

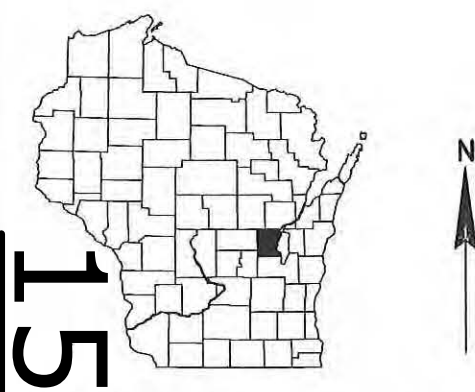
GRE APR 13
PROJECT ID: 1120-11-88
WITH: N/A

COUNTY: WINNEBAGO

ORDER OF SHEETS

- Section No. 1 Title
- Section No. 2 Typical Sections and Details (w/ Erosion Control)
- Section No. 3 Estimate of Quantities
- Section No. 3 Miscellaneous Quantities
- Section No. 4 Right of Way Plat
- Section No. 5 Plan and Profile
- Section No. 6 Standard Detail Drawings
- Section No. 7 Sign Plates
- Section No. 8 Structure Plans
- Section No. 9 Computer Earthwork Data
- Section No. 9 Cross Sections

TOTAL SHEETS = 64



DESIGN DESIGNATION

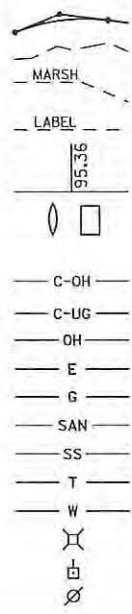
A.D.T.	2007	68,400
A.D.T.	2035	111,800
D.H.V.	2035	9,780
D.D.		50-50
T.		14.0%
DESIGN SPEED		70 MPH
ESALS		22,549,700

CONVENTIONAL SYMBOLS

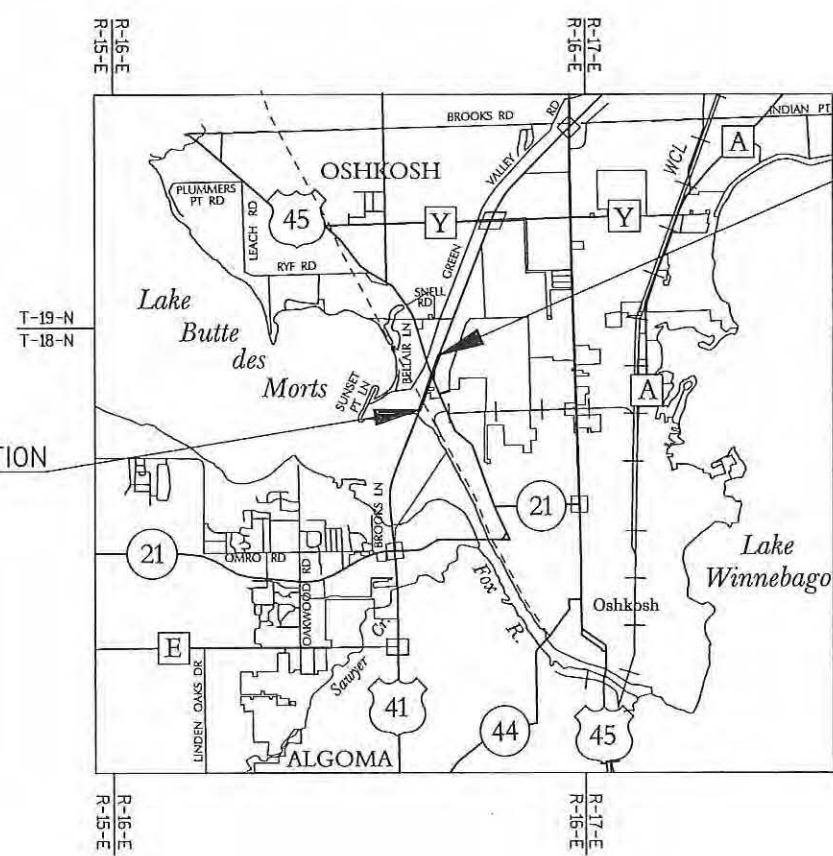
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- TEMPORARY LIMITED EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS
- RETAINING WALL
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

