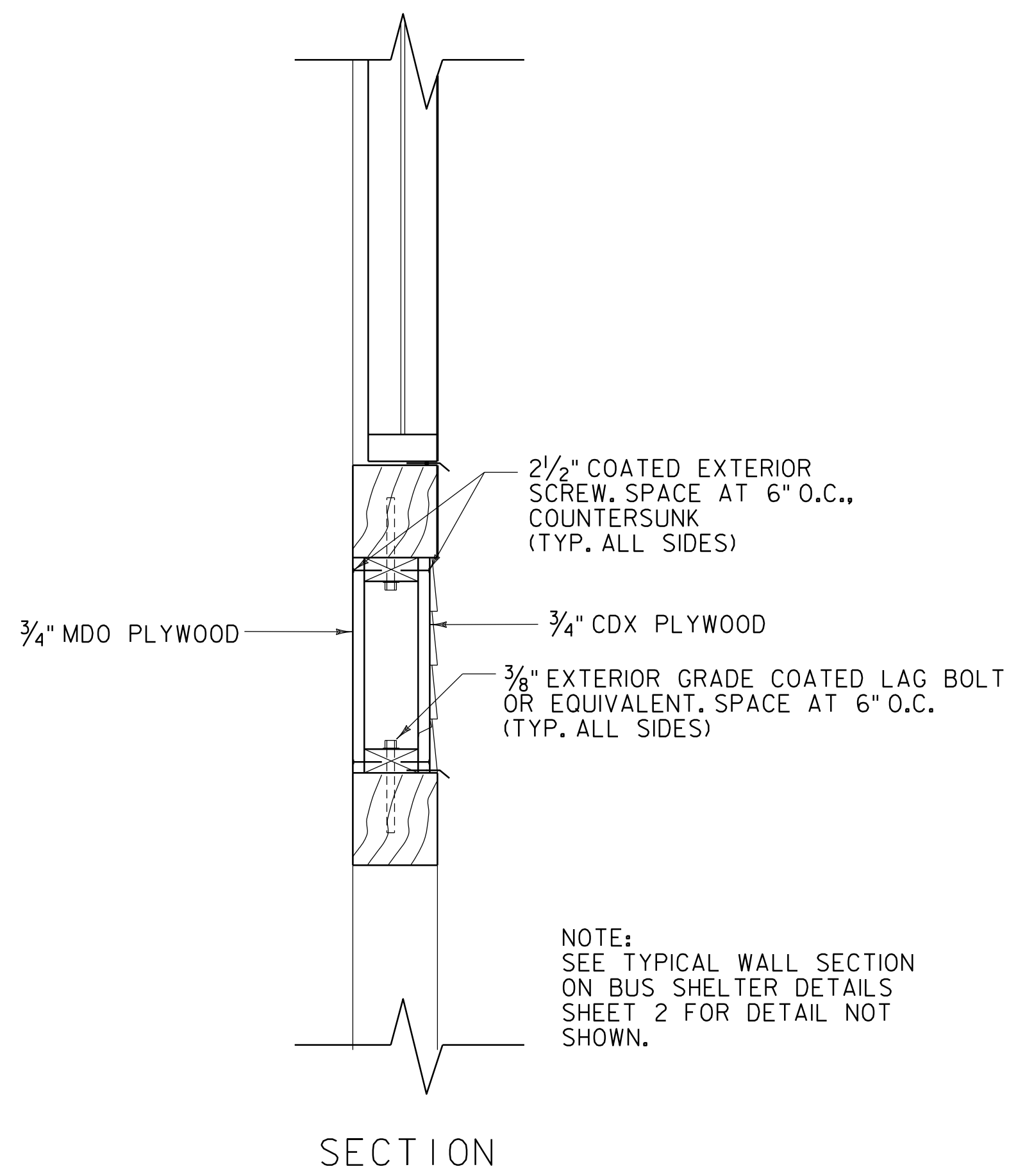
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.



PROJECT NAME: EAST MONTEPELIER PARK-AND-RIDE	
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FILE NAME: zlik350shltr_det.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: L. BUXTON
DESIGNED BY: J. HUNGERFORD	CHECKED BY: G. BOGUE
BUS SHELTER DETAILS 3	SHEET 6 OF 37



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: EAST MONTPELIER PARK-AND-RIDE	
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FILE NAME: zlik350shltr_det.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: L. BUXTON
DESIGNED BY: J. HUNGERFORD	CHECKED BY: G. BOGUE
BUS SHELTER DETAILS 4	SHEET 7 OF 37

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES											TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES					
											ROADWAY	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
											1			1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-			COMMON EXCAVATION
											1			1		EACH	DEMOLITION AND DISPOSAL OF BUILDING	202.10	-	202	CY	TOTAL FROM EARTHWORKS SHEET
											210			210		CY	COMMON EXCAVATION	203.15	8	8	CY	ROUNDING
											670			670		CY	EARTH BORROW	203.30	9	210	CY	TOTAL
											550			550		CY	SAND BORROW	203.31	2			SUBBASE OF DENSE GRADED CRUSHED STONE
											80			80		CY	TRENCH EXCAVATION OF EARTH	204.20	0.8	666	CY	PARKING LOT AREA
											2			2		CY	TRENCH EXCAVATION OF ROCK	204.21	0.8	4	CY	ROUNDING
											1			1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-	670	CY	TOTAL
											670			670		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	4			
											4			4		CWT	EMULSIFIED ASPHALT	404.65	0.7			
											1			1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-			
											120			120		LB	REINFORCING STEEL, LEVEL I	507.11	1			SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)
											1			1		GAL	WATER REPELLENT, SILANE	514.10	0.6	325	TON	PARKING LOT AND ENTANCE DRIVE (TYPE IIS)
											2			2		CY	CONCRETE, CLASS B	541.25	0.5	139	TON	PARKING LOT AND ENTANCE DRIVE (TYPE IVS)
											1			1		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.	6	TON	ROUNDING
											10			10		HR	POWER BROOM RENTAL, TYPE I	608.30	EST.	470	TON	TOTAL
											1			1		HR	TRUCK RENTAL	608.37	EST.			
											73			73		MGAL	DUST CONTROL WITH WATER	609.10	5			
											80			80		LF	REMOVAL OF EXISTING CURB	616.41	8			
											10			10		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH	618.11	1			
											2			2		EACH	YELDING MARKER POSTS	619.17	-			
											70			70		LF	REMOVAL OF EXISTING FENCE	620.55	7			
											2			2		EACH	REMOVAL AND DISPOSAL OF GUIDE POSTS	621.81	-			
											100			100		HR	FLAGGERS	630.15	EST.			
													1	1		LS	FIELD OFFICE, ENGINEERS	631.10	-			
													1	1		LS	TESTING EQUIPMENT, CONCRETE	631.16	-			
													1	1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-			
													3000	3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	-			
											1			1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-			
											1			1		LS	TRAFFIC CONTROL	641.10	-			
											1010			1010		LF	DURABLE 4 INCH WHITE LINE, EPOXY PAINT	646.403	6			
											35			35		LF	DURABLE 4 INCH YELLOW LINE, EPOXY PAINT	646.413	1			
											30			30		LF	DURABLE 24 INCH STOP BAR, EPOXY PAINT	646.483	4			
											2			2		EACH	DURABLE LETTER OR SYMBOL, EPOXY PAINT	646.493	-			
											2060			2060		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	2			
												100		100		LB	SEED	651.15	EST.			
												200		200		LB	FERTILIZER	651.18	EST.			
												1		1		TON	AGRICULTURAL LIMESTONE	651.20	EST.			
												1		1		TON	HAY MULCH	651.25	EST.			
												200		200		CY	TOPSOIL	651.35	5			



QUANTITY SHEET 2

[illegible]

PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE	
PROJECT NUMBER: CMG PARK(37)	
FILE NAME: ...\\drawing\\zilk350frm.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
QUANTITY SHEET 2	SHEET 9 OF 37

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	BOUND SET
▣	BNDNS	BOUND TO BE SET
●	IPNS	IRON PIN SET
⊙	IPNS	IRON PIN TO BE SET
⊠	CALC	EXISTING ROW POINT
○	PROW	PROPOSED ROW POINT
[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
PDF — PDF —	PROJECT DEMARCATION FENCE
BF — — — — BF — — — —	BARRIER FENCE
xxxxxxxxxxxxxxxxxxxx	TREE PROTECTION ZONE (TPZ)
//////	STRIPING LINE REMOVAL
~~~~~	SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLGY

BOUNDARY LINES

—————	TOWN LINE	TOWN BOUNDARY LINE
—————	COUNTY LINE	COUNTY BOUNDARY LINE
—————	STATE 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)
△ SR ○ SR △ SR ○	———	SLOPE RIGHTS
6f ——— 6f ———	———	6F PROPERTY BOUNDARY
4f ——— 4f ———	———	4F PROPERTY BOUNDARY
HAZ ——— HAZ ———	———	HAZARDOUS WASTE

EPSC LAYOUT PLAN SYMBOLGY

EPSC MEASURES

ONNOONNOONNO	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
HAZ — HAZ —	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)
o o o o o o o o o o	STONE WALL
-----	WALL
~~~~~	WOOD LINE
~~~~~	BRUSH LINE
~~~~~	HEDGE
———	BODY OF WATER EDGE
	LEDGE EXPOSED

PROJECT NAME:	EAST MONTEPELIER PARK-AND-RIDE
PROJECT NUMBER:	CMG PARK(37)
FILE NAME: ...drawing\zllk350+yp.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: VTRANS	DRAWN BY: VTRANS
DESIGNED BY: VTRANS	CHECKED BY: VTRANS
CONVENTIONAL SYMBOLGY & LEGEND SHEET SHEET 10 OF 37	

DISK MM 5

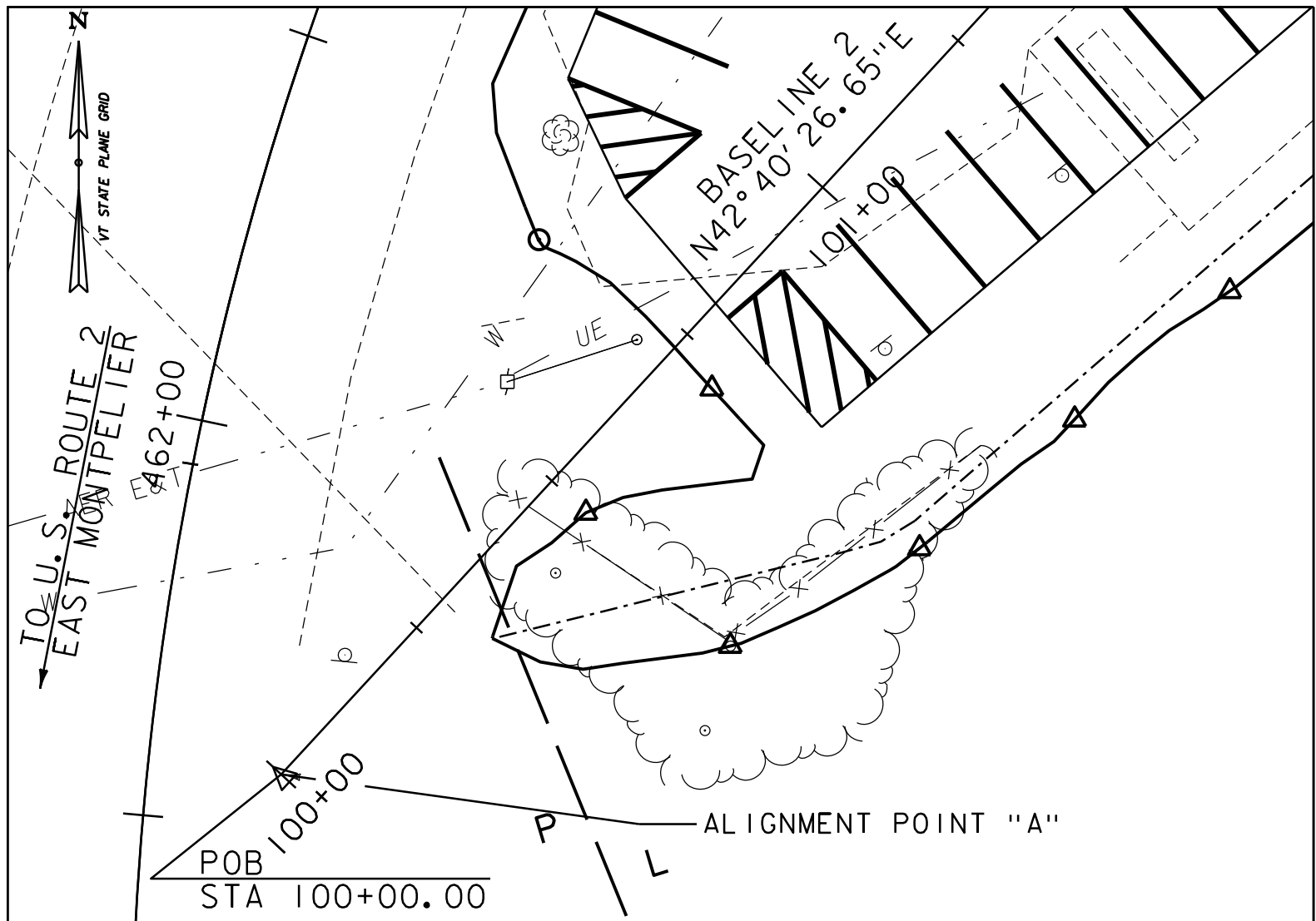
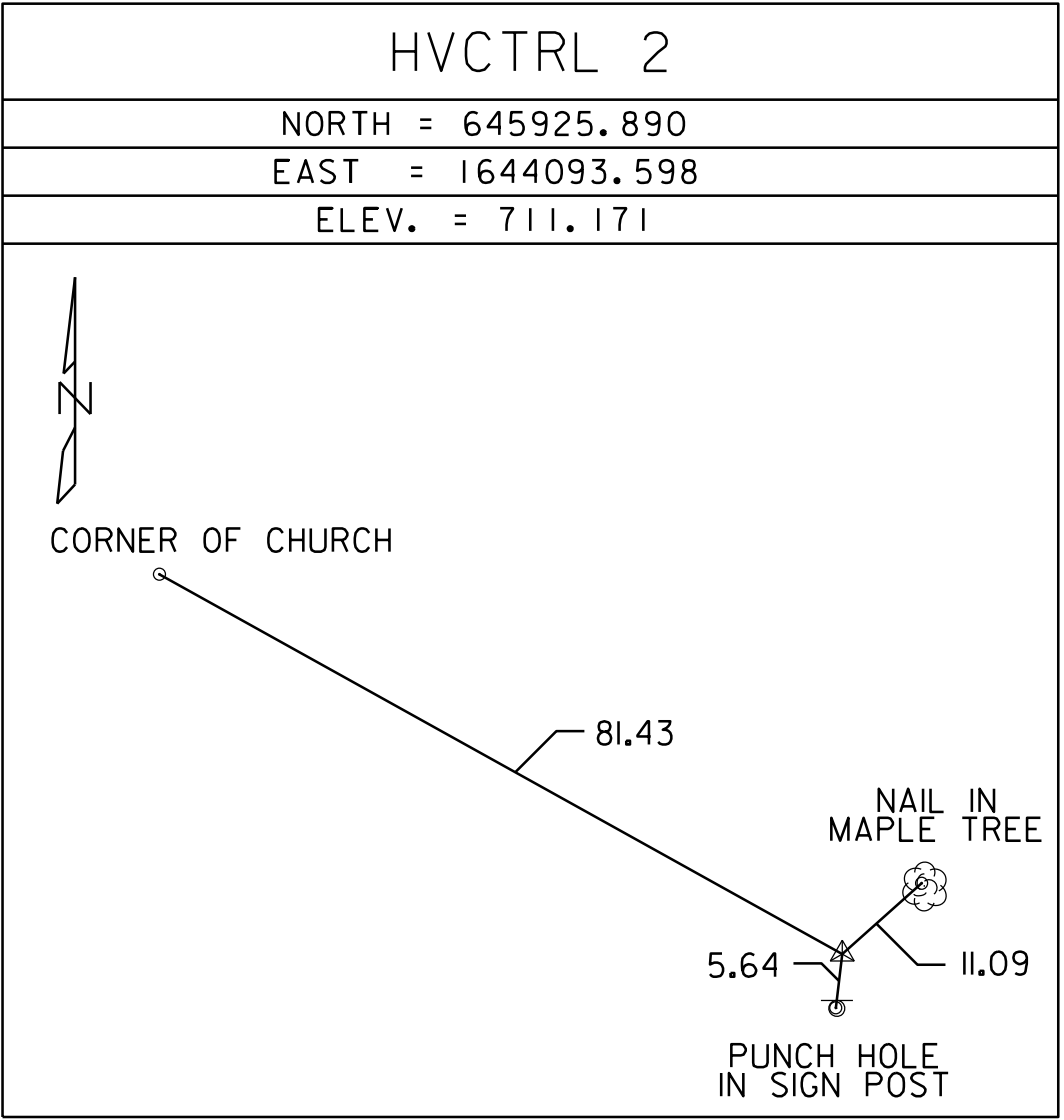
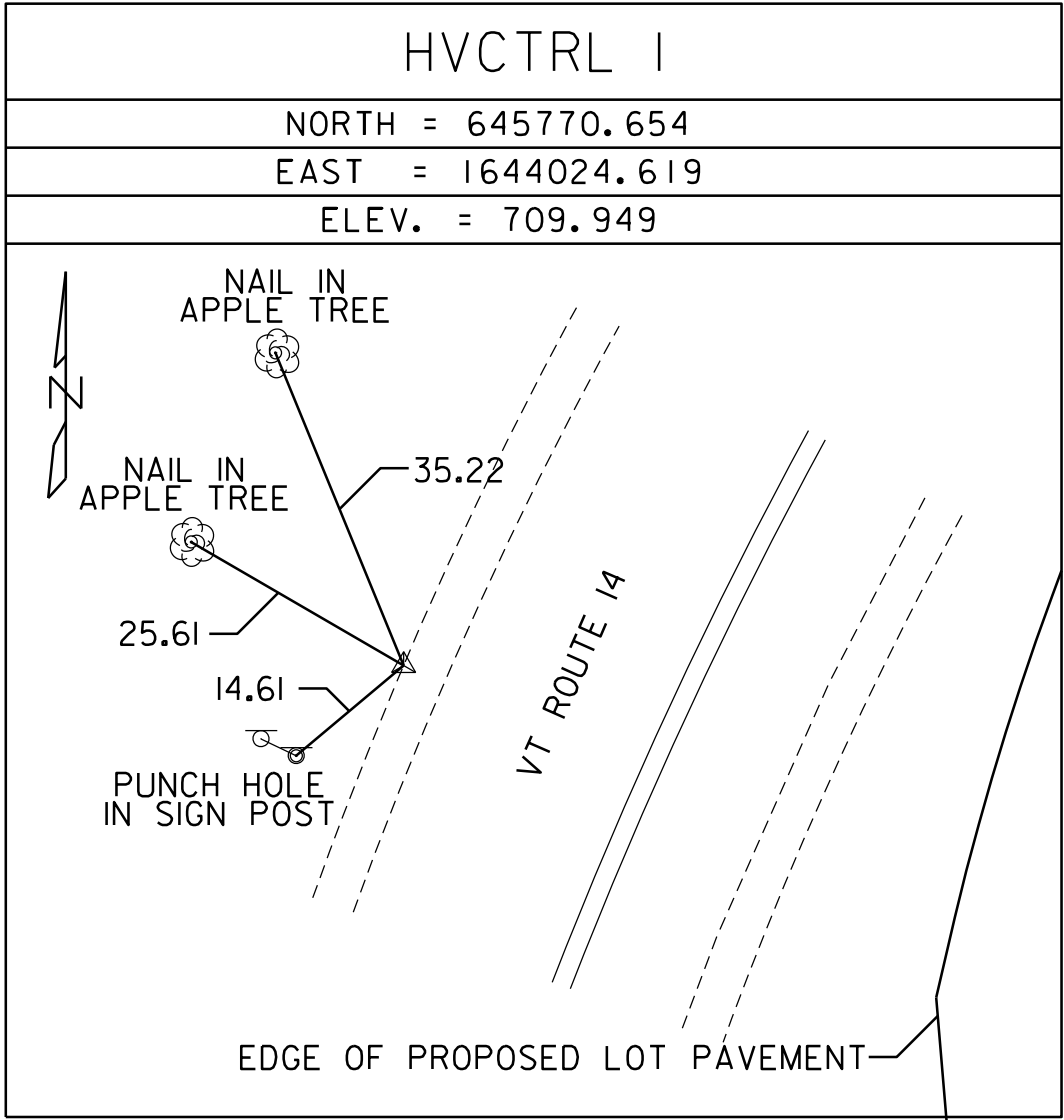
DIRECTION	ACTUAL GRID POINTS	PROJECT SPECIFIC COORDINATE POINTS
	ENGLISH	
N	646062.992 FT	646038.863 FT
E	1643996.063 FT	1644023.552 FT
Z	727.780 FT	727.611 FT

GENERAL LOCATION, EAST MONTPELIER, VT.

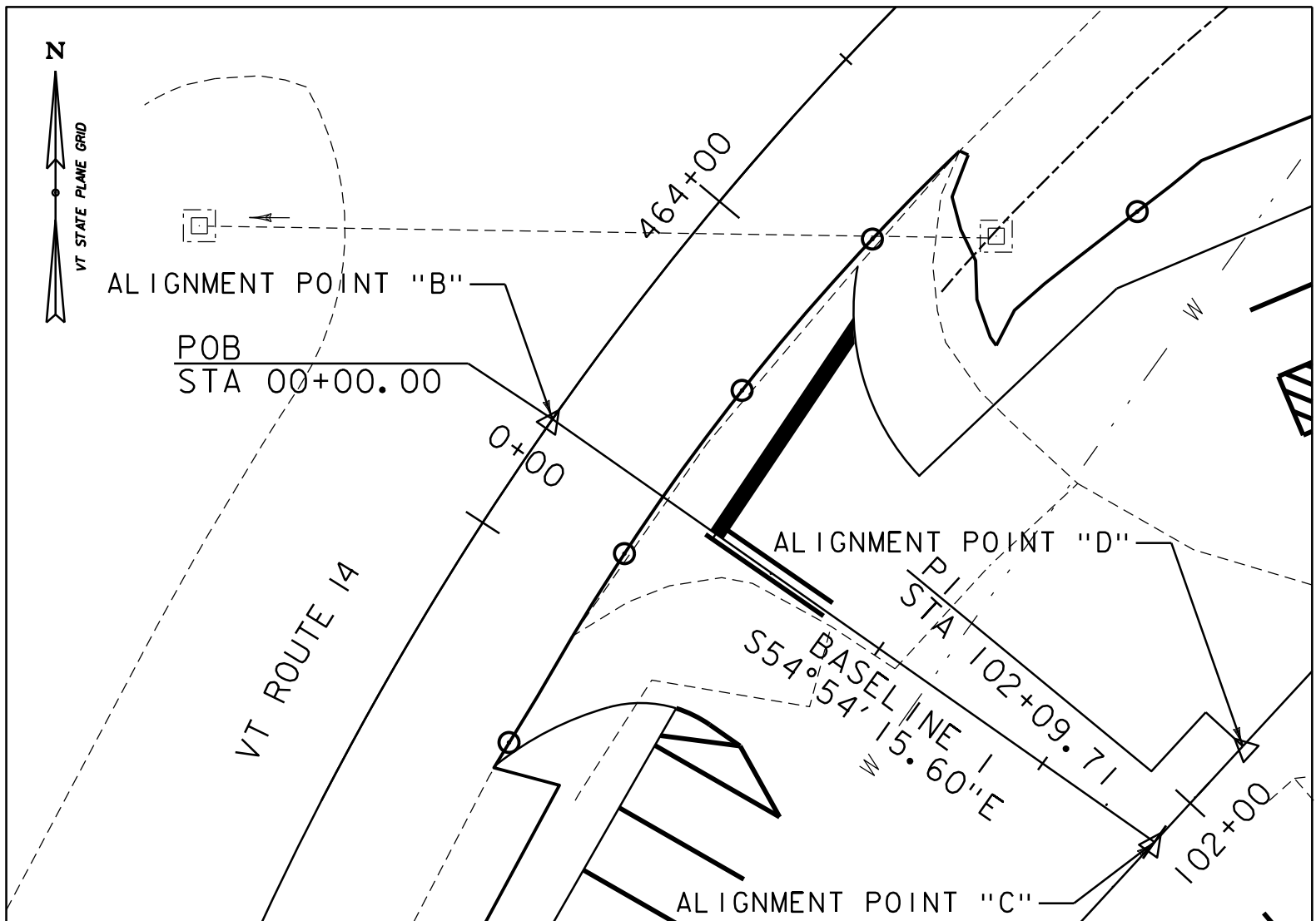
DESCRIBED BY COAST AND GEODETIC SURVEY 1936 0.3 MINORTHEAST FROM EAST MONTPELIER.0.3 MINORTHEAST ALONG U.S.HIGHWAY 2 FROM A COVERED BRIDGE AT EAST MONTPELIER, WASHINGTON COUNTY, ABOUT 175 YARDS NORTHEAST OF THE JUNCTION OF STATE HIGHWAY 12, 75 YARDS NORTHEAST OF A BRICK CHURCH, 70 FEET WEST OF THE JUNCTION OF A COUNTY ROAD, IN THE TOP OF A ROCK OUTCROP, AND ABOUT 20 FEET HIGHER THAN THE HIGHWAY. A UNITED STATES GEOLOGICAL SURVEY STANDARD DISK, STAMPED MM 5 1928.

RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1979 TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 2 AND STATE HIGHWAY 14, IN EAST MONTPELIER GO EAST ON HIGHWAY 14 FOR 0.05 MILE TO THE MARK ON THE LEFT. THE MARK IS A U.S. GEOLOGICAL SURVEY DISK CEMENTED IN A DRILL HOLE IN ROCK OUTCROP THAT PROJECTS 4 FEET ON THE SOUTH SIDE. IT IS 92 FEET EAST OF THE SOUTHEAST CORNER OF THE WASHINGTON ELECTRIC COOP BUILDING AND 76 FEET NORTH OF THE CENTER OF HIGHWAY 14.

DESCRIPTIONS PROVIDED BY VERMONT AGENCY OF TRANSPORTATION GEODETIC SURVEY UNIT.

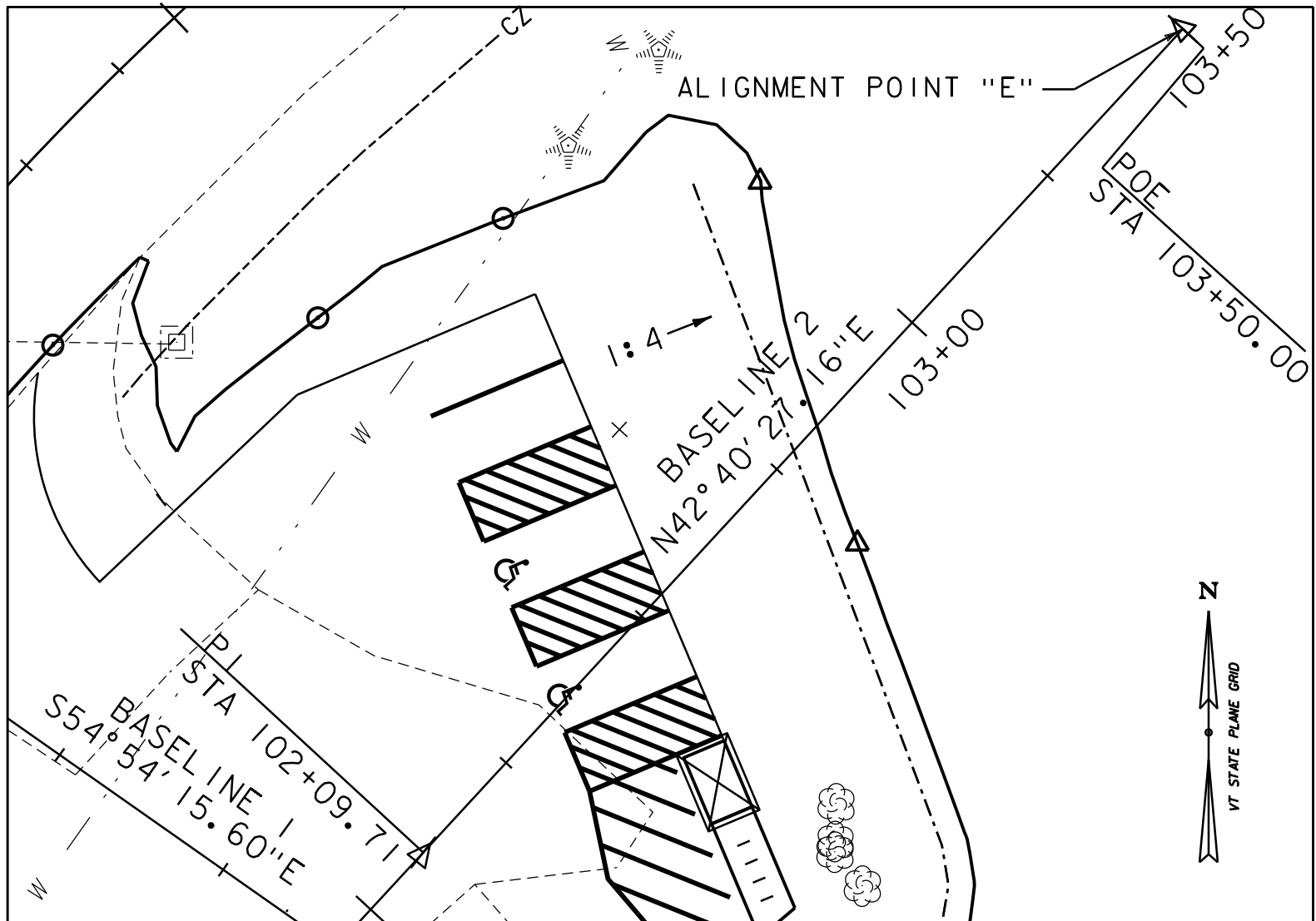


ALIGNMENT POINT A



ALIGNMENT POINTS B, C, D

ALIGNMENT POINTS			
POINT	NORTHING	EASTING	STATION
A	645792.7813	1644104.7413	100+00.00
B	645987.9363	1644160.4748	00+00.00
C	645934.9785	1644235.8381	00+92.11
D	645946.9672	1644246.8908	102+09.71
E	646050.1086	1644341.9810	103+50.00



ALIGNMENT POINT E

DATUM  
VERTICAL: NAVD 88 FT  
HORIZONTAL: NAD 83 (CORS) SPC(4400 VT)SFT

PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE  
PROJECT NUMBER: CMG PARK(37)  
FILE NAME: ...drawing\zllk350+1.dgn  
PROJECT LEADER: G. SANTY  
DESIGNED BY: G. BURGMEIER  
PLOT DATE: 3/28/2016  
DRAWN BY: G. BURGMEIER  
CHECKED BY: G. SANTY  
PROJECT TIE SHEET  
SHEET 11 OF 37





# EARTHWORKS



PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE	
PROJECT NUMBER: CMG PARK(37)	
FILE NAME: ...\\drawing\\zllk350frm.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: C. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
EARTHWORKS SHEET	SHEET 12 OF 37

# RIGHT - OF - WAY DETAIL SHEET

[illegible][illegible]

APPROVED: RYAN CLOUTIER DATE: SEPT 29, 2014  
CHIEF, PLANS & TITLES

PROJECT NAME: <b>E. MONTEPELIER PARK AND RIDE</b>	
PROJECT NUMBER: <b>CMG PARK (37)</b>	
FILE NAME: ...\\drawing\\zilk350_ROWDET.L.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: <b>G. SANTY</b>	DRAWN BY: <b>D. HARRINGTON</b>
DESIGNED BY: <b>D. HARRINGTON</b>	CHECKED <b>H. PETROVS</b>
<b>R.O.W. DETAIL SHEET 1</b>	<b>SHEET 13 OF 37</b>



1. R.O.W. LIMITS SHOWN ARE BASED ON PROJECT  
E. MONTPELIER STPG 028-3 (35) S.

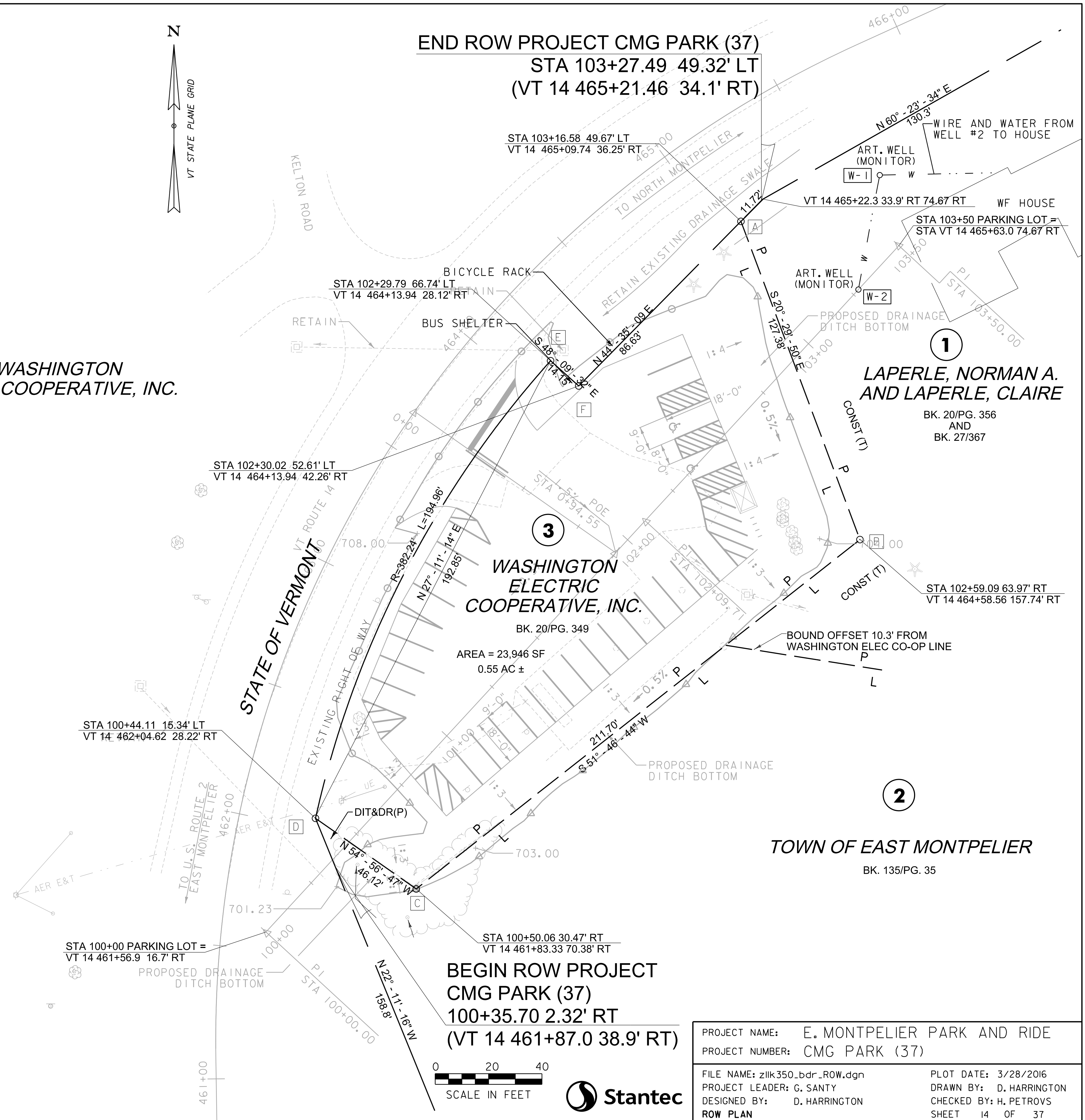
3. THE WASHINGTON ELECTRIC PARCEL SHOWN BELOW WAS PARCEL 15A OF THE ABOVE MENTIONED PROJECT.

4. PARCEL 3 PROPERTY LINES AND SURVEY INFORMATION WERE SUPPLIED FROM VTRANS AS USED IN PROJECT STPG 028 (35)S AND FROM DEED INFORMATION.

### PARCEL 3 STATION AND OFFSET REFERENCE

	PROJECT BASELINE	RT 14 BASELINE ENGLISH UNITS	RT 14 BASELINE METRIC UNITS
A	103+16.58 49.70' LT	465+09.74 36.25' RT	14+176.17 11.05M RT
B	102+59.09 63.97' RT	464+58.56 (BND) 157.74' RT	14+160.57 48.08M RT
C	100+50.06 30.47' RT	461+83.33 (1P) 70.38' RT	14+076.68 21.45M RT
D	100+43.94 15.24' LT	462+04.62 28.22' RT	14+083.17 8.60M RT
E	102+29.79 66.74' LT	464+13.94 28.12' RT	14+146.97 8.57M RT
F	102+30.00 52.59' LT	464+13.94 42.26' RT	14+146.97 12.88M RT

*N/F WASHINGTON  
ELECTRIC COOPERATIVE, INC.*



FOR RIGHT OF WAY USE ONLY

LINES SHOWN ON THIS PLAN AS EXISTING  
PROPERTY LINES (P/L) ARE BELIEVED TO  
BE ACCURATE BUT SHOULD NOT BE RELIED  
UPON FOR PURPOSES UNRELATED TO THE  
TOWN OF EAST MONTPELIER'S ACQUISITION  
OF LAND AND RIGHTS FOR THIS PROJECT.

PROJECT NAME:	E. MONTEPELIER PARK AND RIDE
PROJECT NUMBER:	CMG PARK (37)

FILE NAME: zlik350_bdr_ROW.dgn  
PROJECT LEADER: G. SANTY  
DESIGNED BY: D. HARRINGTON  
**ROW PLAN**

PLOT DATE: 3/28/2016  
DRAWN BY: D. HARRINGTON  
CHECKED BY: H. PETROVS  
SHEET 14 OF 37



LAYOUT POINT SUMMARY			
LEGEND: LP#X = LAYOUT POINT #X			
PT OF 15' RADIUS			
LAYOUT POINT	DESCRIPTION	COORDINATES	BASELINE 2 STATION
1	WEST END OF PARKING LOT	N: 645851.76 E: 1644159.12	STA. 100+80.24, 00.00' LT/RT
2	EAST END OF PARKING LOT	N: 645979.37 E: 1644276.77	STA. 102+53.79, 00.00' LT/RT
3	CORNER OF LOT	N: 645864.96 E: 1644147.80	STA. 100+82.25, 17.26' LT
4	CORNER OF LOT	N: 645879.95 E: 1644140.65	STA. 100+88.43, 32.69' LT
5	CORNER OF LOT	N: 645915.85 E: 1644155.40	STA. 101+24.82, 46.18' LT
6	CORNER OF LOT	N: 645951.72 E: 1644175.96	STA. 101+65.13, 55.37' LT
7	PCC OF 40' & 15' RADIUS	N: 645951.84 E: 1644167.47	STA. 101+59.46, 61.69' LT
8	PC OF 40' RADIUS	N: 645944.66 E: 1644153.42	STA. 101+44.66, 67.16' LT
9	CORNER OF LOT	N: 645980.86 E: 1644206.38	STA. 102+07.17, 52.75' LT
10	PC OF 30' RADIUS	N: 646007.08 E: 1644198.69	STA. 102+21.24, 76.19' LT
11	CORNER OF LOT	N: 646016.89 E: 1644260.90	STA. 102+70.62, 37.09' LT
12	CORNER OF LOT	N: 646004.29 E: 1644231.12	STA. 102+41.17, 50.45' LT
13	CORNER OF LOT	N: 645940.03 E: 1644293.40	STA. 102+36.14, 38.90' RT
14	CORNER OF LOT	N: 645836.27 E: 1644172.39	STA. 100+77.83, 20.26' RT

DEMOLITION AND DISPOSAL OF BUILDING  
STA. 101+30, RT TO 102+11, RT

REMOVAL OF EXISTING CURB  
STA. 100+46.68, 6.47' RT - 100+89.62, 36.45' RT  
STA. 101+18.34, 33.71' RT - 101+27.43, 34.61' RT

REMOVAL OF EXISTING FENCE  
STA. 100+45.16, 3.05' LT - 100+89.62, 36.45' RT

REMOVAL AND DISPOSAL OF GUIDE POSTS  
STA. 100+40.00, 35.28' RT  
STA. 100+41.83, 8.16' RT

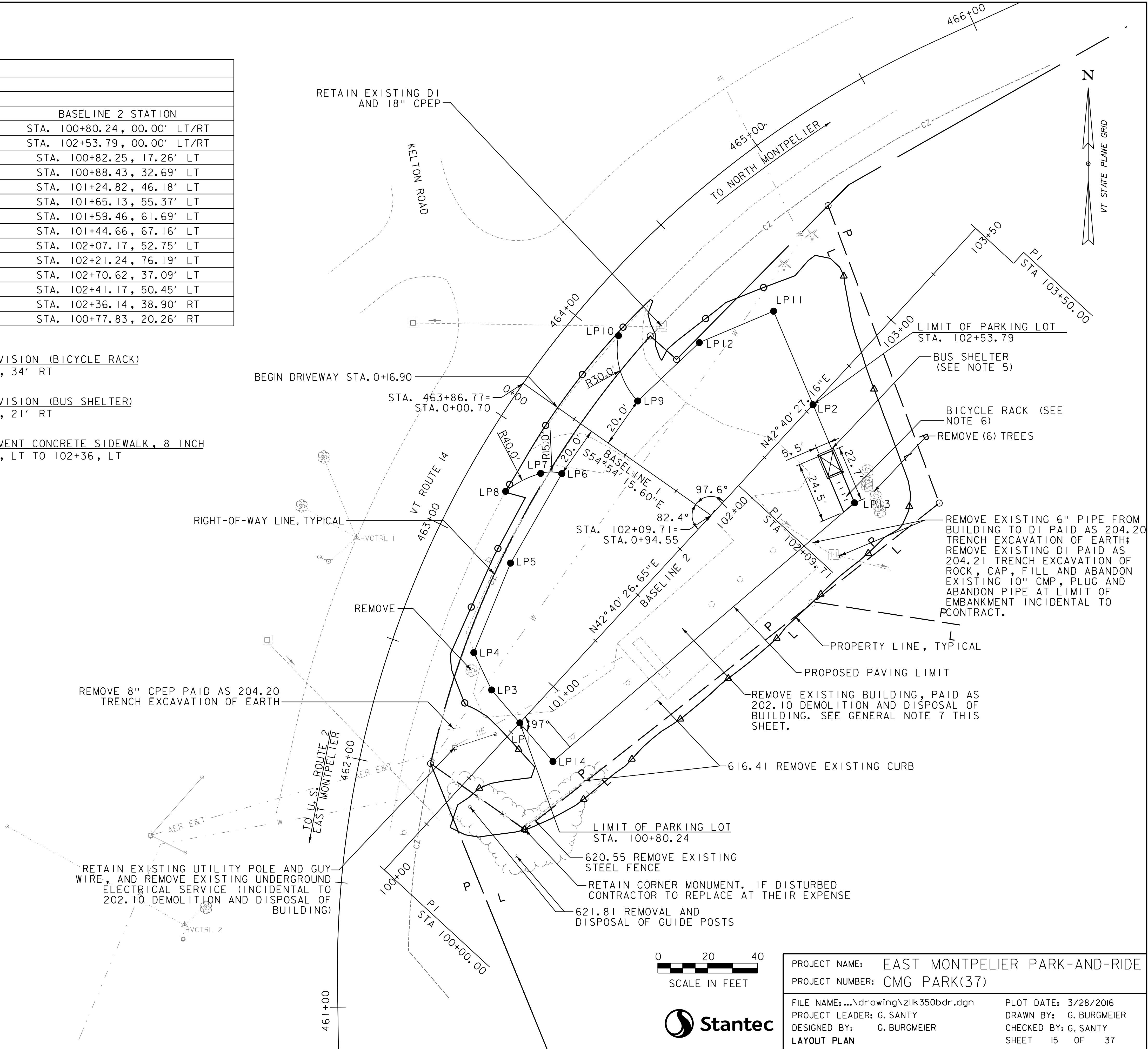
GENERAL NOTES:

- FOR A SUMMARY OF CONTROL POINTS AND TRAVERSE TIES SEE PROJECT TIE SHEET. FOR ALIGNMENT LAYOUT POINTS SEE LAYOUT POINT SUMMARY TABLE ABOVE.
- FOR SIGNS AND PAVEMENT MARKINGS SEE SIGNING AND PAVEMENT MARKING PLAN.
- FOR PARK-AND-RIDE LIGHTING SEE LIGHTING PLAN.
- DURING CONSTRUCTION THE EXISTING PARK-AND-RIDE SHALL BE CLOSED TO ALL TRAFFIC.
- THE BUS SHELTER SHALL BE PAID UNDER ITEM 900.645. SPECIAL PROVISION (BUS SHELTER). SEE DETAILS ON BUS SHELTER DETAIL SHEETS. FOR DETAIL OF PAY LIMITS UNDER THE SPECIAL PROVISION (BUS SHELTER) ITEM, REFER TO BUS SHELTER DETAIL SHEETS.
- THE BICYCLE RACK SHALL BE PAID FOR AS 900.620 SPECIAL PROVISION (BICYCLE RACK). FOR BICYCLE RACK DETAILS, SEE DETAILS SHEET.
- EXISTING BUILDING:  
FOUNDATION WALLS TO BE REMOVED TO EXISTING GROUND LEVEL. CONCRETE SLAB SHALL BE FRACTURED, COMPACTED AND LEFT IN PLACE. NO EXCAVATION OF THE FOUNDATION AND SLAB IS PERMITTED. MAXIMUM DIAMETER FRACTURED CONCRETE 6 INCH.

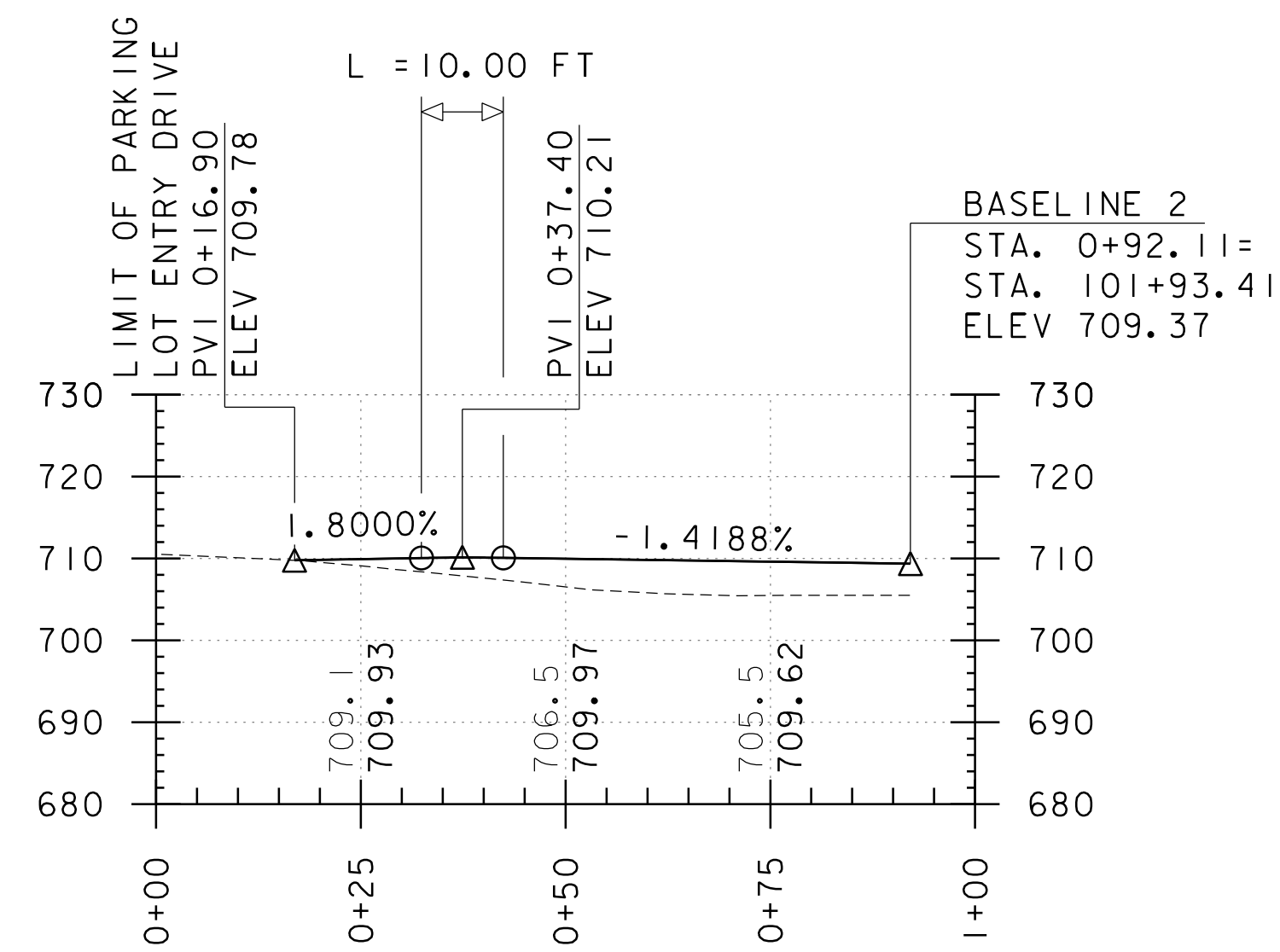
SPECIAL PROVISION (BICYCLE RACK)  
STA. 102+35, 34' RT

SPECIAL PROVISION (BUS SHELTER)  
STA. 102+41, 21' RT

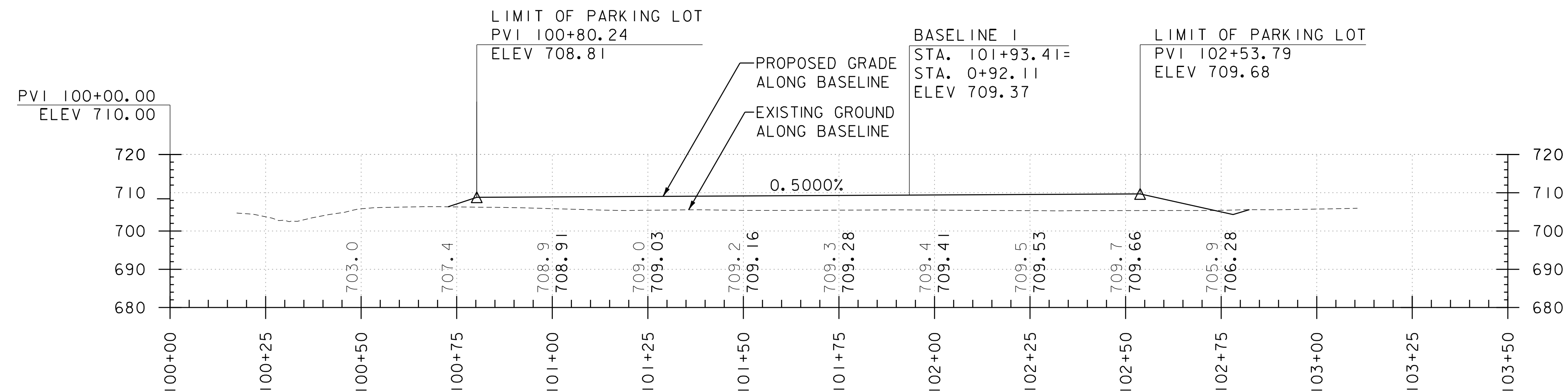
PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH  
STA. 102+29, LT TO 102+36, LT



PROJECT NAME:	EAST MONTEPELIER PARK-AND-RIDE
PROJECT NUMBER:	CMG PARK(37)
FILE NAME: ...\\drawing\\zlik350bdr.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
LAYOUT PLAN	SHEET 15 OF 37



PROFILE BASELINE 1

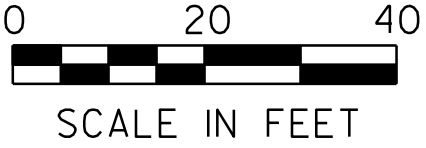
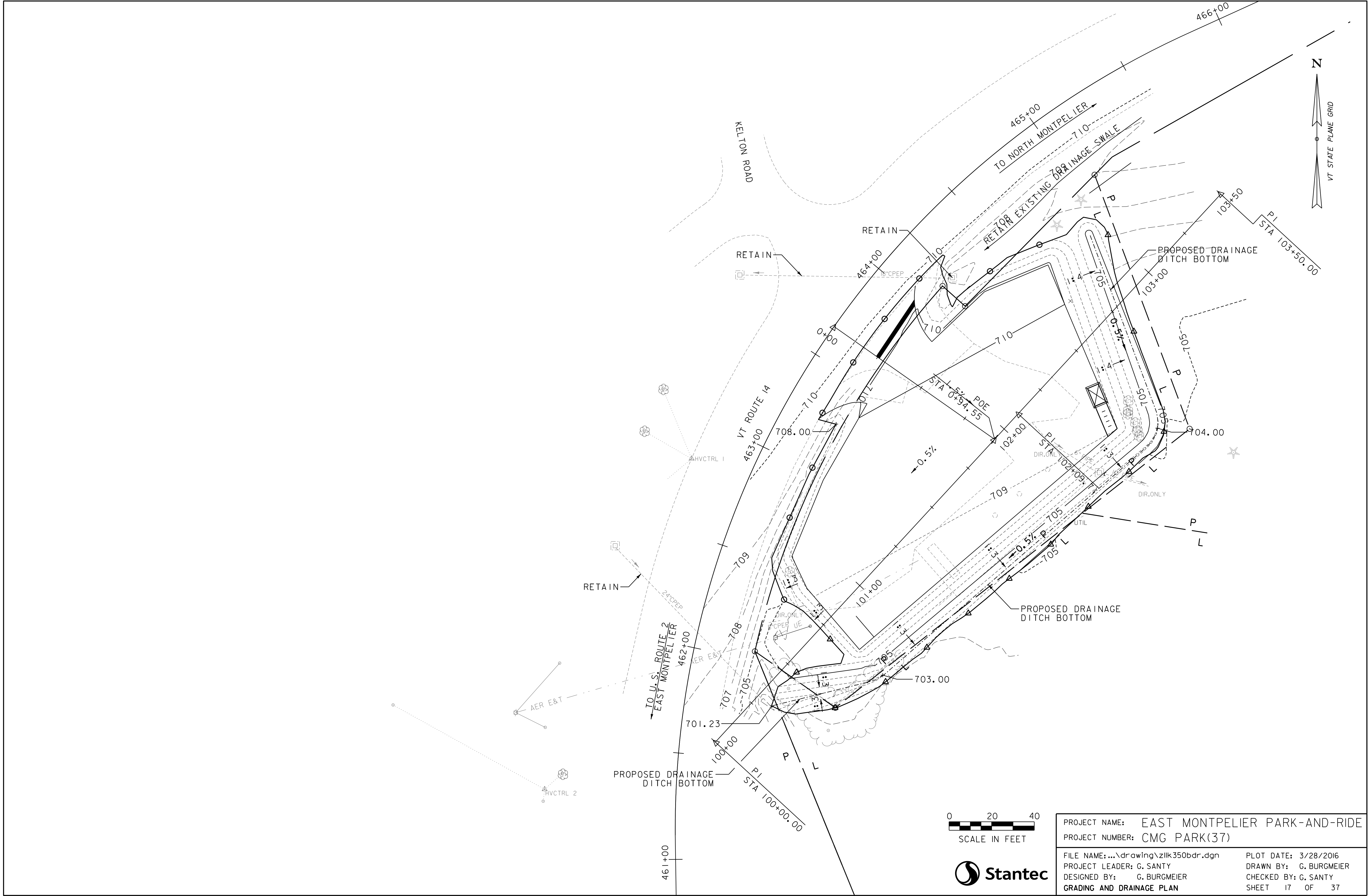


PROFILE BASELINE 2

- NOTES:
1. ELEVATIONS SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG PROFILE GRADE LINE.
  2. ELEVATIONS SHOWN TO THE NEAREST HUNDRETH ARE FINISH GRADE ALONG PROFILE GRADE LINE.
  3. ELEVATIONS AND STATIONS ARE IN FEET.



PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE	
PROJECT NUMBER: CMG PARK (37)	
FILE NAME: zlk350pro.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: STANTEC
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
PROFILE SHEET	SHEET 16 OF 37



PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE	
PROJECT NUMBER: CMG PARK(37)	
FILE NAME: ...drawing\zlik350bdr.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
GRADING AND DRAINAGE PLAN	SHEET 17 OF 37



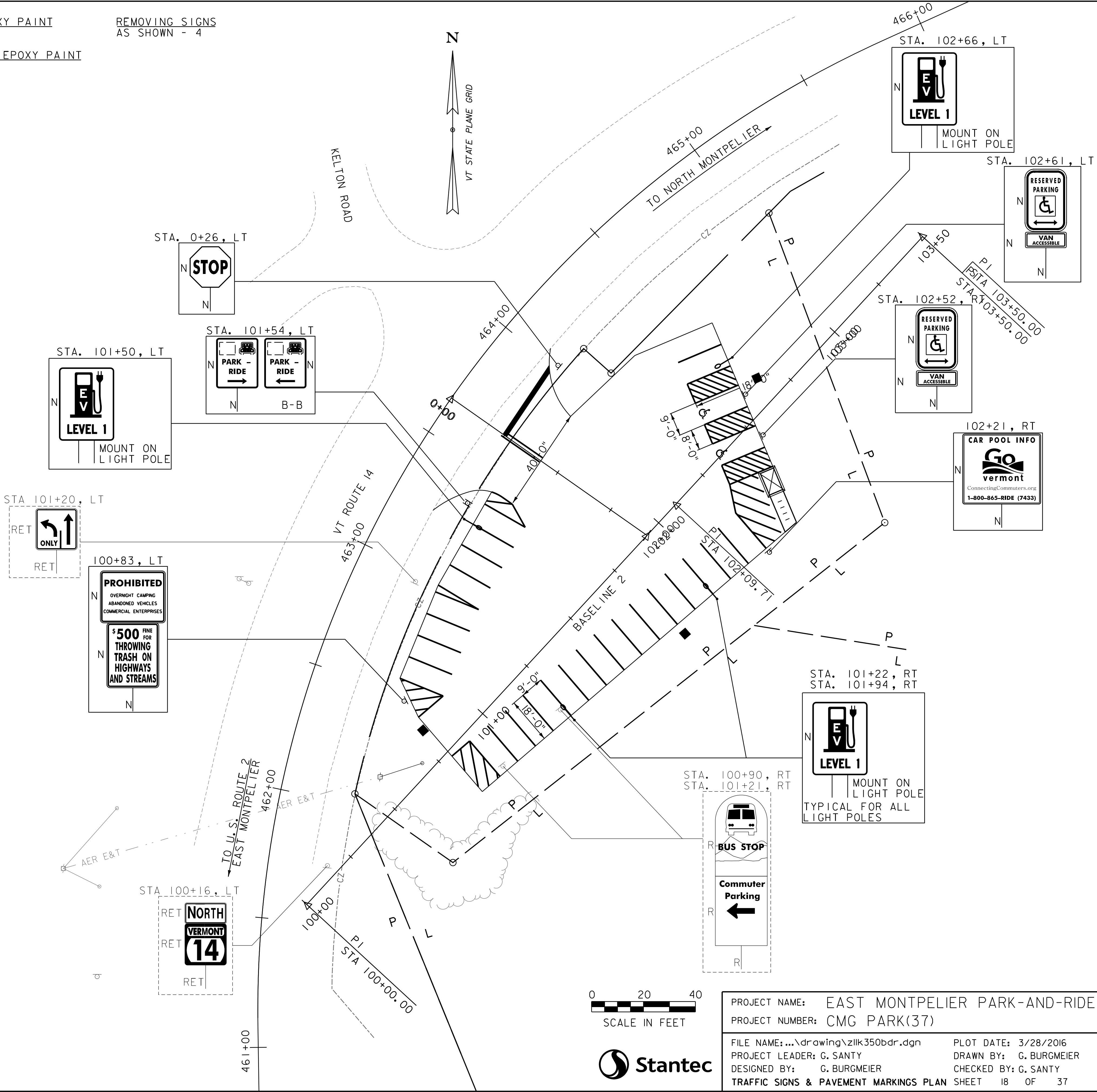
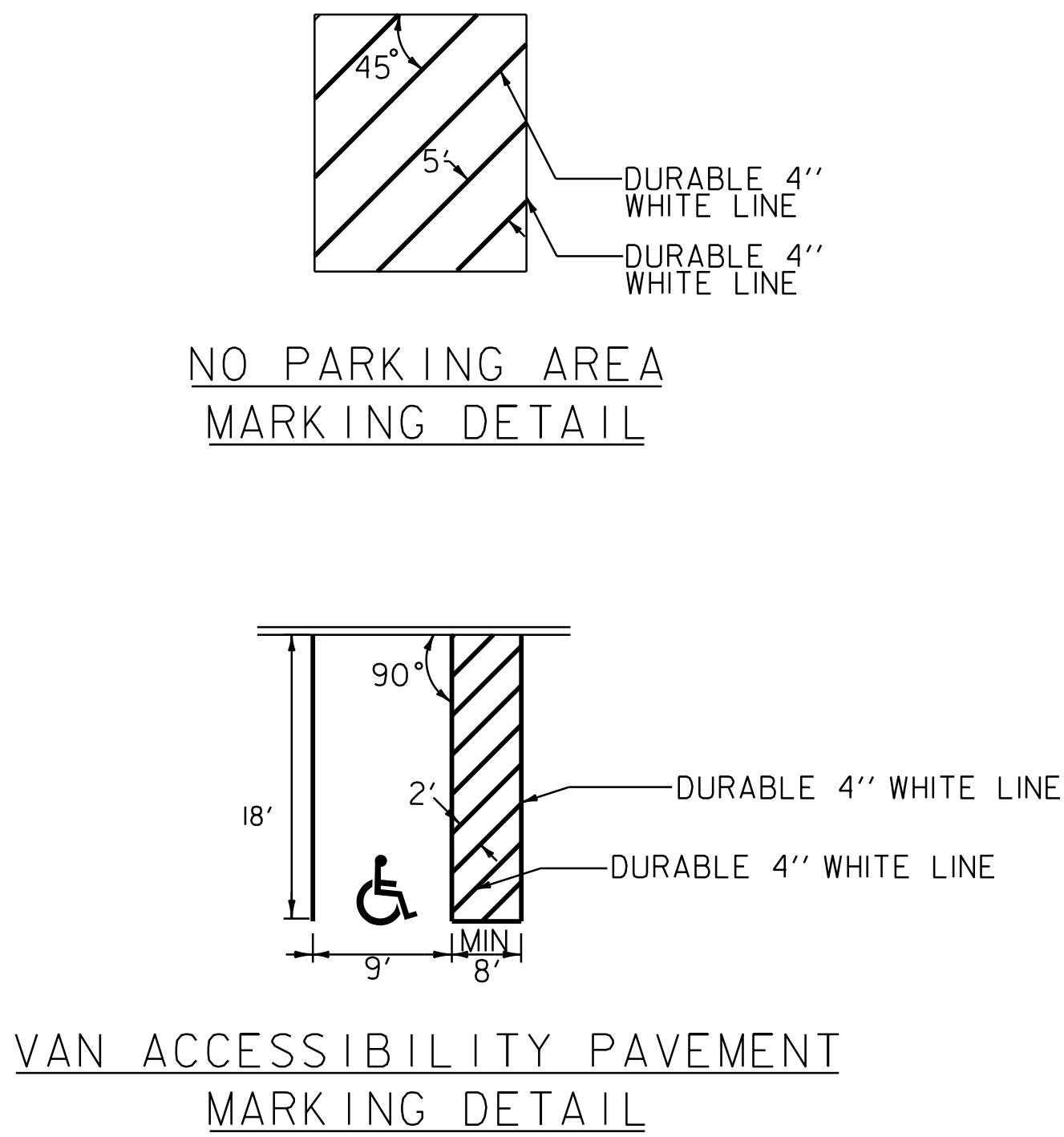
DURABLE 4" WHITE LINE, EPOXY PAINT  
STA. 100+83 TO 102+75, SOLID LT & RT  
(PARKING SPACES AND DIAGONALS)

DURABLE 4" YELLOW LINE, EPOXY PAINT  
STA. 0+26 TO 0+42, LT (DOUBLE CENTERLINE)

DURABLE 24" STOP BAR, EPOXY PAINT  
STA. 0+25, LT (26 FEET)

DURABLE LETTER OR SYMBOL, EPOXY PAINT  
STA. 102+36, LT &  
STA. 102+43, LT &

REMOVING SIGNS  
AS SHOWN - 4



NOTES

- FOR ANY TOWN HIGHWAY OR STREET DETAILS, SEE VTrans STANDARD E-193.
- FOR PAVEMENT MARKING DETAILS, SEE VTrans STANDARDS E-191, E-192, & E-193.

SIGN LEGEND

- N = NEW  
R = REMOVE  
RET = RETAIN  
B-B = BACK-TO-BACK

0 20 40  
SCALE IN FEET



PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE  
PROJECT NUMBER: CMG PARK(37)

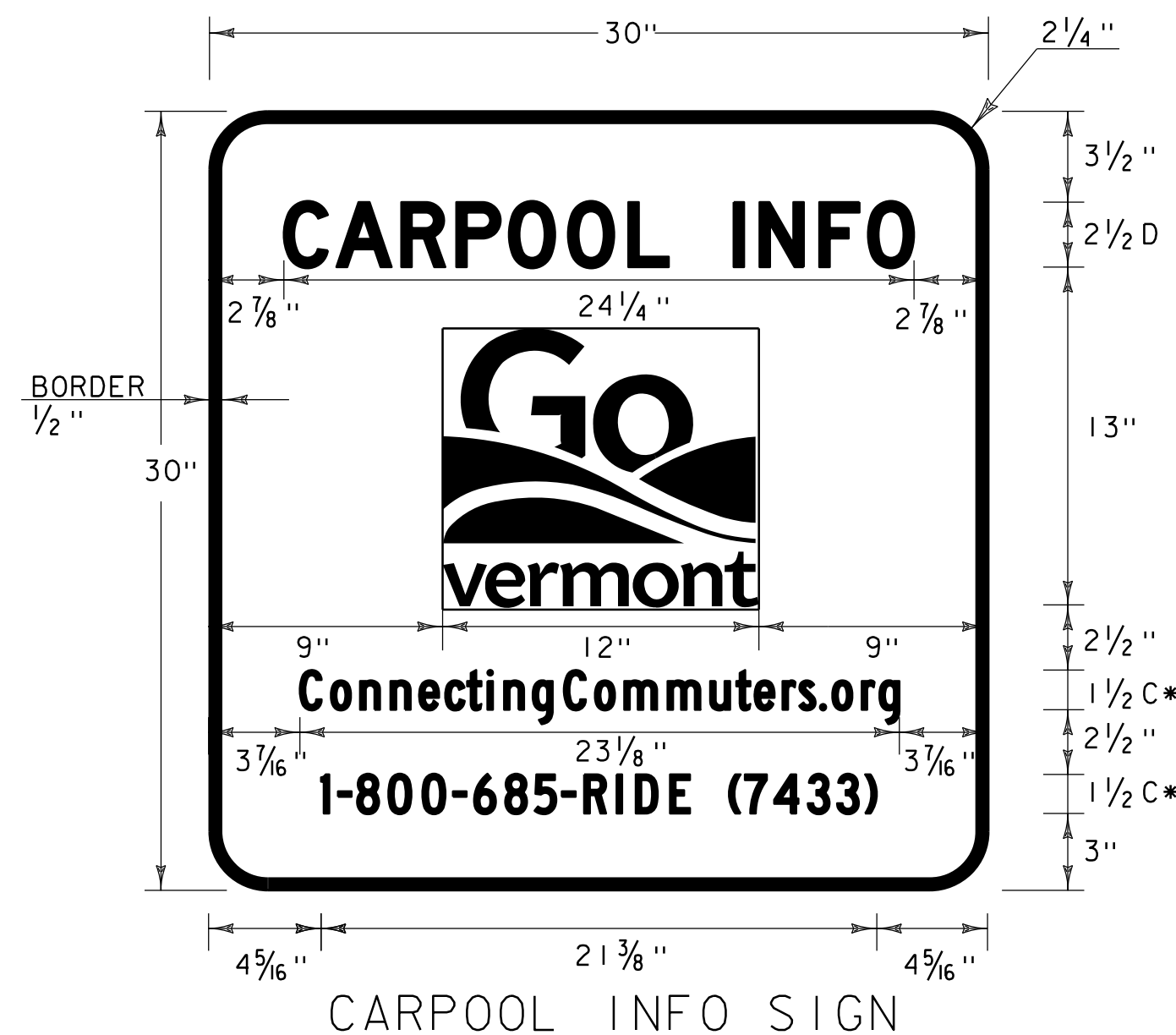
FILE NAME: ...drawing\zlik350bdr.dgn  
PROJECT LEADER: G. SANTY  
DESIGNED BY: G. BURGMEIER  
TRAFFIC SIGNS & PAVEMENT MARKINGS PLAN SHEET 18 OF 37