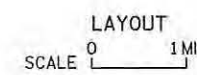
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such)
- SPECIAL DITCH
- GRADE ELEVATION
- CULVERT (Profile View)
- UTILITIES
 - OVERHEAD COMMUNICATIONS
 - UNDERGROUND COMMUNICATIONS
 - OVERHEAD ELECTRIC
 - UNDERGROUND ELECTRIC
 - GAS
 - SANITARY SEWER
 - STORM SEWER
 - TELEPHONE
 - WATER
 - UTILITY PEDESTAL
 - POWER POLE
 - TELEPHONE POLE



BEGIN CONSTRUCTION
I.D. 1120-11-88
STA 645+00
Y = 487445.00
X = 783109.11



END CONSTRUCTION
I.D. 1120-11-88
STA 685+00
Y = 491042.97
X = 784663.49



TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WINNEBAGO COUNTY HORIZONTAL DATUM NAD 83 (9D). ALL DISTANCES ARE GROUND. ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO VERTICAL DATUM NATIONAL GEODETIC VERTICAL DATUM 1929 ADJUSTMENT (NGVD 29).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
STH 26 - BREEZEWOOD LANE
STH 21 - USH 45
USH 41
WINNEBAGO COUNTY

STATE PROJECT NUMBER
1120-11-88

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1120-11-88	WISC 2013216	1

USH 45 INTERCHANGE
LANDSCAPING

ORIGINAL PLANS PREPARED BY
CH2MHILL
MILWAUKEE, WISCONSIN

WISCONSIN
JEFFREY A. BAUER
E-30709
GRAFTON, WI
PROFESSIONAL ENGINEER

10/17/12 (Date) *Jeffrey A. Bauer* (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT NORTHEAST REGION
Designer	CH2M HILL/KEN SAKI DESIGN
Project Manager	TOM BUCHHOLZ
Regional Examiner	BRIAN HAEN
Regional Supervisor	MIKE KING
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 10/22/2012 *Tom Buchholz* (Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS.

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EXISTING DRIVEWAYS AND FIELD ENTRANCES SHALL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD AND AT THE LOCATION DETERMINED BY THE ENGINEER.

EXISTING SIDE SLOPES AND DITCH GRADES SHALL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD.

EXISTING ELEVATIONS SHALL BE VERIFIED IN THE FIELD.

DO NOT REMOVE ANY EXISTING SIGNS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THESE SIGNS.

REFERENCE LINE ALIGNMENTS SHOWN THROUGHOUT THE PLAN DO NOT CORRELATE WITH THE ALIGNMENT SHOWN ON THE RIGHT-OF-WAY PLAN.

REFERENCE LINE CALL OUTS

'ALA'	USH 41 SOUTHBOUND ENTRANCE RAMP (RAMP '45'-A)
'ALB'	USH 41 SOUTHBOUND EXIT RAMP (RAMP '45'-B)
'ALC'	USH 41 NORTHBOUND ENTRANCE RAMP (RAMP '45'-C)
'ALD'	USH 41 NORTHBOUND EXIT RAMP (RAMP '45'-D)
'ALE'	USH 45 SOUTHBOUND TO USH 41 SOUTHBOUND RAMP (RAMP '45'-E)
'ALF'	USH 41 NORTHBOUND TO USH 45 NORTHBOUND RAMP (RAMP '45'-F)
'ALG'	USH 45 SOUTHBOUND TO USH 41 SOUTHBOUND (RAMP '45'-G)
'ALN'	USH 45 NORTHBOUND
'ALS'	USH 45 SOUTHBOUND
'BUT'	LAKE BUTTE DES MORTS DR
'NOA'	USH 41 NORTHBOUND
'SOA'	USH 41 SOUTHBOUND

DESIGNER NOTES

DESIGN, PLANS, SPECIFICATIONS, AND ESTIMATE FOR PLANTING PROVIDED BY KEN SAIKI DESIGN.

UTILITY COORDINATION AND UTILITY SPECIFICATIONS BY BECHER HOPPE ASSOCIATES.

DESIGN, PLANS, SPECIFICATIONS, AND ESTIMATE FOR ALL REMAINING ITEMS PROVIDED BY CH2M HILL, INC.