PLOT DATE: 3/28/2016  
DRAWN BY: G. BURGMEIER  
CHECKED BY: G. SANTY



# TRAFFIC SIGN SUMMARY SHEET



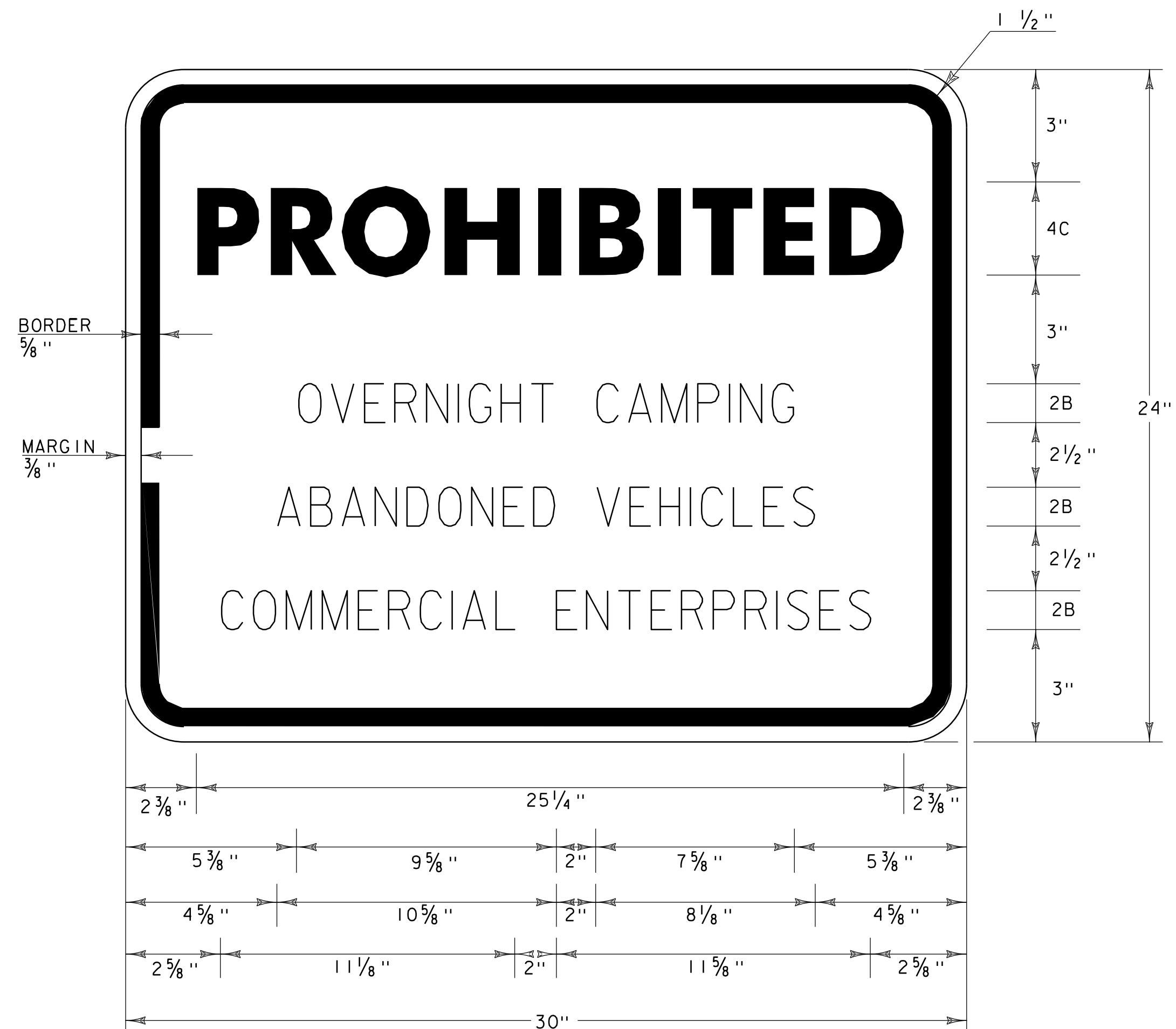


CARPOOL INFO SIGN

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)  
(MINIMUM TYPE IX) WITH BLUE BACKGROUND  
(RETROREFLECTIVE) (MINIMUM TYPE III)

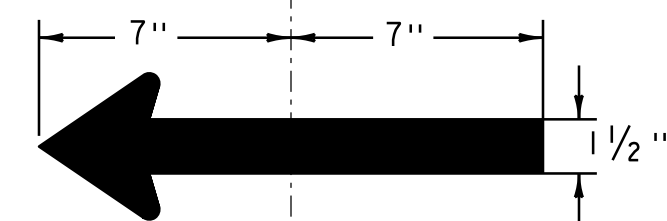
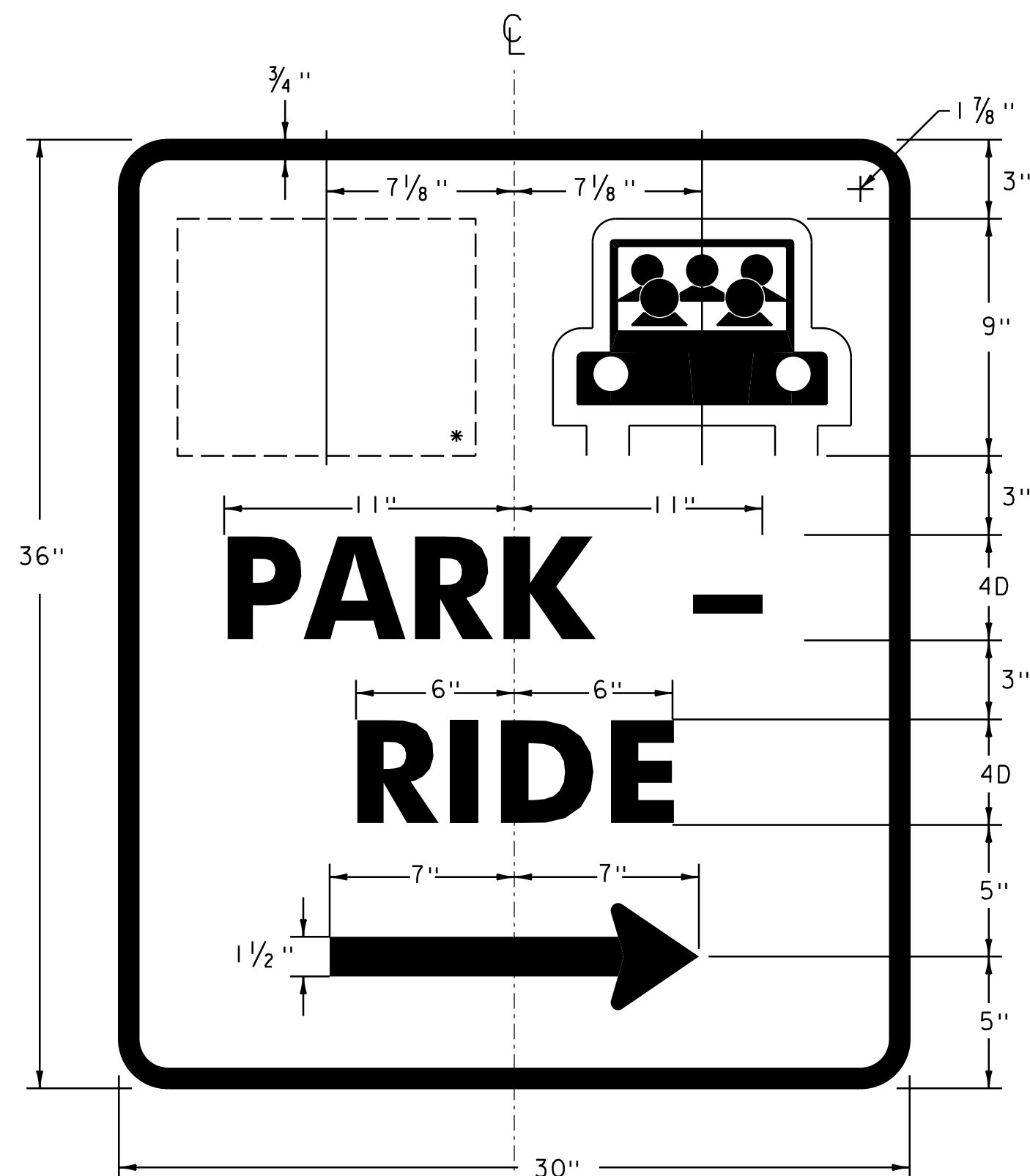
NOTE: THE "GO VERMONT" LOGO WILL BE PROVIDED TO THE CONTRACTOR BY  
VAOT IN JPEG FORMAT.

•INCREASE SPACING BY 60%



VR-032A

COLOR: BLACK TEXT ON REFLECTORIZED WHITE BACKGROUND

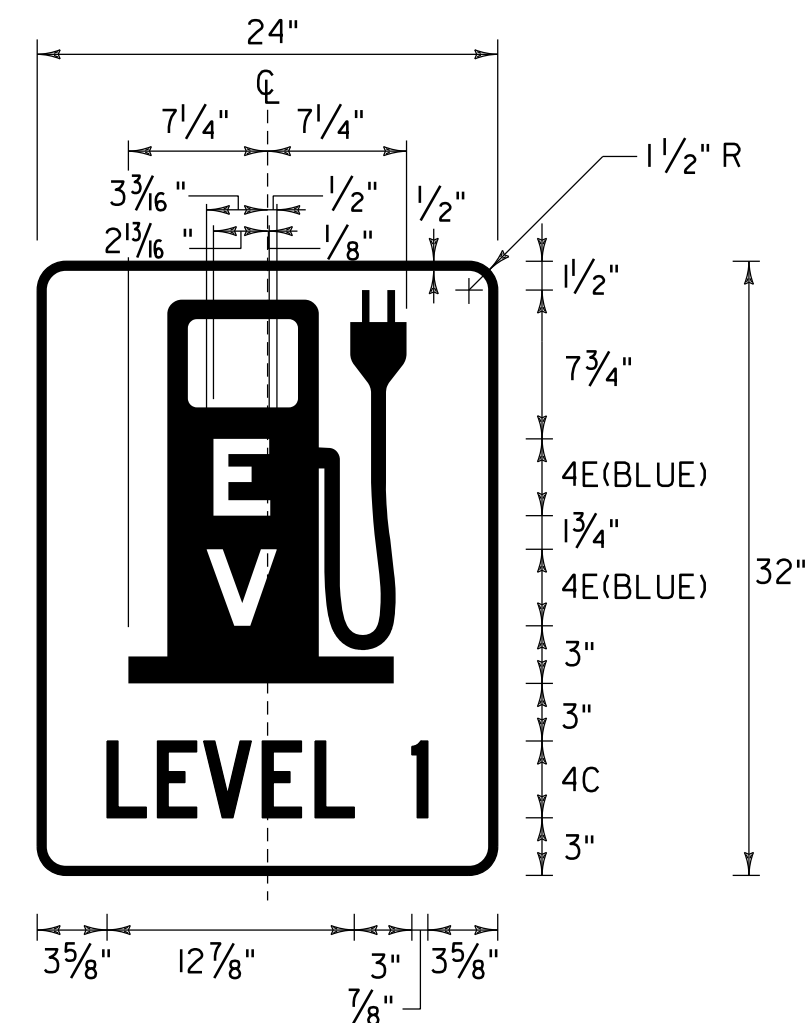


D4-2

COLOR: WHITE (REFL.) LEGEND, ARROW & BORDER  
WHITE & GREEN SYMBOL  
GREEN (REFL.) BACKGROUND

*AREA DESIGNATED FOR TRANSIT PICTOGRAPH

NOTE: THE TRANSIT PICTOGRAPH WILL BE PROVIDED TO THE CONTRACTOR BY THE  
TRANSIT COMPANY ASSOCIATED WITH THE CORRESPONDING PARK AND RIDE IN  
JPEG FORMAT.



EV OUTLET, LEVEL 1 - SIGN DETAIL

COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)  
(MINIMUM TYPE IX) WITH BLUE BACKGROUND  
(RETROREFLECTIVE) (MINIMUM TYPE III)

## TRAFFIC SIGN NOTES

- ALL SIGN LETTERING, DIGITS, ARROWS, AND DESIGN OF SYMBOLS FOR SIGNS REFERENCED IN THESE PLANS SHALL CONFORM WITH THE "STANDARD ALPHABET FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AS ADOPTED BY THE U.S. DEPARTMENT OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) UNLESS OTHERWISE DETAILED WITHIN THESE PLANS.
- ALL COLORS SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) AND APPROVED BY FHWA UNLESS OTHERWISE NOTED.
- ALL SHEETING SHALL BE TYPE III MINIMUM PER 750.08 RETROREFLECTIVE SHEETING.
- UNLESS OTHERWISE DETAILED ON THE PLANS, ALL SIGN BASE MATERIALS SHALL BE FLAT SHEET ALUMINUM WITH THE FOLLOWING MINIMUM THICKNESSES:

SIZES				
	24" X 10"	36" X 12"		
	24" X 12"	42" X 12"		
	30" X 12"	48" X 12"		
	24" X 18"	36" X 18"		
	24" X 24"	54" X 12"	48" X 18"	
	24" X 30"	36" X 24"	48" X 24"	
9" X 12"	30" X 15"	30" X 42"	48" X 30"	
12" X 12"	30" X 18"	36" X 36"	48" X 42"	
18" X 18"	30" X 30"	36" X 48"	48" X 48"	
21" X 15"	30" X 42"	36" X 54"	48" X 60"	
THICKNESS	0.080"	0.080"	0.100"	0.125"

PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE

PROJECT NUMBER: CMG PARK(37)

FILE NAME: ...drawing\zllk350+yp.dgn

PLOT DATE: 3/28/2016

PROJECT LEADER: G. SANTY

DRAWN BY: STANTEC

DESIGNED BY: G. BURGMIEIER

CHECKED BY: G. SANTY

TRAFFIC SIGN DETAIL SHEET

SHEET 20 OF 37



WIRED CONDUIT (2") (SCH 80)

LOCATION	
100+55.3, LT - 100+79.7, LT	
100+79.7, LT - 101+50.3, LT	
100+79.7, LT - 101+22.2, RT	
101+22.2, RT - 101+93.7, RT	
101+93.7, RT - 102+66.1, LT	
100+79.7, LT - 101+75.0, RT	
101+75.0, RT - 102+66.0, LT	

DESCRIPTION	
UTILITY POLE TO METER (POWER SERVICE LINE)	
METER TO SL-1 (FOR LEVEL I OUTLET)	
METER TO SL-2 (FOR LEVEL I OUTLET)	
SL-2 TO SL-3 (FOR LEVEL I OUTLET)	
SL-3 TO SL-4 (FOR LEVEL I OUTLET)	
METER TO JUNCTION BOX (FOR LEVEL II OUTLET)	
JUNCTION BOX TO JUNCTION BOX (FOR LEVEL II OUTLET)	

JUNCTION BOX

LOCATION	OFFSET
102+66.0	10.0', LT
101+75.0	35.0', RT

LIGHT POLE BASE

POLE NO.	LOCATION	OFFSET
SL-1	101+56.5	57.5', LT
SL-2	101+22.2	27.7', RT
SL-3	101+93.7	36.4', RT
SL-4	102+66.1	22.4', LT

LIGHT POLE

POLE NO.	LOCATION	OFFSET
SL-1	101+50.3	56.6', LT
SL-2	101+22.2	27.7', RT
SL-3	101+93.7	36.4', RT
SL-4	102+66.1	22.4', LT

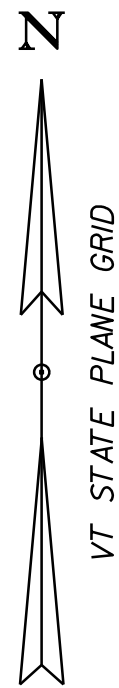
POWER DROP STANCHION, STREET LIGHTING

100+79.7, LT

SPECIAL PROVISION (LUMINAIRE, LED)

SPECIAL PROVISION (EV LEVEL I - 120V 20A OUTLET)

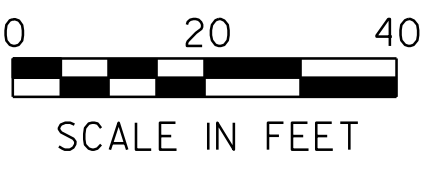
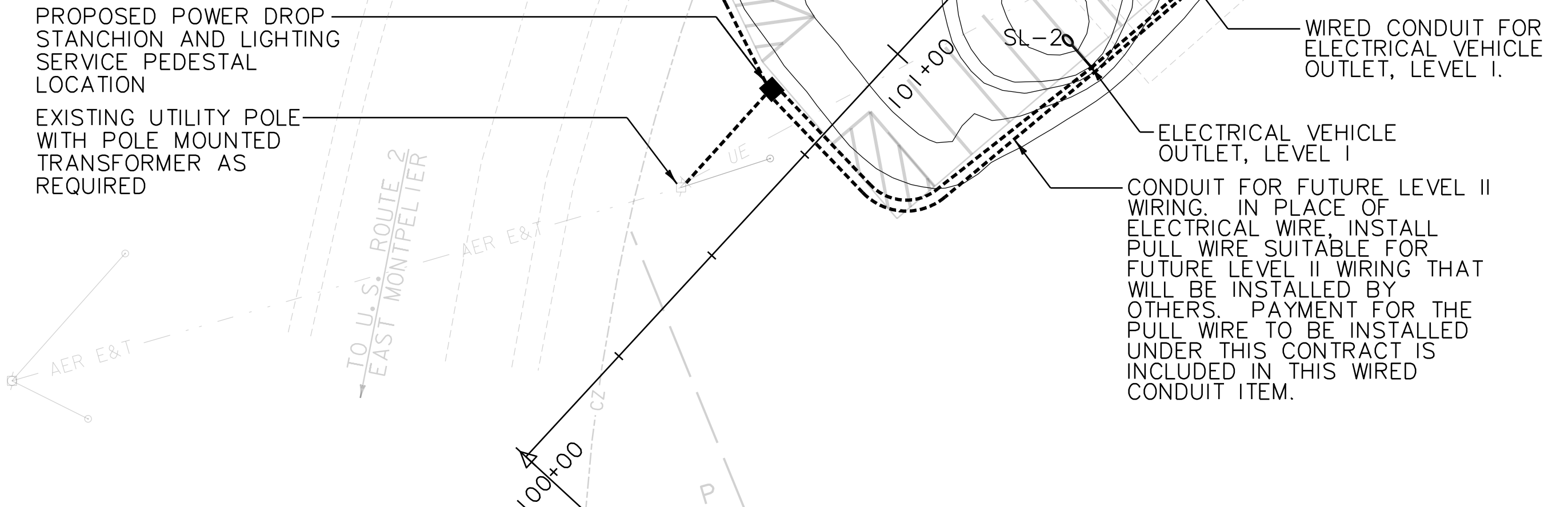
POLE NO.	LOCATION	OFFSET	NO. OF LUMINAIRES
SL-1	101+56.5	57.5', LT	1
SL-2	101+22.2	27.7', RT	1
SL-3	101+93.7	36.4', RT	1
SL-4	102+66.1	22.4', LT	1



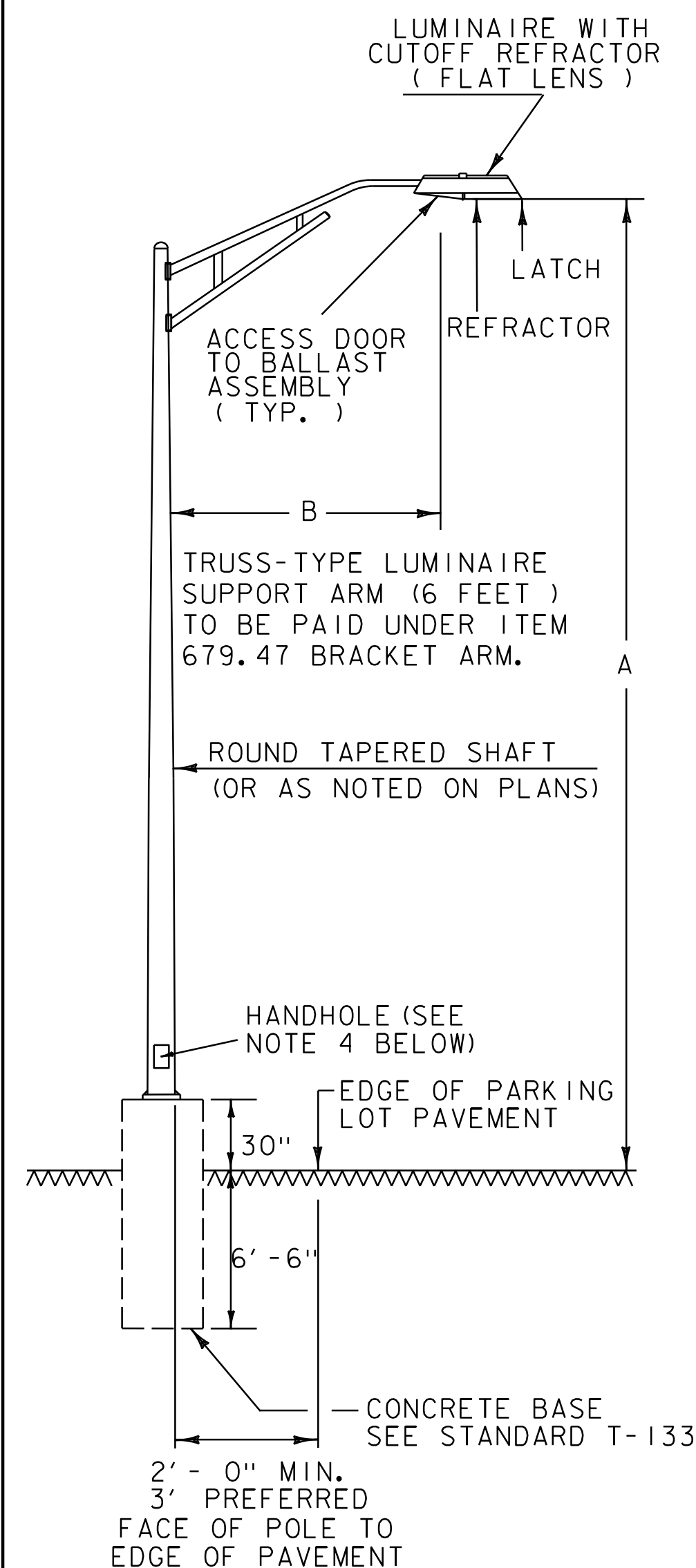
STREET LIGHTING LEGEND	
	TYPE A & B STREET LIGHT
	WIRED CONDUIT
	ELECTRIC METER & POWER STANCHION

SITE LIGHTING SCHEDULE					
SITE LIGHT NO.	TYPE	LUMINAIRE		LUMINAIRE & ARM QUANTITY	ARM STYLE LENGTH OF ARM
		WATTS	TYPE		
SL-1	B	51	LED	1	6'
SL-2	A	51	LED	1	6'
SL-3	A	51	LED	1	6'
SL-4	A	51	LED	1	6'

STATISTICS					
Description	Avg	Max	Min	Max/Min	Avg/Min
p.lot	1.0 fc	2.7 fc	0.3 fc	9.0:1	3.3:1



PROJECT NAME:	EAST MONTPELIER PARK-AND-RIDE	PLOT DATE:	3/28/2016
PROJECT NUMBER:	CMG PARK(37)	DRAWN BY:	M. CROWLEY
FILE NAME:	zlik3501tgbdr.dgn	CHECKED BY:	G. SANTY
PROJECT LEADER:	G. SANTY	SHEET	21 OF 37
DESIGNED BY:	M. CROWLEY	LIGHTING AND PHOTOMETRIC PLAN	



#### DIMENSIONS:

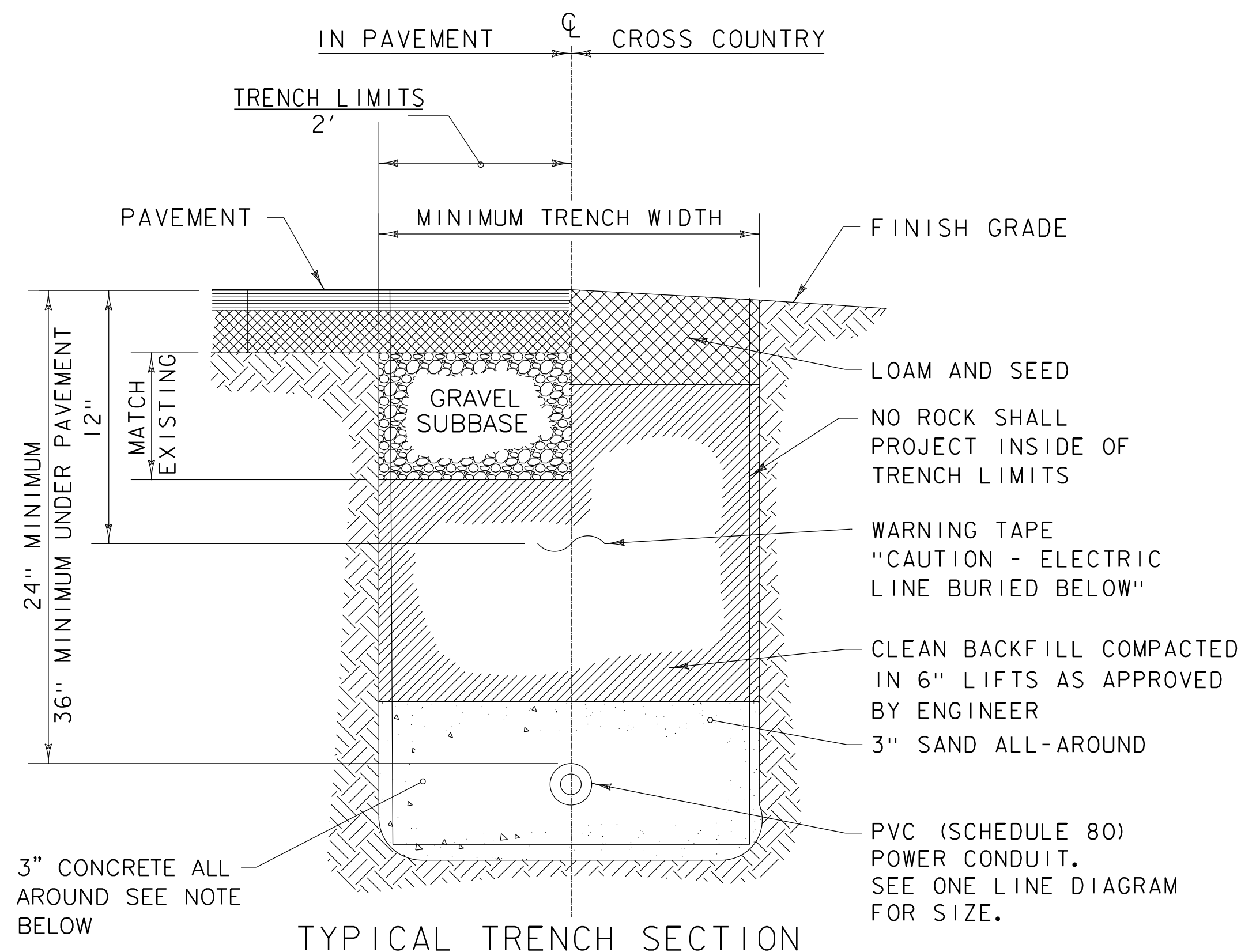
A = MOUNTING HEIGHT - 18.5'  
 B = LUMINAIRE SUPPORT ARM LENGTH - 6'  
 C = POLE HEIGHT - 16'

#### TYPE 'A' & 'B' SITE LIGHTS

NOT TO SCALE

#### GENERAL NOTES:

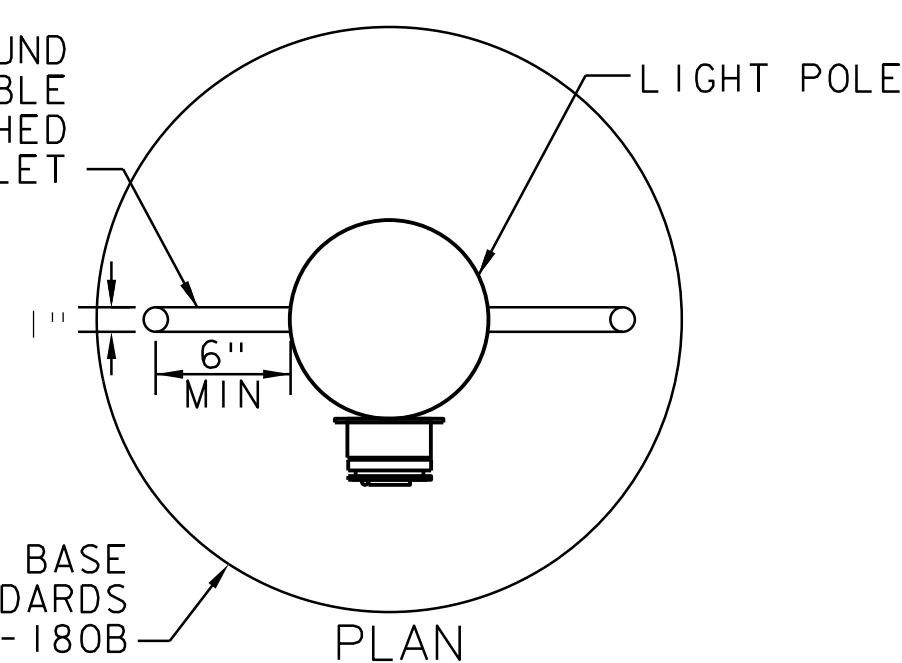
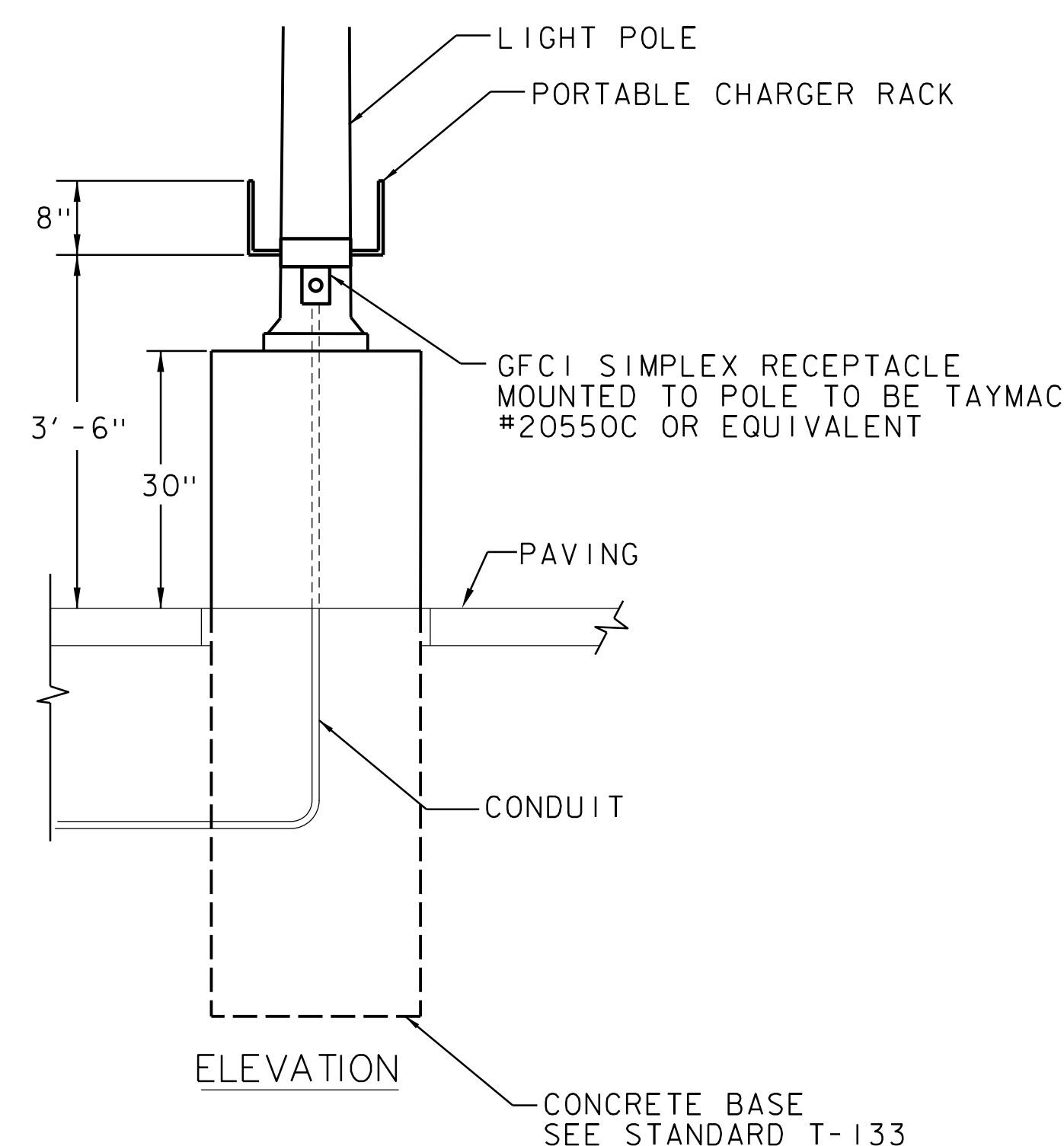
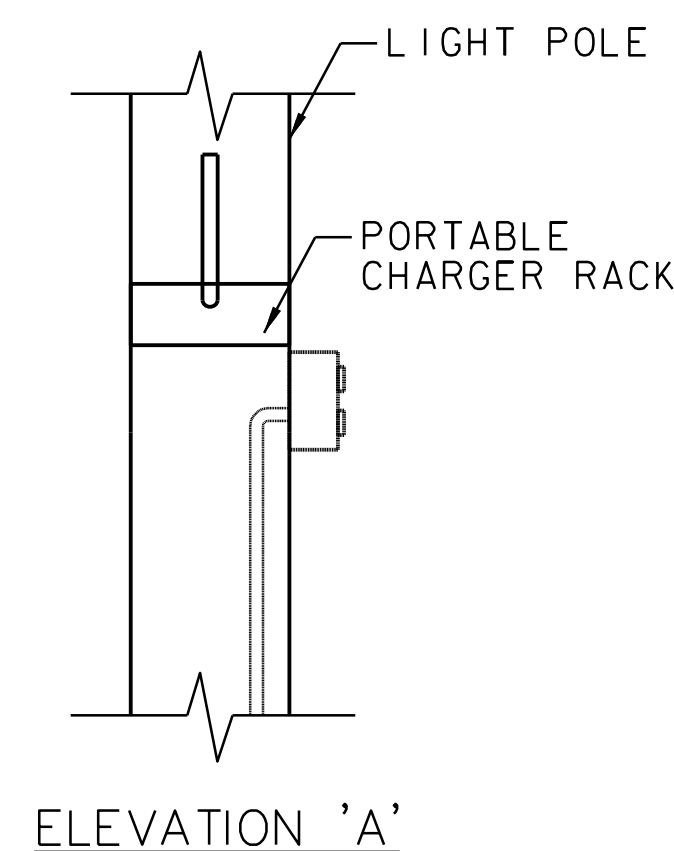
1. ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (N.E.C.) LATEST EDITION.
2. COORDINATE ALL LIGHTING FIXTURE LOCATIONS AND OTHER APPURTENANCES.
3. ALL ELECTRICAL WORK SHALL BE CAREFULLY COORDINATED WITH THE WORK OF OTHER TRADES.
4. LIGHT POLE HANDHOLE LOCATION MUST BE COORDINATED TO ACCOMMODATE THE PORTABLE CHARGER RACK AND RECEPTACLE.



#### TYPICAL TRENCH SECTION

NOT TO SCALE

NOTE:  
 PROVIDE 3" CONCRETE ENCASEMENT AROUND PVC CONDUITS AT ALL DRIVEWAY CROSSINGS TO 5' BEYOND EDGE OF PAVEMENT.  
 PVC CONDUITS SHALL PASS THROUGH SLEEVES AT ALL ROAD CROSSINGS (TYPICAL).



#### SPECIAL PROVISION (EV LEVEL 1 - 120V 20A OUTLET)

NOT TO SCALE

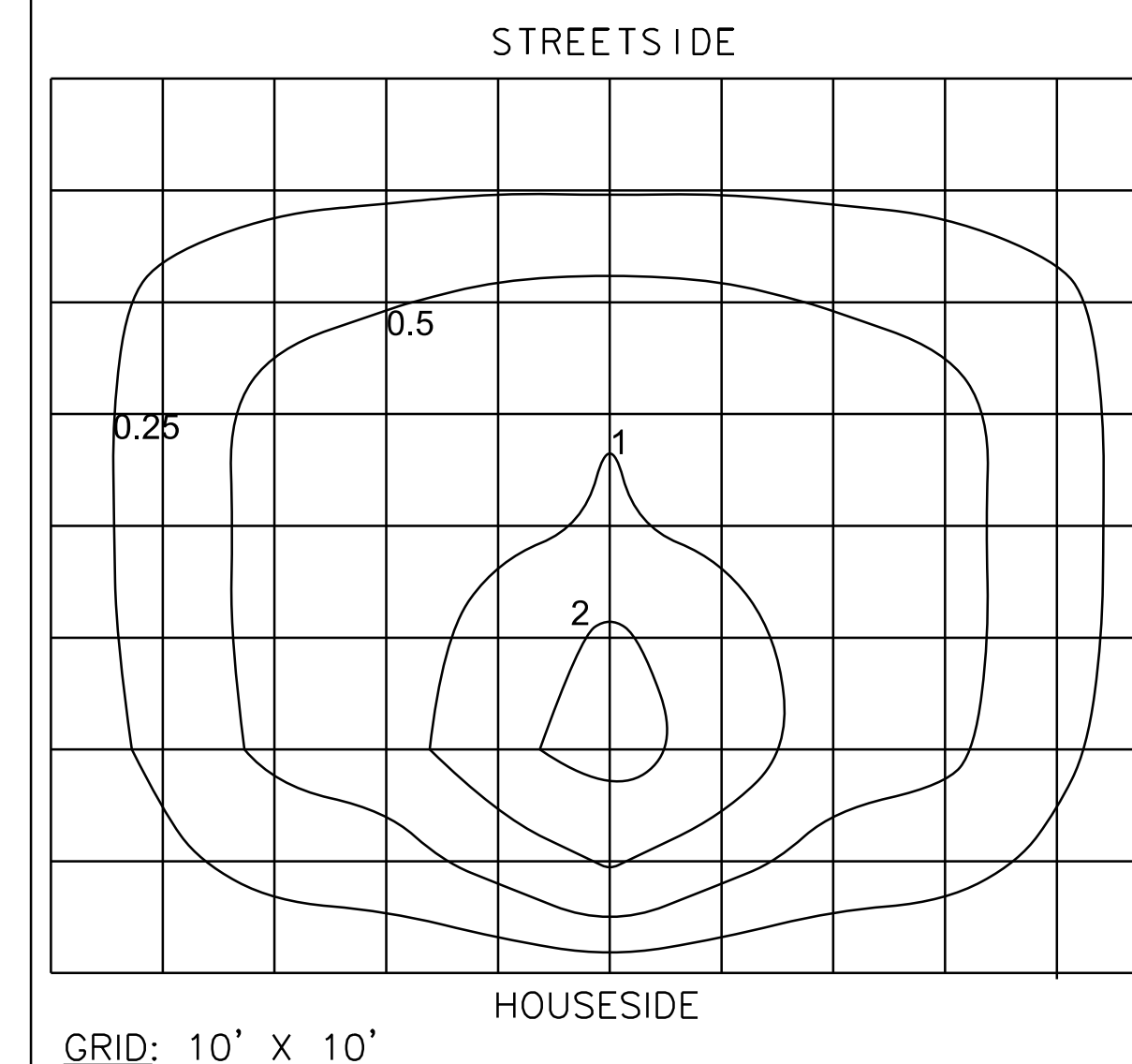
LUMINAIRE:  
 LENS FINISH: CLEAR  
 FLAT GLASS

HOUSING: ALUMINUM

LAMP:  
 TYPE: 40 LEDS

ANSI/IES TYPE:  
 TYPE IV CUT-OFF OPTICS  
 WITH HOUSE SIDE SHIELD

CREE: STR-LWY-4MB-HT-04-E-UL-BZ-525-40K-SC- (PR)



#### FIXTURE TYPE 'A'

#### ISO-FOOTCANDLE DATA

NO SCALE

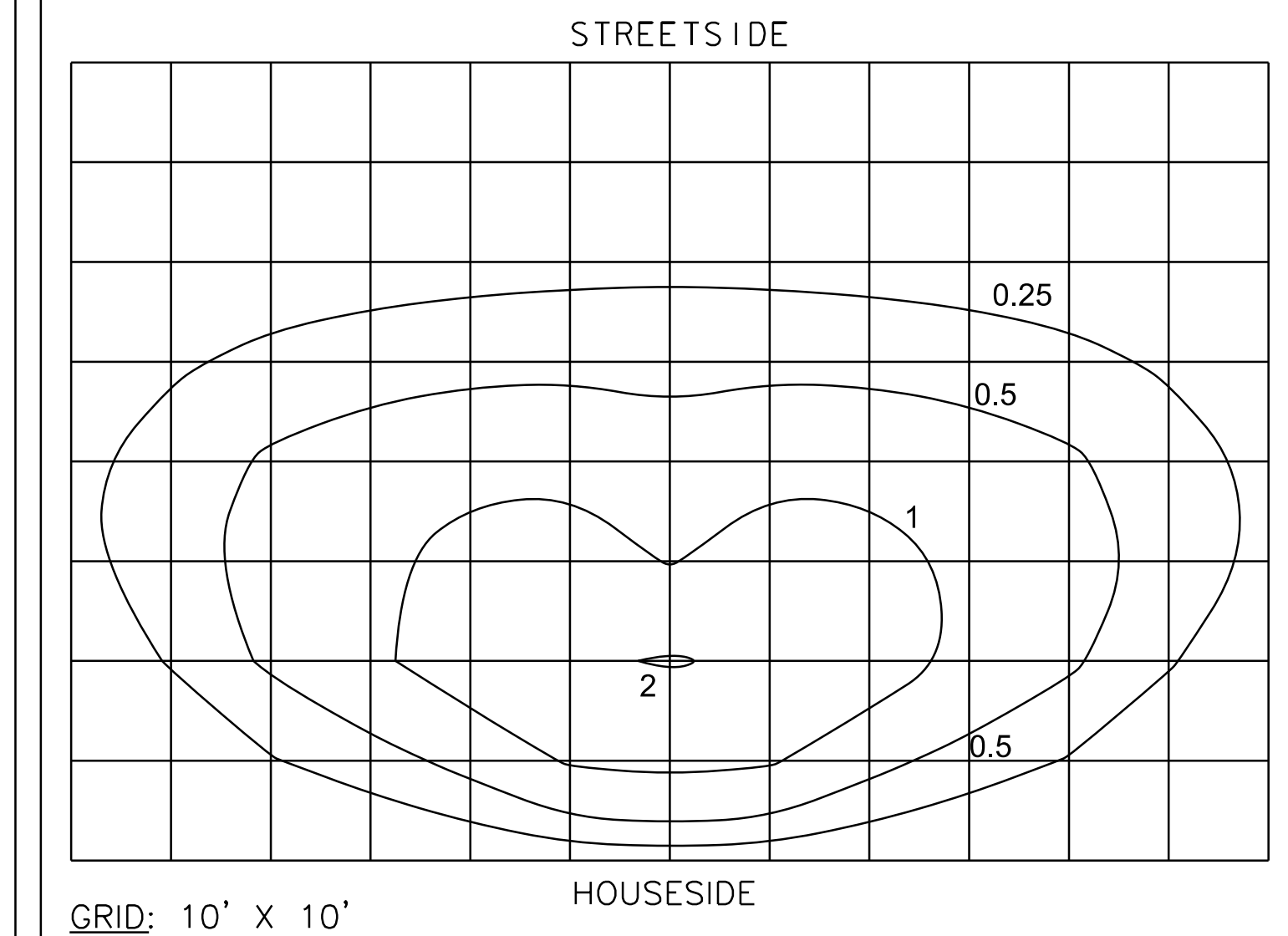
LUMINAIRE:  
 LENS FINISH: CLEAR  
 FLAT GLASS

HOUSING: ALUMINUM

LAMP:  
 TYPE: 40 LEDS

ANSI/IES TYPE:  
 TYPE III CUT-OFF OPTICS  
 WITH HOUSE SIDE SHIELD

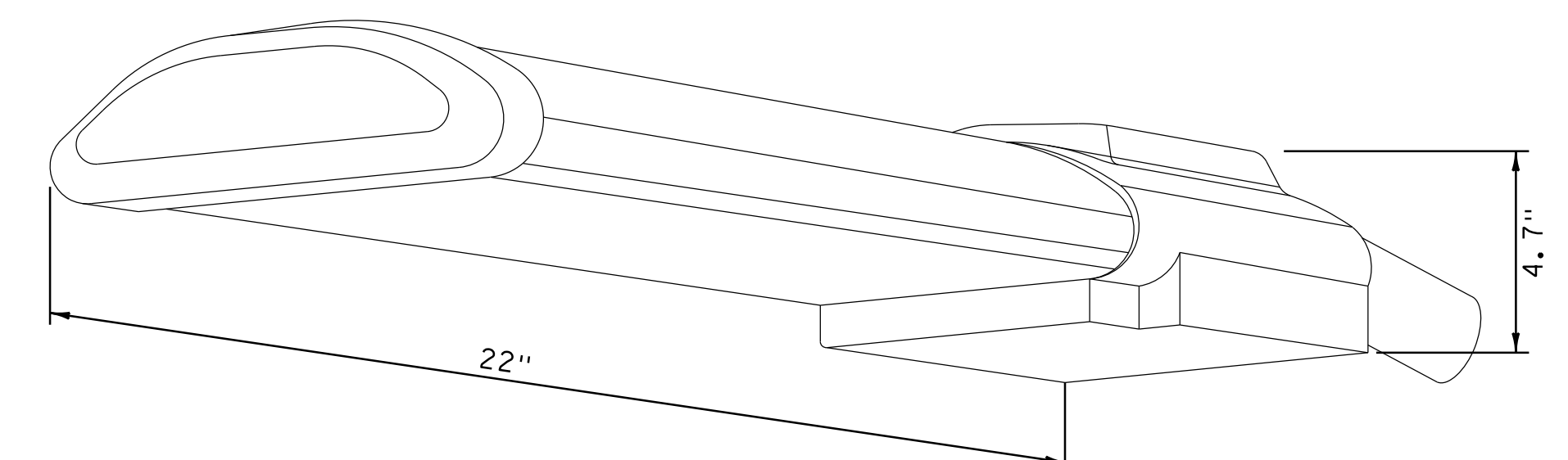
CREE: STR-LWY-3MB-HT-04-E-UL-BZ-525-40K-SC- (PR)