STANDARD ABBREVIATIONS

AEW	APRON END WALL	O/S	OFF SET
AGG	AGGREGATE	PAVT	PAVEMENT
AH	AHEAD	PC	POINT OF CURVE
ASP	ASPHALTIC	PCC	POINT OF COMPOUND CURVE
BK	BACK	PE	PRIVATE ENTRANCE
BAD	BASE AGGREGATE DENSE	PGL	PROFILE GRADE LINE
BM	BENCH MARK	PI	POINT OF INTERSECTION
BT	BEGIN TRANSITION	PLE	PERMANENT LIMITED EASMENT
CC	CENTER OF CURVATURE	POB	POINT OF BEGINNING
CE	COMMERCIAL ENTRANCE	PT	POINT OF TANGENT
C&G	CURB AND GUTTER	PUU	PIPE UNDERDRAIN UNPERFORATED
C/L OR ☐	C/L OR ☐ CENTER OR CONSTRUCTION LINE	PVC	POLYVINYL CHLORIDE
		R	RADIUS OF CURVE
CONC	CONCRETE	R/L	REFERENCE LINE
CP	CULVERT PIPE	R/W	RIGHT OF WAY
CPCM	CULVERT PIPE CORRUGATED METAL	RC	REVERSE CROWN
CPRC	CULVERT PIPE REINFORCED CONCRETE		APRON ENDWALL FOR CULVERT PIPE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	RCAEW	REINFORCED CONCRETE
			REQUIRED
CSD	CONCRETE SURFACE DRAIN	REQD	RIGHT HAND FORWARD
CY	CUBIC YARD	RHF	RUN OFF LENGTH
D	DEGREE OF CURVE	RO	RIGHT
Δ	DELTA	RT	
DISCH	DISCHARGE	SALV	SALVAGED
ET	END TRANSITION	SB	SOUTHBOUND
FE	FIELD ENTRANCE	SDD	STANDARD DETAIL DRAWING
FS	FULL SUPERELEVATION	SE	SUPER ELEVATION
HMA	HOT MIX ASPHALT	SF	SQUARE FOOT
HP	HIGH POINT	STA	STATION
HT	HEIGHT	SY	SQUARE YARD
INV	INVERT	SVD	SLOTTED VANE DRAIN
L	LENGTH OF CURVE	T	TANGENT LENGTH
LBDM	LAKE BUTTE DES MORTS	TLE	TEMPORARY LIMITED EASMENT
LHF	LEFT HAND FORWARD	TYP	TYPICAL
LP	LOW POINT	VCL	VERTICAL CURVE LENGTH
LT	LEFT	VPC	POINT OF VERTICAL CURVE
MAX	MAXIMUM	VPI	POINT OF VERTICAL INTERSECTION
MIN	MINIMUM	VPRC	POINT OF VERTICAL REVERSE CURVE
M/L	MATCHLINE	VPT	POINT OF VERTICAL TANGENT
NB	NORTHBOUND		
NC	NORMAL CROWN		
NORM	NORMAL		

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
WETLAND OVERVIEW
CONSTRUCTION DETAILS
EROSION CONTROL
PLANTING DETAIL
TRAFFIC CONTROL
ALIGNMENT

OTHER CONTACTS

DNR LIAISON
BOBBIE JO FISCHER
427 EAST TOWER DRIVE
SUITE 100
WAUTOMA, WI 54982
PHONE: (920) 787-4686 EXT 3007

TOWN OF OSHKOSH
TOWN HALL
230 EAST CTY RD Y
OSHKOSH, WI
PHONE: 920-231-5887
GERALD FREY, CHAIRPERSON
4804 ISLAND VIEW DRIVE
OSHKOSH, WI 54901
PHONE: (920) 233-2391

WINNEBAGO COUNTY HIGHWAY DEPARTMENT
JOHN HAESE
901 WEST COUNTY ROAD Y
OSHKOSH, WI 54901
PHONE: (920) 232-1700

WISCONSIN HIGHWAY BUSINESS SIGNS/ DIVISION OF DERSE, INC.
MARK ROGNSVOOG
3800 W. CANAL STREET
MILWAUKEE, WI 53208
PHONE: (414) 257-2000

WINNEBAGO COUNTY SURVEYOR
JERRY BOUGIE
WINNEBAGO COUNTY COURT HOUSE
448 ALGOMA BLVD
OSHKOSH, WI 54903-2808
PHONE: (920) 236-4839

WISCONSIN STATE PATROL
SGT. TIMOTHY McGRATH
NORTHEAST REGION - FOND DU LAC POST
P.O. BOX 984
FOND DU LAC, WI 54936-0894
OFFICE: (920) 929-3700 EXT 3004
CELL: (920) 960-5304

CITY OF OSHKOSH, DEPT. OF PUBLIC WORKS
(SANITARY SEWER & WATER)
PETE GULBRONSON
215 CHURCH AVENUE
P.O. BOX 1130
OSHKOSH, WI 54903
OFFICE: (920) 236-5065
CELL: (920) 376-0413
pgulbrnson@ci.oshkosh.wi.us

DAVID PATEK
215 CHURCH AVENUE
P.O. BOX 1130
OSHKOSH, WI 54903
OFFICE: (920) 236-5065
dpatek@ci.oshkosh.wi.us

AMERICAN TRANSMISSION COMPANY LLC
(ELECTRIC - TRANSMISSION)
MIKE OLSEN
SENIOR SURVEYING SPECIALIST
801 O'KEEFE ROAD
PO BOX 6113
DE PERE, WI 54115-6113
OFFICE: (920) 338-6582
CELL: (920) 660-2390
molsen@attllc.com

AT&T WISCONSIN
(TELECOMMUNICATIONS)
CHARLES BARTELT
70 EAST DIVISION STREET
FOND DU LAC, WI 54935
OFFICE: (920) 929-1013
CELL: (920) 410-5105
cb1461@att.com

KDL
(TELECOMMUNICATIONS)
JIM KOSTUCH
13935 BISHOPS DRIVE
BROOKFIELD, WI 53005
(414) 313-9032
Jim.kostuch@kdllnc.com

TIME WARNER CABLE
(TELECOMMUNICATIONS)
VINCE ALBIN
CONSTRUCTION ADMINISTRATOR
3520 DESTINATION DRIVE
APPLETON, WI 54195
OFFICE: (920) 831-9249
CELL: (920) 378-0488
vince.albin@twcable.com

UTILITIES

SUNSET POINT SANITARY DISTRICT
(SANITARY SEWER)
BARB WALKER
BUSINESS SECRETARY
PO BOX 2312
OSHKOSH, WI 54903-2312
(920) 420-7344
barbw@new.rrr.com

WISCONSIN PUBLIC SERVICE CORPORATION
(ELECTRIC DISTRIBUTION)
DAVE PETERSEN
REGIONAL ELECTRIC ENGINEER
3300 N. MAIN STREET
PO BOX 420
OSHKOSH, WI 54903-0420
OFFICE: (920) 236-5910
CELL: (920) 680-2036
dtpetersen@wisconsinpublicservice.com

(GAS DISTRIBUTION)
PAUL SPANGLER
REGIONAL GAS ENGINEER
3330 N. MAIN STREET
PO BOX 420
OSHKOSH, WI 54903-0420
OFFICE: (920) 236-5908
CELL: (920) 660-3150
paspangler@wisconsinpublicservice.com