#### FIXTURE TYPE 'B'

#### ISO-FOOTCANDLE DATA

NO SCALE



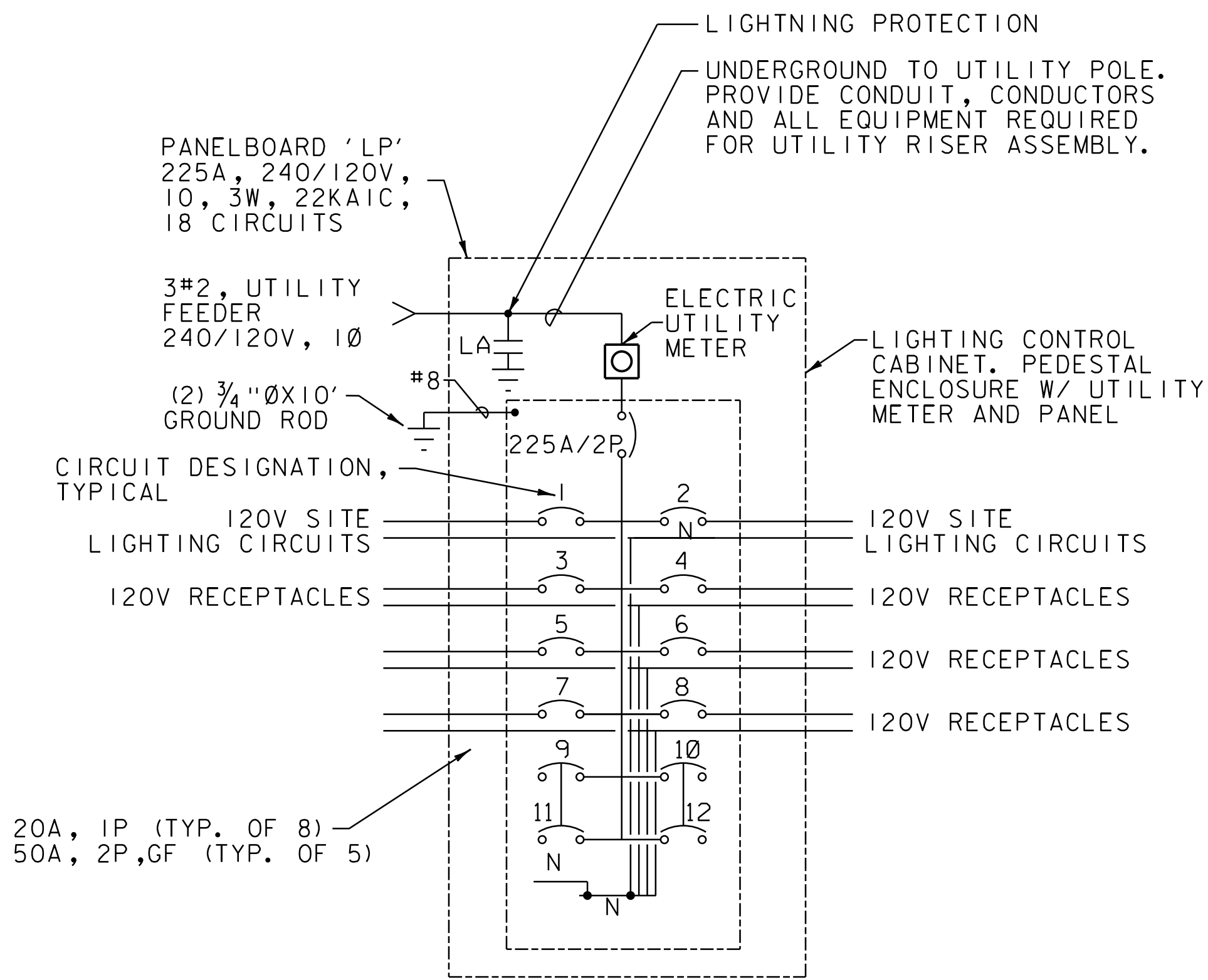
#### LUMINAIRE

STR-LWY-4MB-HT-04-E-UL-BZ-525-40K-SC- (PR)

NOT TO SCALE

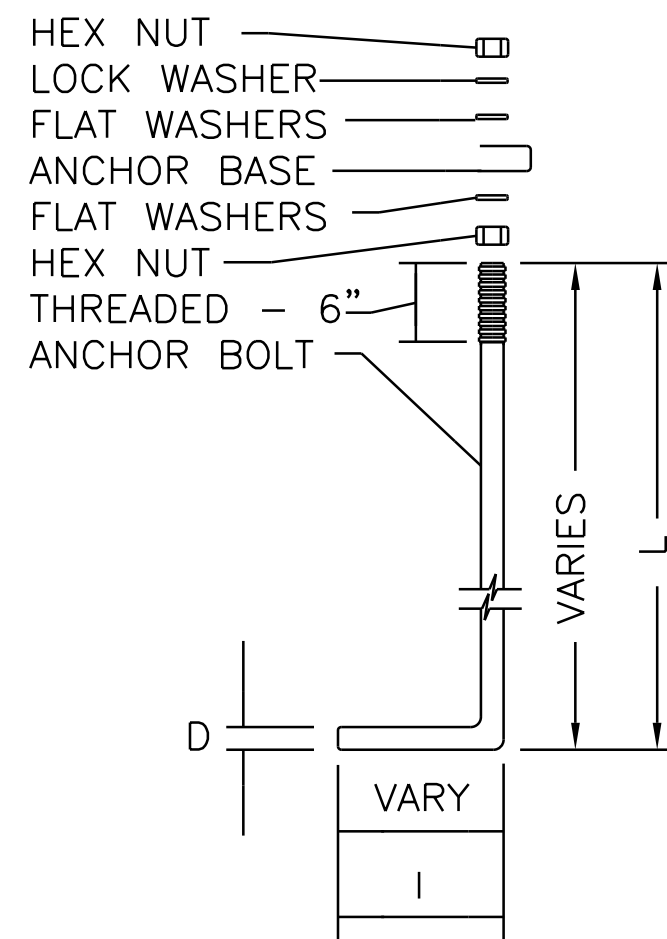
PROJECT NAME:	EAST MONTPELIER PARK-AND-RIDE
PROJECT NUMBER:	CMG PARK(37)
FILE NAME:	...drawing\zlk350+yp.dgn
PROJECT LEADER:	G. SANTY
DESIGNED BY:	M. CROWLEY
LIGHTING DETAIL SHEET 1	
PLOT DATE:	3/28/2016
DRAWN BY:	STANTEC
CHECKED BY:	G. SANTY
SHEET	22 OF 37





ONE-LINE DIAGRAM ROADWAY  
LIGHTING SERVICE PEDESTAL

NOT TO SCALE  
NOTE: NO RELAYS REQUIRED



DIMENSION TABLE									
MOUNTING HEIGHT	NO. OF ARMS	ANCHOR BASE				SLIP BASE			
		D	L	I	UNC	D	L	I	UNC
22'(MAX.)	1 2	1	36	4	8	1-1/4"	42	6	7

NOTES:

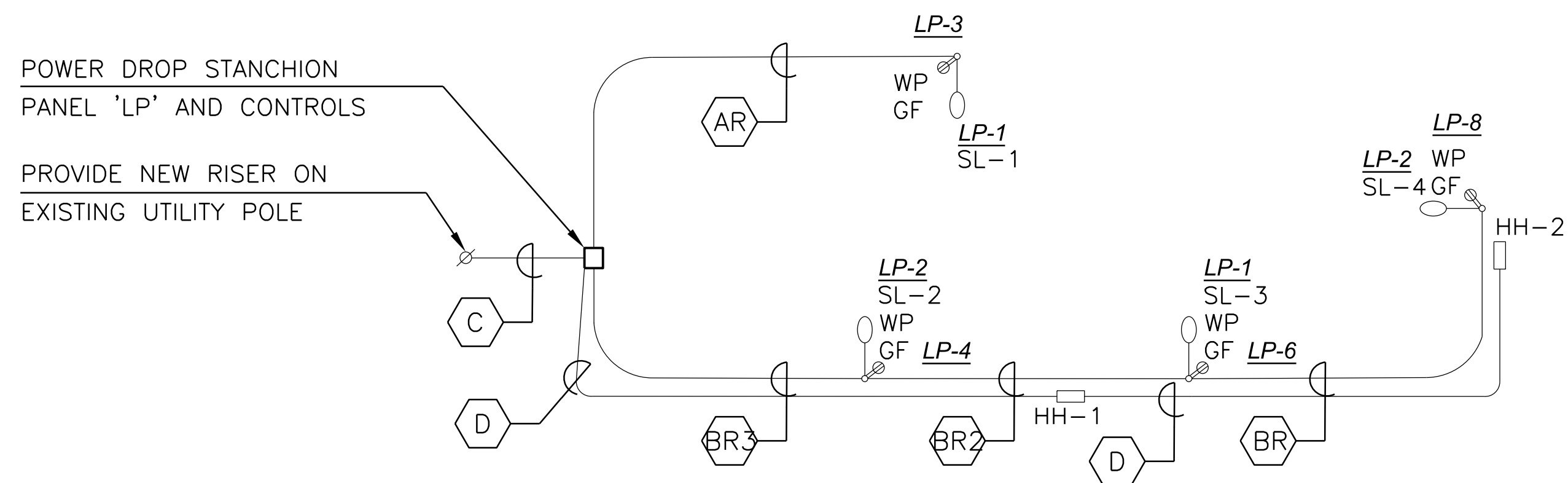
- ALL ANCHOR BOLTS, WASHERS AND NUTS TO BE STAINLESS STEEL.
- FOR MOUNTING HEIGHTS LESS THAN 30 FEET USE THE ANCHOR BOLT DIMENSIONS AS RECOMMENDED BY THE POLE MANUFACTURER, LENGTH, HOOK, DIAMETER AND BOLT PROJECTION.

ANCHOR BOLT ASSEMBLY DETAIL  
NOT TO SCALE

CONDUIT & CONDUCTOR SCHEDULE					
KEY	CONDUIT SIZE	CONDUCTORS			
		FOR FIXTURES	FOR RECEPTACLES	FOR SERVICE	FOR GROUND
AR	2"	2#10	2#8		1#8G
B	2"	2#10			1#8G
BR	2"	2#10	2#6		1#8G
BR2	2"	4#10	2#6, 2#8		1#8G
BR3	2"	4#10	2#6, 4#8		1#6G
C	2"			3#2	1#6G
D	3"	#500 PULLCORD			

GENERAL NOTES:

- MAXIMUM OF 270° IN TOTAL BENDS PERMITTED IN SINGLE RUN OF CONDUIT
- LIGHTS SHALL BE FUSED AT BASE WITH Y-TYPE FUSE KIT WITH WATERPROOF INSULATED SEAL "FLOOD SEAL". SIZE OF SHIELD SHALL MATCH WIRE AND HAVE A 10A FUSE.
- 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.
- UTILIZE APPROVED DUAL-RATED PARALLEL TAP CONNECTOR WITH INSULATED COVER FOR TAPS AT POLE BASE.
- UTILIZE APPROVED DUAL-RATED PARALLEL TAP CONNECTOR WITH WATERTIGHT CONNECTOR, SUITABLE FOR DIRECT BURIAL IN JUNCTION BOXES, HANDHOLES.



SITE LIGHTING ONE-LINE DIAGRAM



PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE	
PROJECT NUMBER: CMG PARK(37)	
FILE NAME: ...drawing\zllk350+yp.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: STANTEC
DESIGNED BY: M. CROWLEY	CHECKED BY: G. SANTY
LIGHTING DETAIL SHEET 2	SHEET 23 OF 37



GENERAL SITE LIGHT NOTES

CONCRETE BASES

WHEN CONCRETE BASES ARE INSTALLED IN SLOPING GROUND, THERE MUST BE A MINIMUM OF 5'-0" OF THE BASE IN THE GROUND.

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

TYPE A: ALUMINUM, DARK BRONZE, 'COBRA HEAD' TYPE LED, TYPE IV, DISTRIBUTION, WITH BACK LIGHT CONTROL EQUIVALENT TO : CREE LIGHTING CATALOG NO. STR-LWY-4MB-HT-04-E-UL-525-4K-SC-PR WITH PHOTOCELL.

TYPE B: ALUMINUM, DARK BRONZE, 'COBRA HEAD' TYPE LED, TYPE III, DISTRIBUTION EQUIVALENT TO: CREE LIGHTING CATALOG NO. STR-LWY-3MB-HT-04-E-UL-525-4K-SC-PR WITH PHOTO CELL.

POLES: TAPERED ALUMINUM, 16 FT. DARK BRONZE, WITH BASE COVER EQUIVALENT TO: COOPER LIGHTING CATALOG NO. RTA-5-125-16'-A-F (BRONZE) - 1@90-6'-B-G

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

ILLUMINATION LEVELS

PARK AND RIDE SHALL HAVE AN AVERAGE OF 1.0 FC, MINIMUM OF 0.2 FC, AND UNIFORMITY OF 4:1.

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.

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.

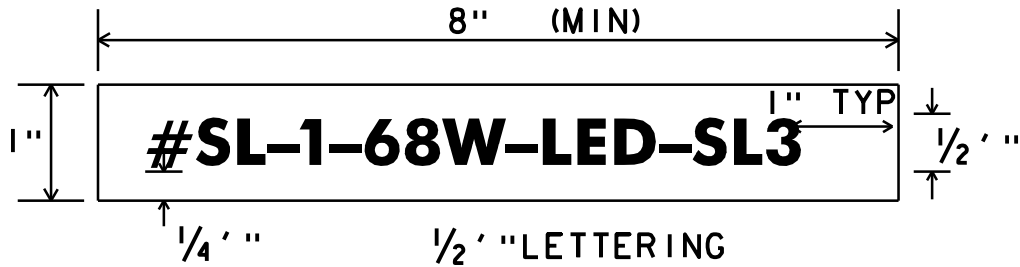
ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.

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 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.

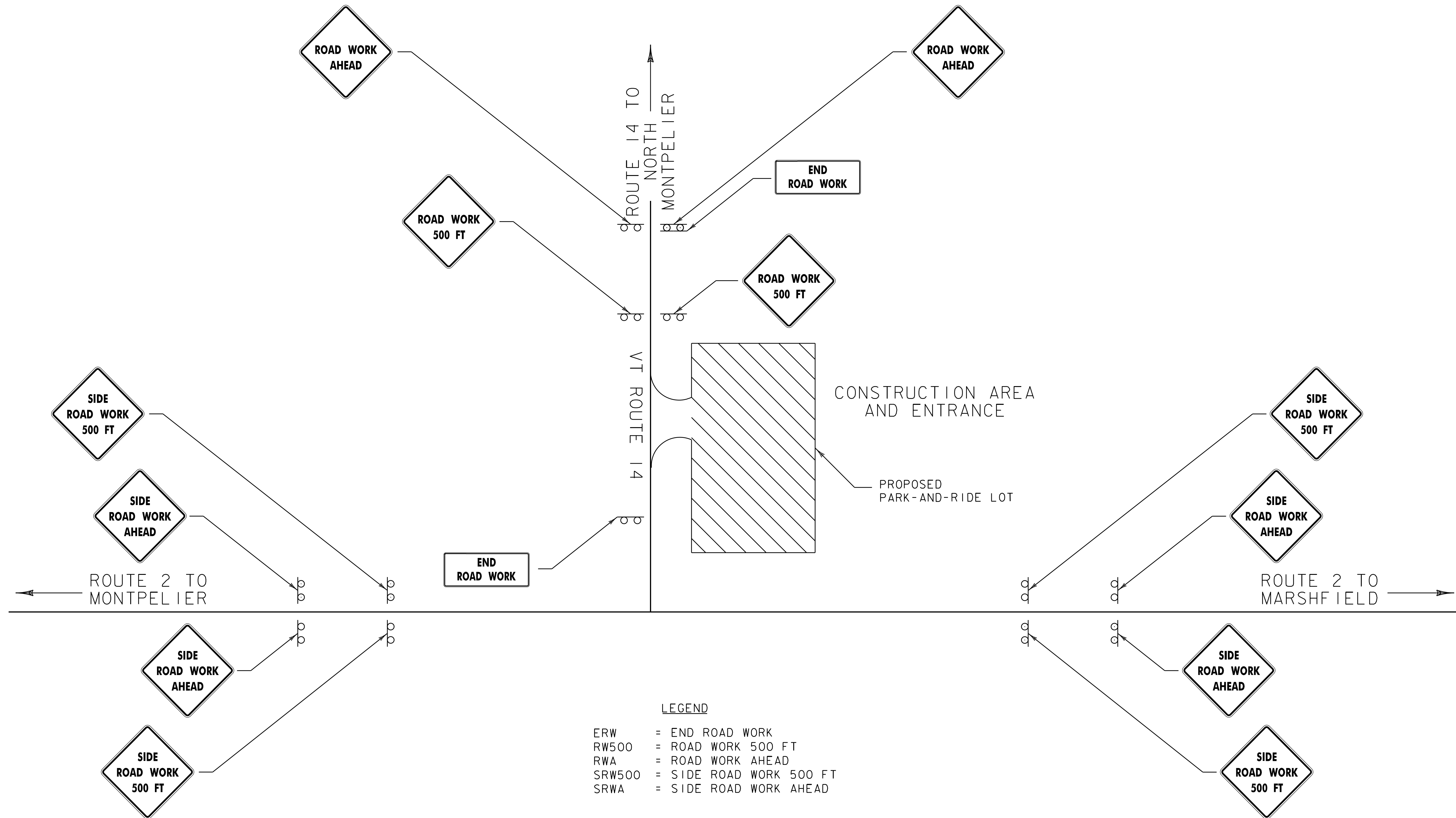
DETAILS FOR TAGS ATTACHED TO SITE LIGHT POLES

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, RIVET-ED, 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 INCHES.
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-#-51W-LED-SL4  
TYPE 'B' FIXTURE TAG SHALL READ: SL-#-51W-LED-SL3



PROJECT NAME: EAST MONTPELIER PARK-AND-RIDE	
PROJECT NUMBER: CMG PARK(37)	
FILE NAME: ...\\drawing\\zllk350+yp.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: STANTEC
DESIGNED BY: M. CROWLEY	CHECKED BY: G. SANTY
LIGHTING DETAIL SHEET 3	SHEET 24 OF 37



#### 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

LOCATION	ERW	RW500	RWA	SRW500	SRWA
ROUTE 2 NB				2	2
ROUTE 2 SB				2	2
ROUTE 14	2	2	2		
TOTALS	2	2	2	4	4

#### CONSTRUCTION APPROACH SIGNING

NOT TO SCALE  
 SEE VTrans STANDARD T-10 FOR SIGN PLACEMENT.  
 ALL TEMPORARY CONSTRUCTION SIGNING WILL BE INCLUDED  
 IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10.



PROJECT NAME:	EAST MONTPELIER PARK-AND-RIDE
PROJECT NUMBER:	CMG PARK(37)
FILE NAME:	...drawing\zllk350+yp.dgn
PROJECT LEADER:	G. SANTY
DESIGNED BY:	G. BURGMEIER
CONSTRUCTION APPROACH SIGNING	
PLOT DATE:	3/28/2016
DRAWN BY:	STANTEC
CHECKED BY:	G. SANTY
SHEET	25 OF 37



EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT IS LOCATED ON VT ROUTE 14 IN THE TOWN OF EAST MONTPELIER, AT THE INTERSECTION OF ROUTE 14 NORTH AND U.S. ROUTE 2. WORK TO BE PERFORMED ON THIS PROJECT INCLUDES THE CONSTRUCTION OF A NEW 27 SPACE PARK-AND-RIDE LOT, 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 0.76 ACRES.

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

1.2 SITE INVENTORY

1.2.1 OFF SITE DRAINAGE CHARACTERISTICS (UP AND DOWN-GRADIENT)

THE SITE SLOPES AWAY FROM VT ROUTE 14 AT GRADES RANGING FROM 2-15%. 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 SWALES AND ACROSS A NATURALLY VEGETATED AREA BEFORE CROSSING THROUGH AN EXISTING CULVERT UNDER ROUTE 2 AND INTO THE WINOOSKI RIVER. ONE EXISTING CATCH BASIN AT THE NORTH END OF THE SITE DRAIN UNDER ROUTE 14 AND DISCHARGE TO THE WINOOSKI RIVER. THIS CATCH BASIN DRAINS MOSTLY OFF-SITE FLOW, BUT MAY RECEIVE RUNOFF FROM THE WORKZONE.

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

WINOOSKI RIVER IS LOCATED APPROXIMATELY 700’ SOUTH EAST OF THE SITE, AND FLOWS NORTH TO THE SOUTH.

1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

VT ROUTE 14 BORDERS THE PROJECT TO THE WEST AND RANGES IN GRADE FROM 0.5% TO 2.0%. . THERE IS EXISTING UTILITY POLE ON THE SOUTH END OF THE SITE WHICH WILL BE THE POWER SOURCE FOR THE PROJECT LIGHTING.

1.2.4 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS MAINLY OF BRUSH AND GRASS, WITH SOME AREAS OF LAWN BORDERING ROUTE 14.

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

1.2.5 SOILS

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

CABOT SILT LOAM, 0% TO 3% SLOPES, “K FACTOR” = 0.32 (54.7%) AND SALMON VERY FINE SANDY LOAM 8-15% SLOPES, ‘K FACTOR” = 0.49. THE SOILS ARE CONSIDERED MODERATELY ERODIBLE, AND HIGHLY ERODABLE RESPECTIVELY.

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.

1.2.6 SENSITIVE RESOURCE AREAS

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

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, 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 NOT ANTICIPATED TO BE NEEDED AS THERE ARE NO WATER RESOURCES OR WETLANDS WITHIN 100’ OF PROJECT DISTURBANCE.

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. PDF SHALL BE INSTALLED TIGHT TO THE CONSTRUCTION LIMITS NEAR THE EXISTING DRAINAGE DITCH IN THE SOUTHEAST CORNER OF THE SITE.

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 CONTRACTORS 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.

PDF FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN. STONE AND BLOCK INLET PROTECTION WILL BE INSTALLED ON EXISTING DROP INLET OFF ROUTE 14.

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 14, 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 EROSION 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. THE PROJECT DOESN’T CURRENTLY REQUIRE AN OPERATIONAL STORMWATER PERMIT.

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.

1.5.1 CONSTRUCTION SEQUENCE BY CONTRACTOR

1.5.2 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.



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PROJECT NUMBER: CMG PARK(37)	
FILE NAME: ...\\drawing\\zllk350+yp.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: STANTEC
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
EPSC NARRATIVE	SHEET 26 OF 37





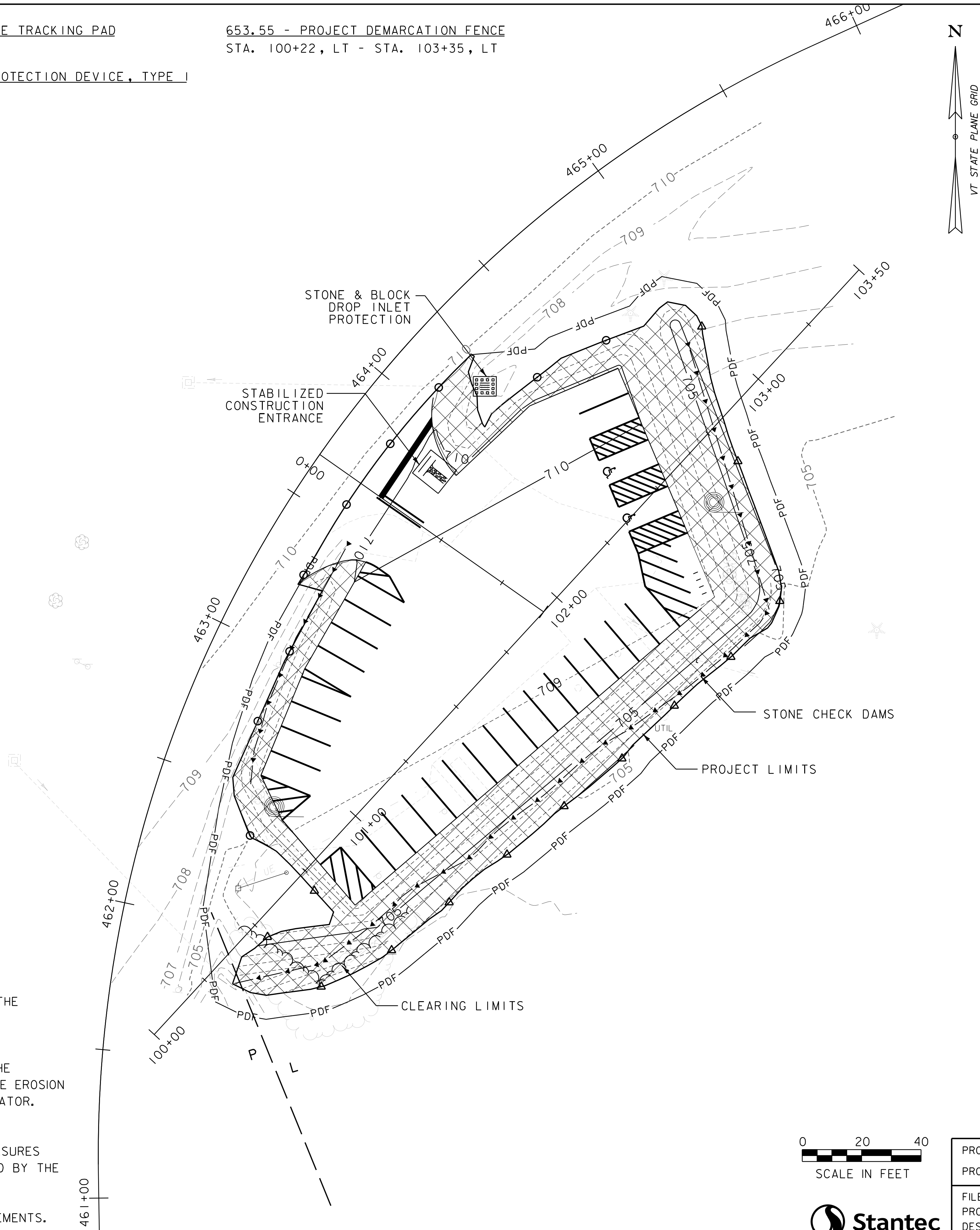
653.20 - TEMPORARY EROSION MATTING  
STA. 100+30 LT & RT - STA. 103+14, LT & RT

653.25 - TEMPORARY STONE CHECK DAM, TYPE I  
STA. 100+29, LT - STA. 101+65, LT  
STA. 100+56, RT - STA. 103+00, LT

653.35 - VEHICLE TRACKING PAD  
STA. 102+03, LT

653.40 INLET PROTECTION DEVICE, TYPE I  
STA. 102+36, LT

653.55 - PROJECT DEMARCATION FENCE  
STA. 100+22, LT - STA. 103+35, LT

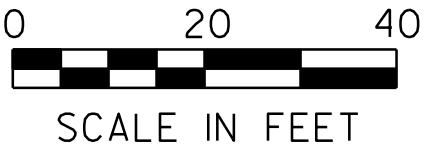


GENERAL CONSTRUCTION SEQUENCE

1. DEMARCATe 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 E.P.S.C. 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 (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 1) FOR CONSTRUCTION NOTES AND DETAILS).
  - D. EROSION MATTING (SEE EPSC DETAILS 2) FOR CONSTRUCTION NOTES AND DETAILS).
4. DISPOSE OF STUMPS, EXCESS SOILS AND OTHER WASTE MATERIAL IN ACCORDANCE WITH SPECIFICATION 105.25 CONTROL OF WASTE, BORROW AND STAGING.
5. COMPLETE CONSTRUCTION OF NEW PARK-AND-RIDE LOT.
  - A. INSPECT AND MAINTAIN EROSION PREVENTION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE SPECIFICATIONS AND SPECIAL PROVISIONS.
  - 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 INCLUDING CHANNEL LININGS, SEEDING AND MULCHING (PERMANENT TURF ESTABLISHMENT).

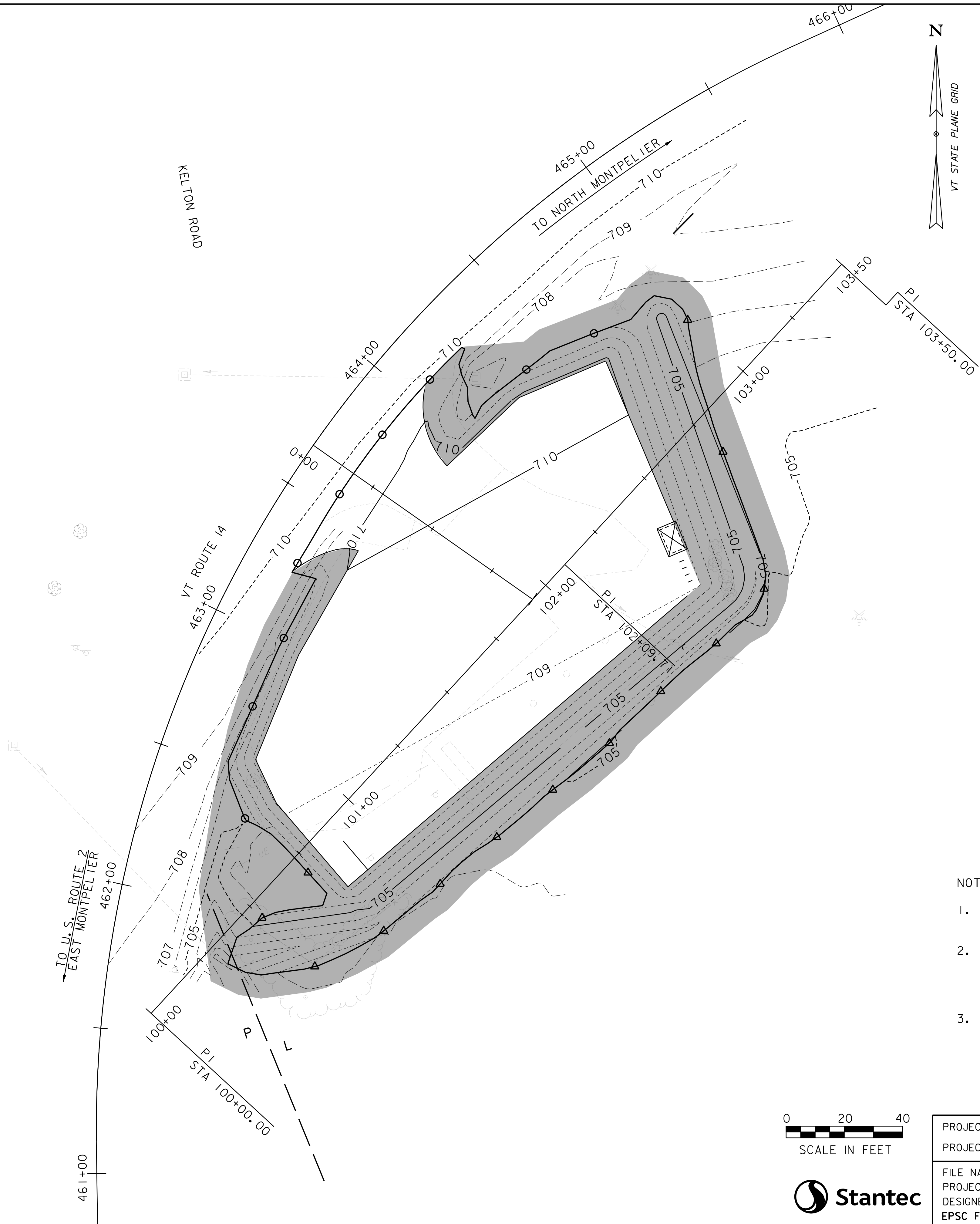
EPSC GENERAL NOTES:

1. THESE PLANS SHOW A PROPOSED TEMPORARY 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 OR ADD 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.



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PROJECT LEADER: G. SANTY	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
EPSC CONSTRUCTION SITE PLAN	SHEET 28 OF 37



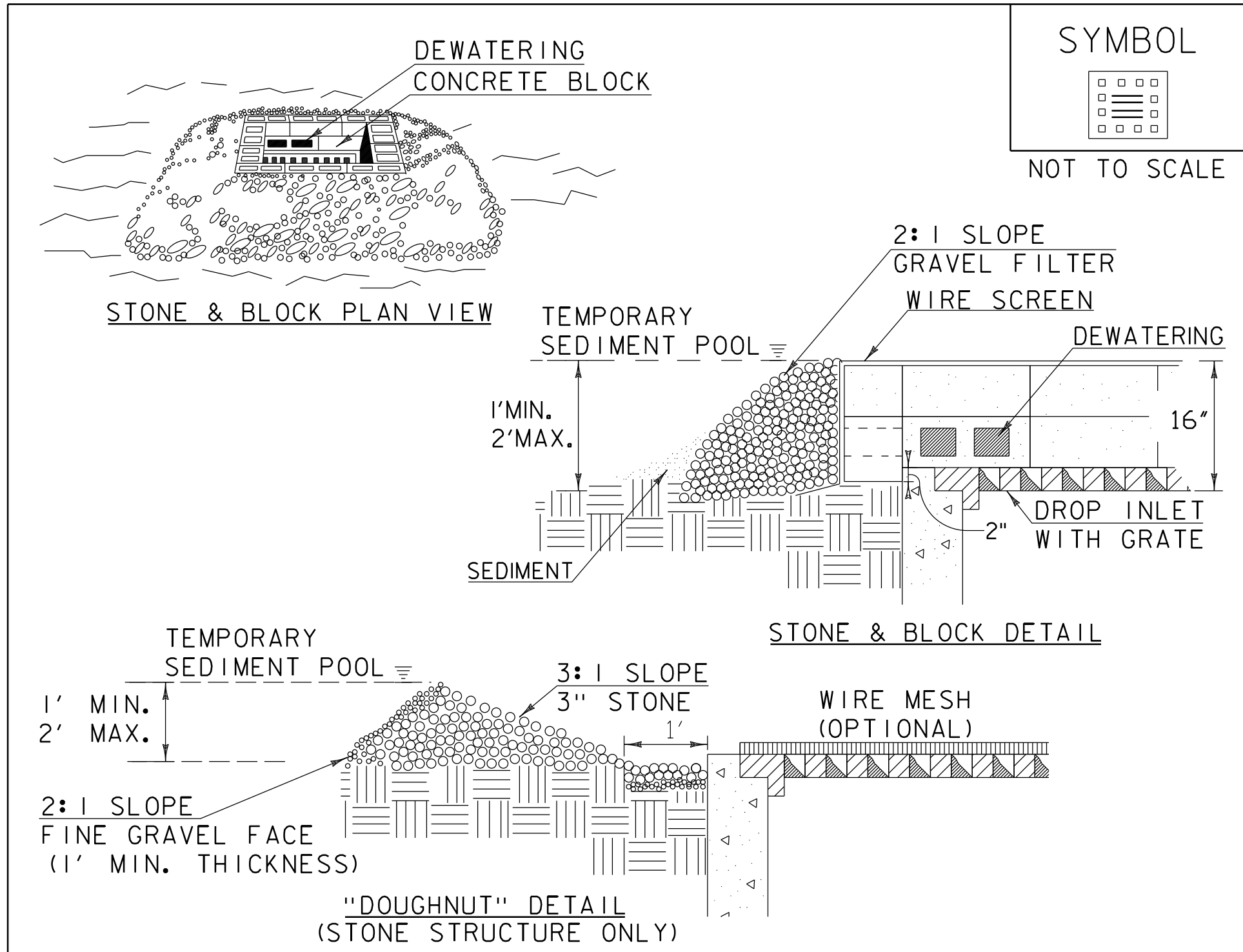


- NOTES:
1. SEE EPSC CONSTRUCTION SITE PLAN AND CROSS SECTIONS FOR PROPOSED TOPOGRAPHY.
  2. THE TEMPORARY CONSTRUCTION LIMIT IS THE AREA WITHIN THE PROJECT DEMARCATION FENCE AS SHOWN ON THE EPSC CONSTRUCTION SITE PLAN.
  3. DISTURBED AREAS SHALL BE RE-VEGETATED WITH 4" TOPSOIL, SEED, AND MULCH. FERTILIZER, LIMESTONE, SEED AND MULCHING SHALL BE APPLIED PER THE SEEDING FORMULA ON DETAILS SHEET

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EPSC FINAL CONDITIONS SITE PLAN	SHEET 29 OF 37







- CONSTRUCTION SPECIFICATIONS
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2" MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
  2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
  3. USE CLEAN STONE OR GRAVEL 1/2" - 3/4" IN DIAMETER PLACED 2" BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
  4. FOR STONE STRUCTURES ONLY, A 1' THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3" STONE AS SHOWN ON THE DRAWINGS.
  5. MAXIMUM DRAINAGE AREA 1 ACRE

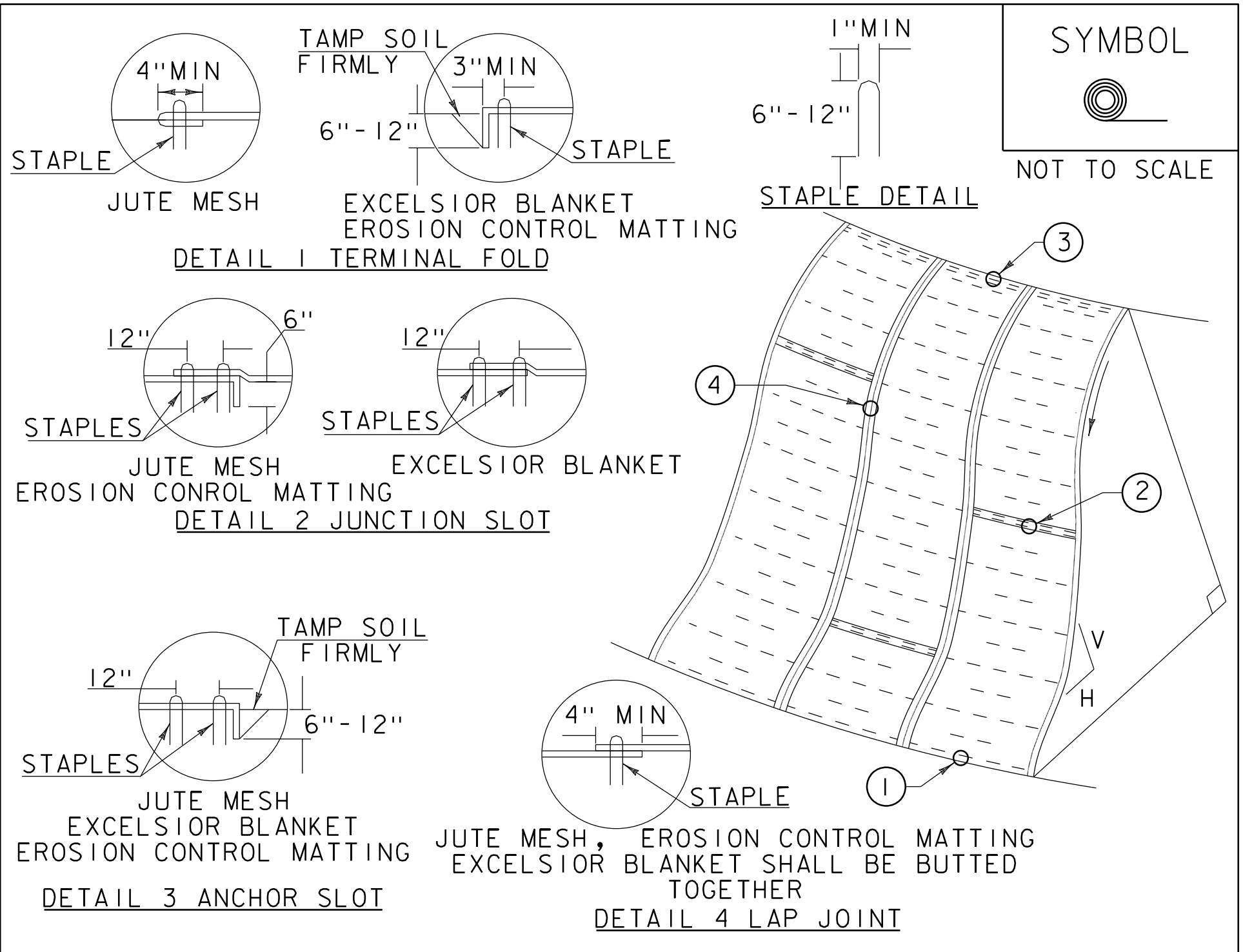
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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	



- CONSTRUCTION SPECIFICATIONS
1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
  2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
  3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
  4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
  5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

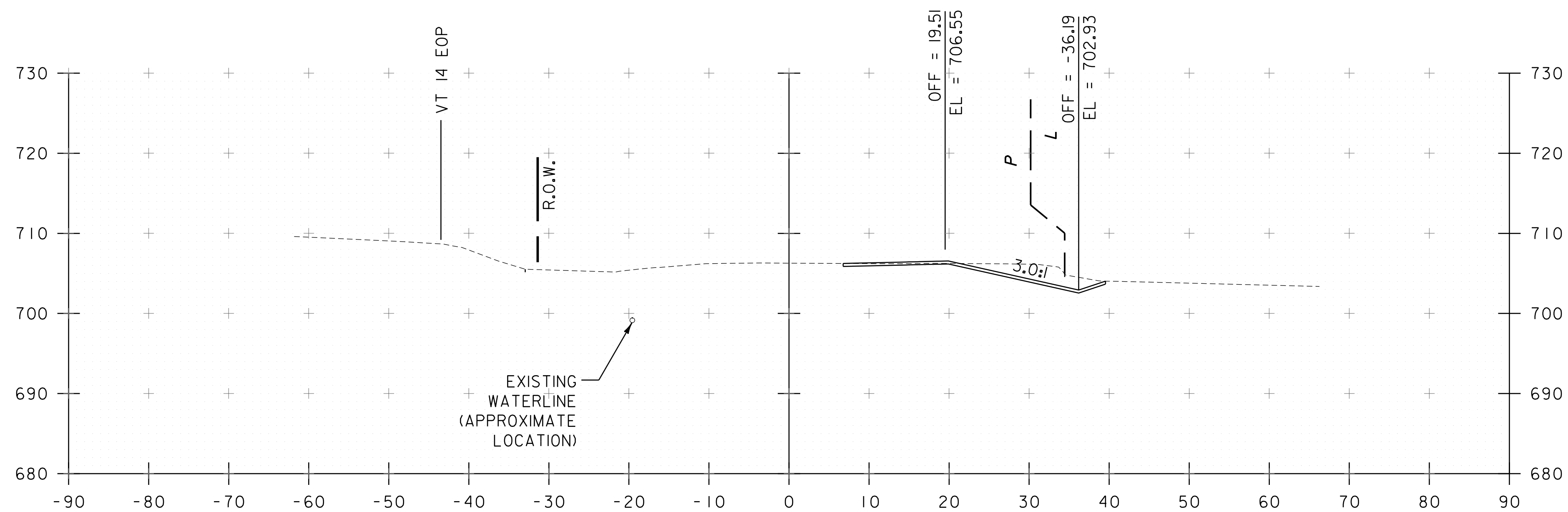
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION  
CONTROL PRODUCT  
(RECP) SIDE SLOPE

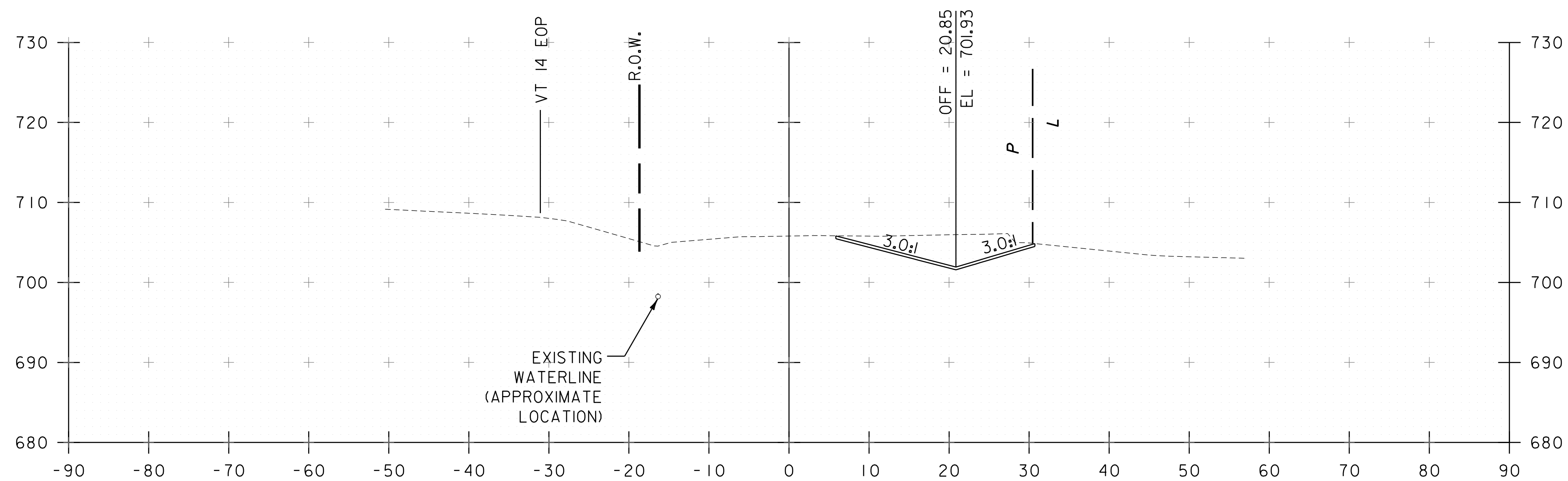
NOTES:  
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR  
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM  
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL  
GUIDANCE.