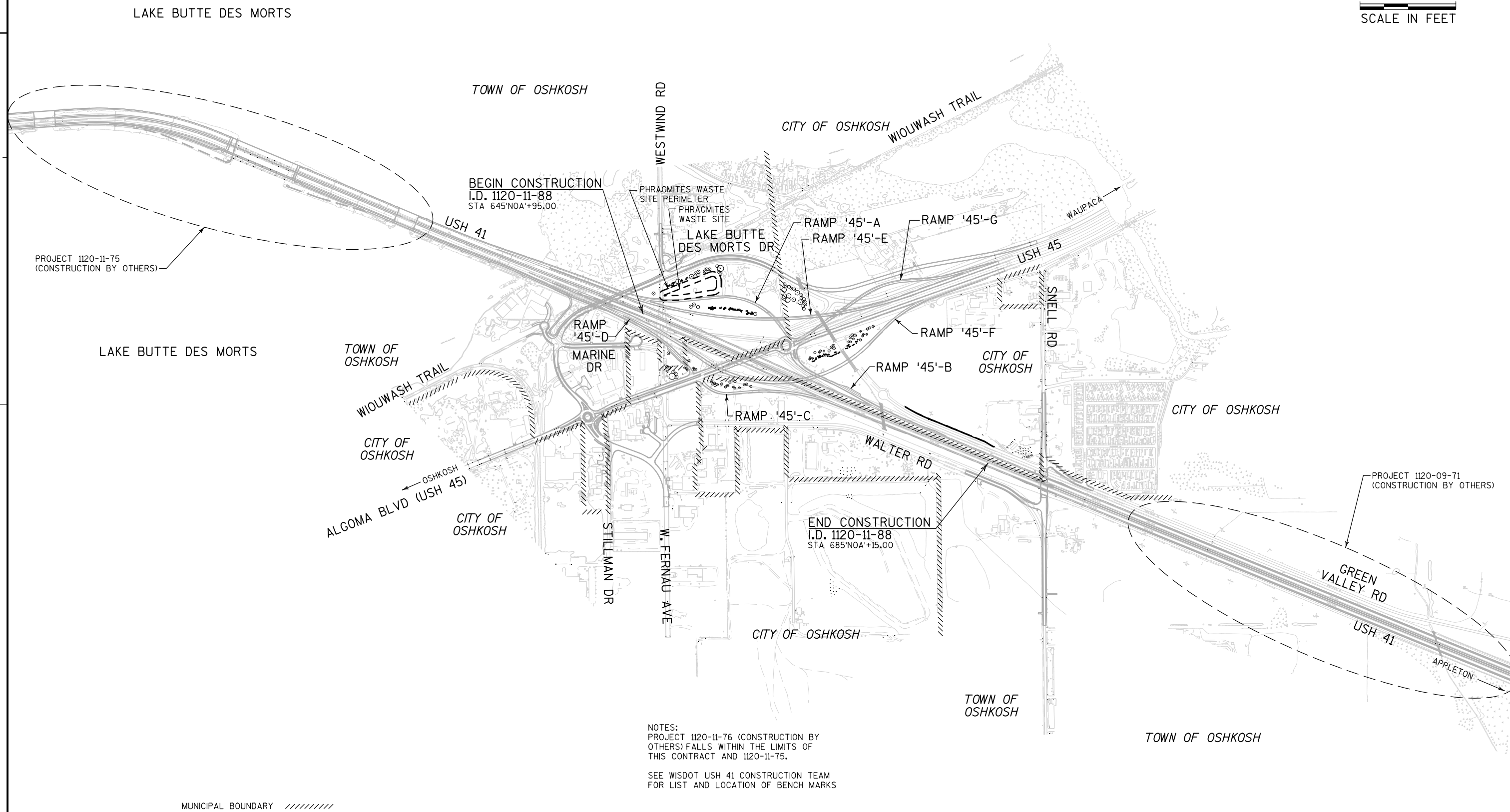
TRANSCANADA
(GAS PIPELINE)
MARK BIRSCHBACK
W3925 PIPELINE LANE
EDEN, WI 53019
OFFICE: (920) 477-2242
CELL: (920) 375-0467
mark.birschback@transcanada.com

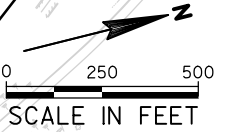


**Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com**

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

WISCONSIN STATUTE 182.0175 (1974) REQUIRES MINIMUM OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.





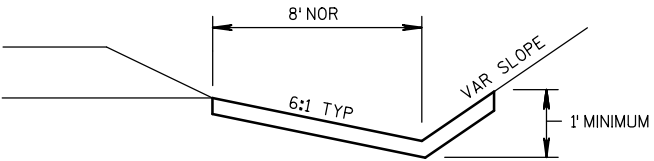
RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 130 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 22 ACRES