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

REVISIONS		
APRIL 16, 2007	JMF	
JANUARY 13, 2009	WHF	



100+75

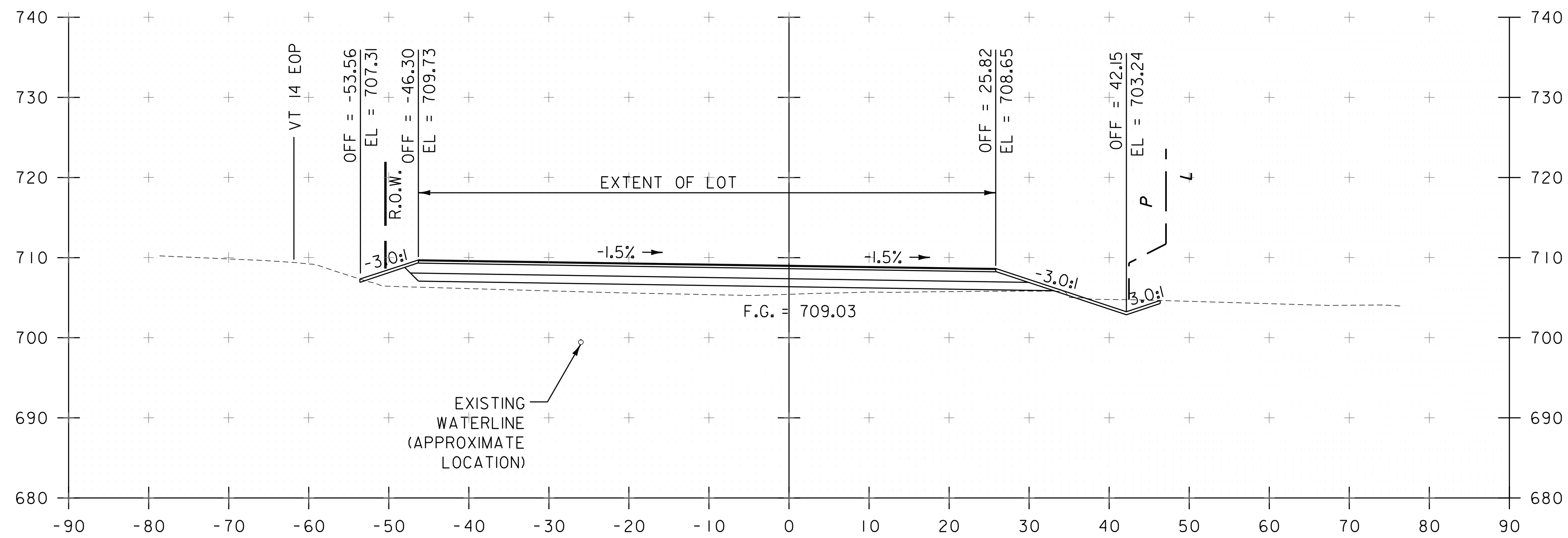


100+50

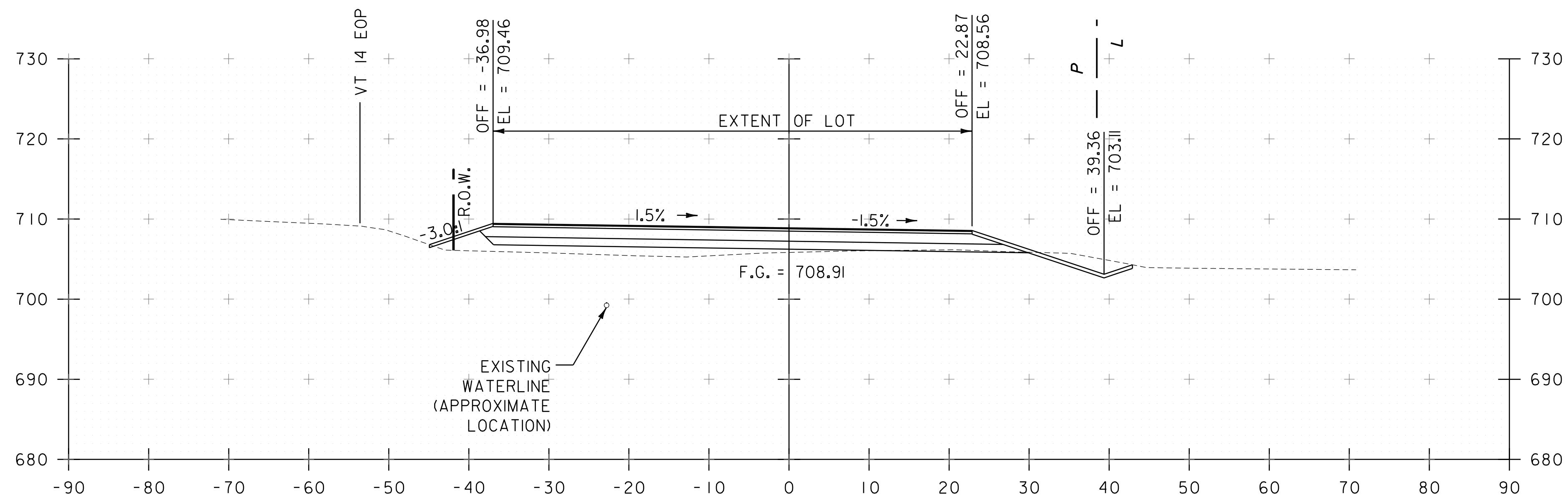
STA. 100+50 TO STA. 100+75



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FILE NAME: zlik350xs.dgn	PLOT DATE: 3/28/2016
PROJECT LEADER: G. SANTY	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: G. SANTY
CROSS SECTIONS SHEET 1	SHEET 32 OF 37



101+25



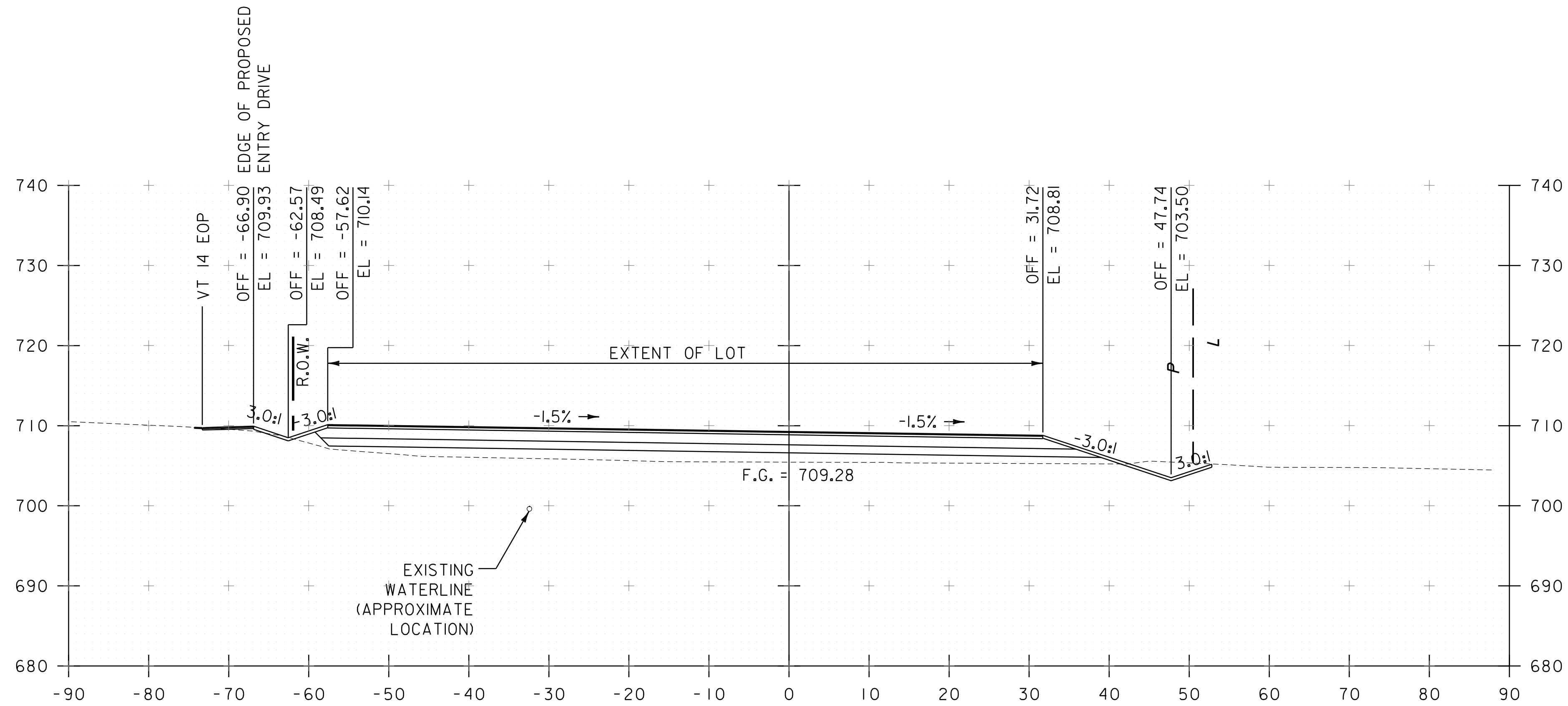
101+00

STA. 101+00 TO STA. 101+25

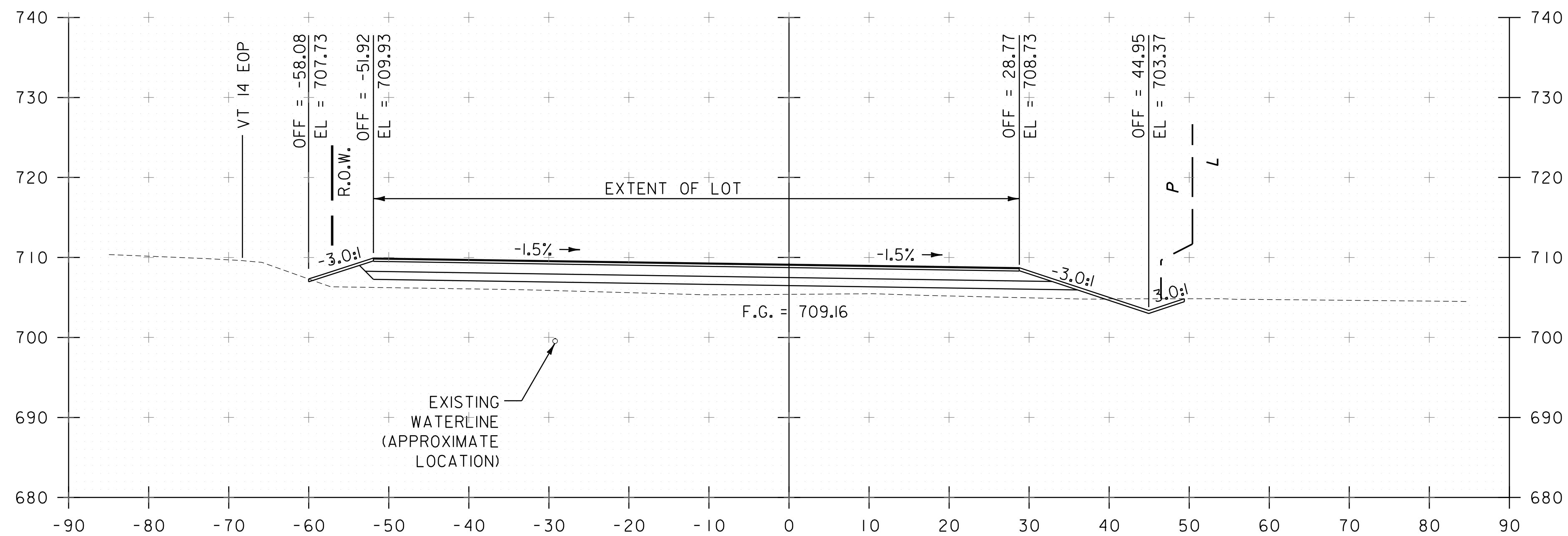


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CROSS SECTIONS SHEET 2	SHEET 33 OF 37





101+75

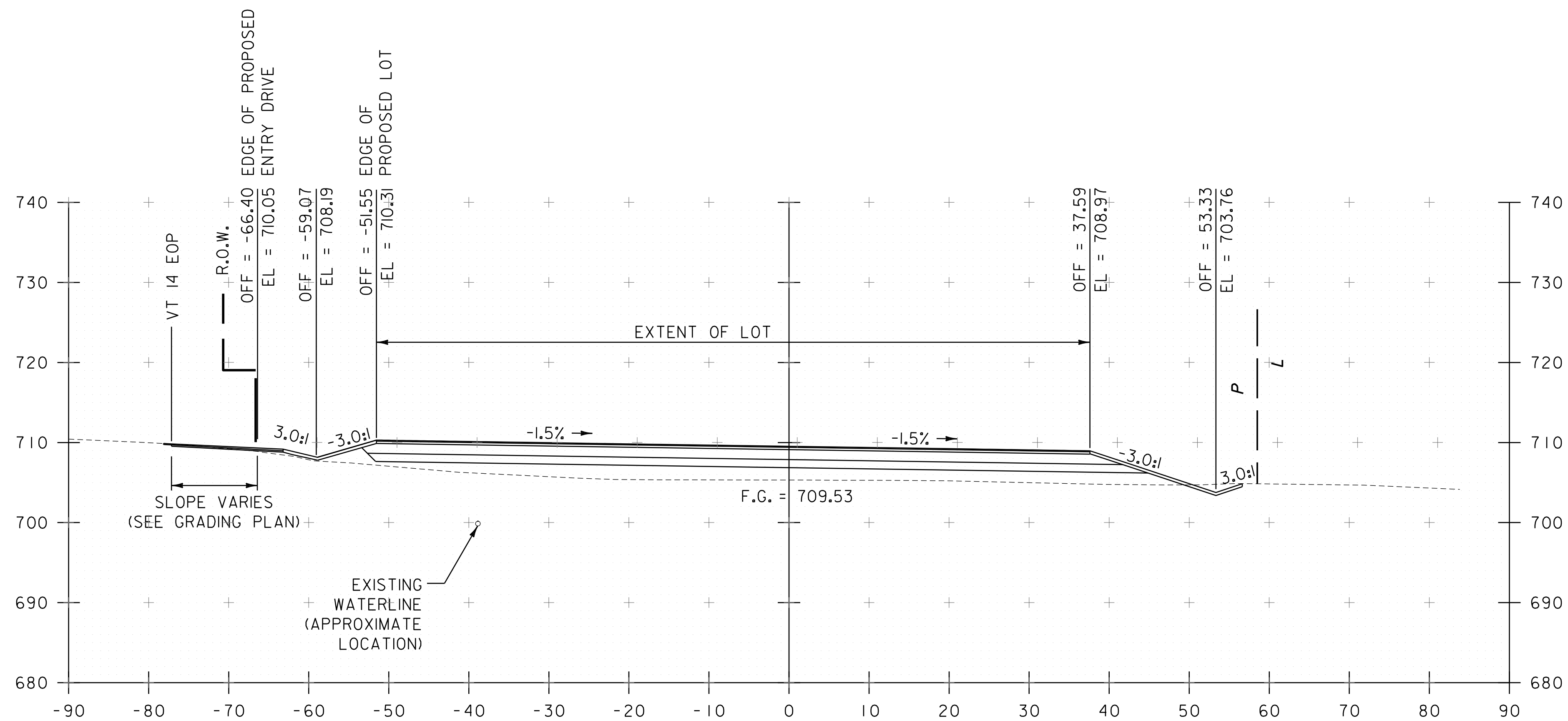


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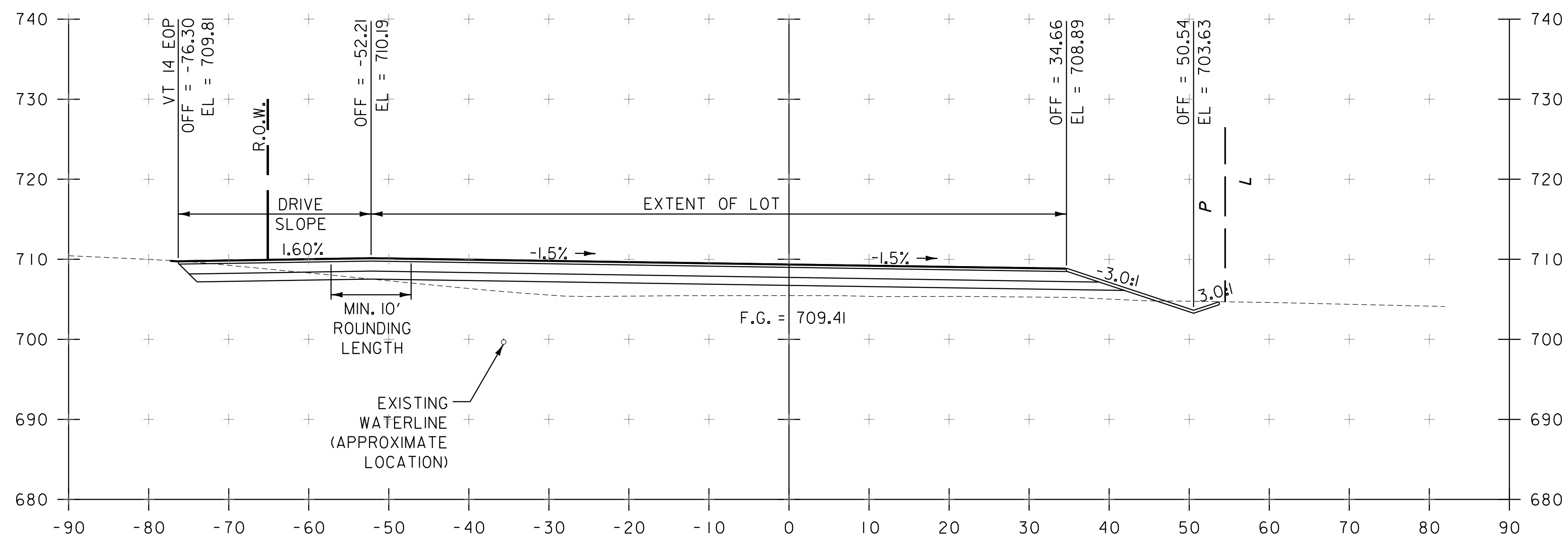
STA. 101+50 TO STA. 101+75



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CROSS SECTIONS SHEET 3	SHEET 34 OF 37



102+25

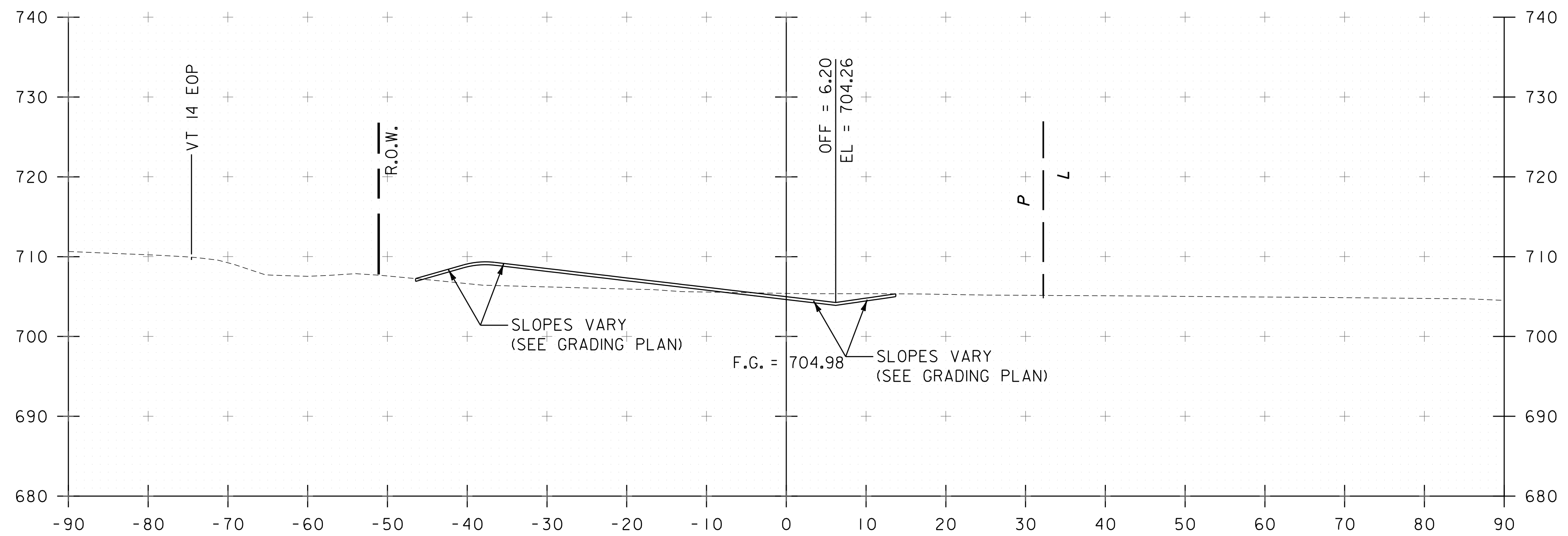


102+00

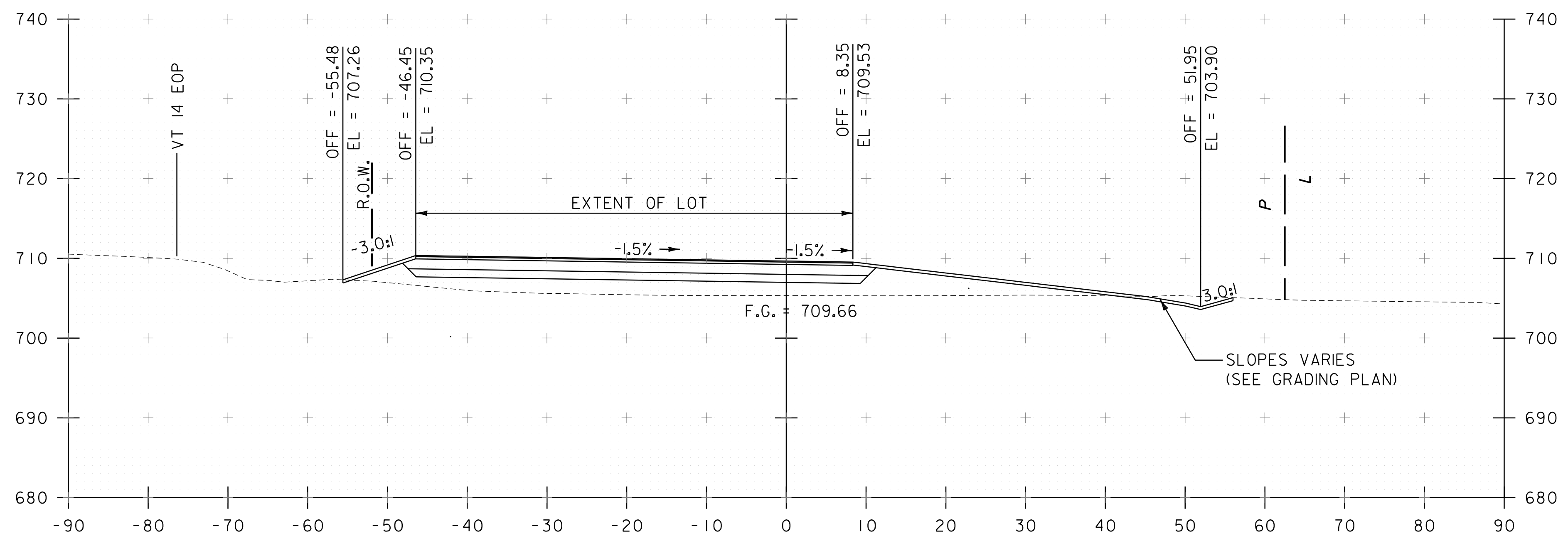
STA. 102+00 TO STA. 102+25



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CROSS SECTIONS SHEET 4	SHEET 35 OF 37



102+75

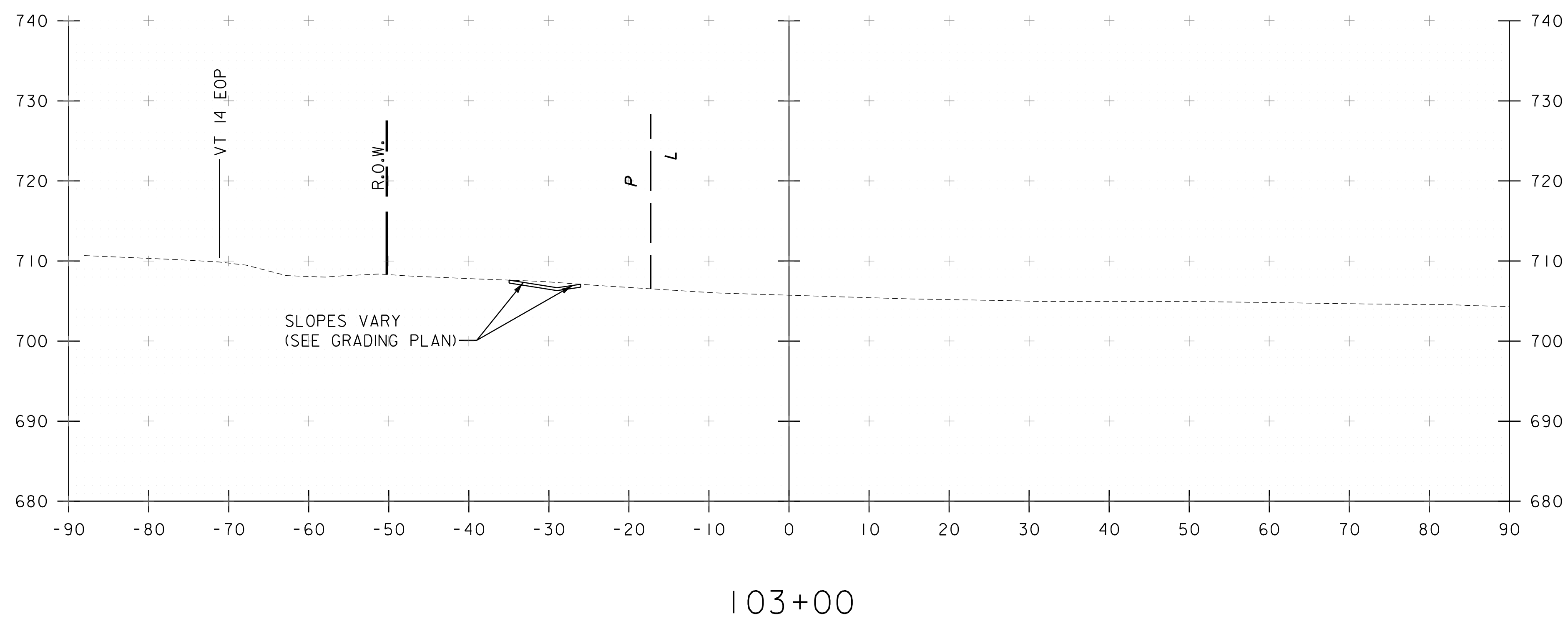


102+50

STA. 102+50 TO STA. 102+75



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STA. 103+00



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CROSS SECTIONS SHEET 6	SHEET 37 OF 37