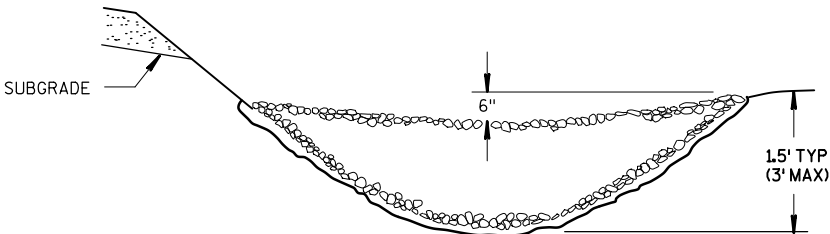


FLAT BOTTOM DITCHES

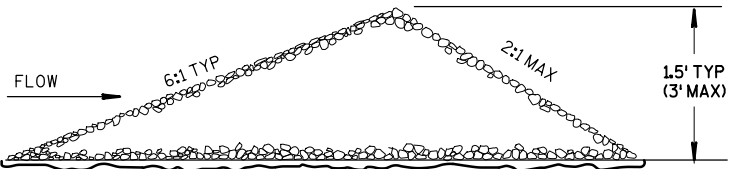


V-DITCHES

EROSION MAT DETAILS FOR DITCHES

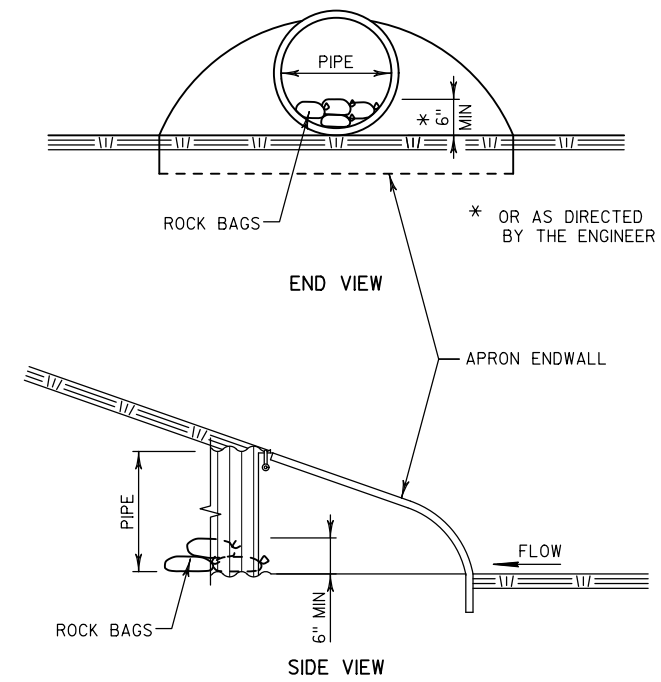


CROSS SECTIONAL VIEW



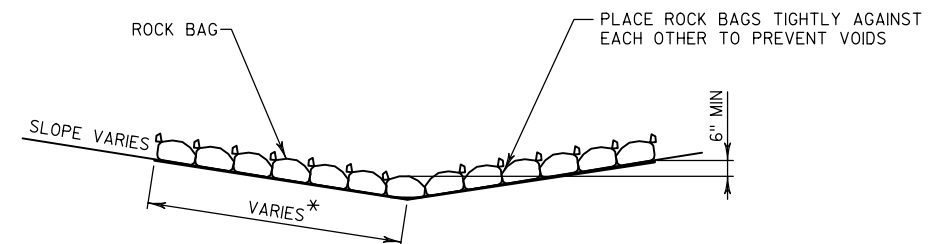
PROFILE VIEW

TEMPORARY STONE DITCH CHECK DETAIL

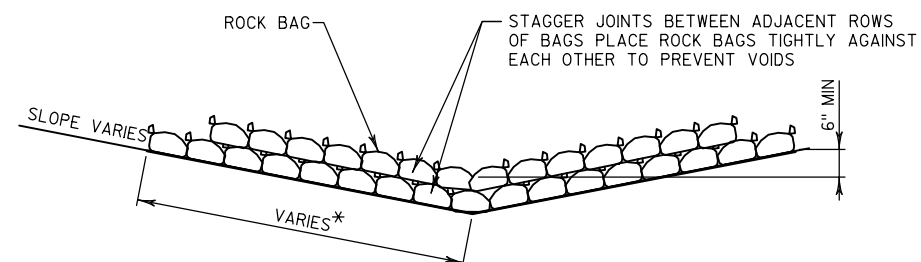


ESTIMATED BAG SIZE = 24" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
24"	3
30"	5
36"	7
42"	7
30"X19"	5
38"X24"	7
53"X34"	10

CULVERT PIPE ENDS



SIDE VIEW (SINGLE LAYER)

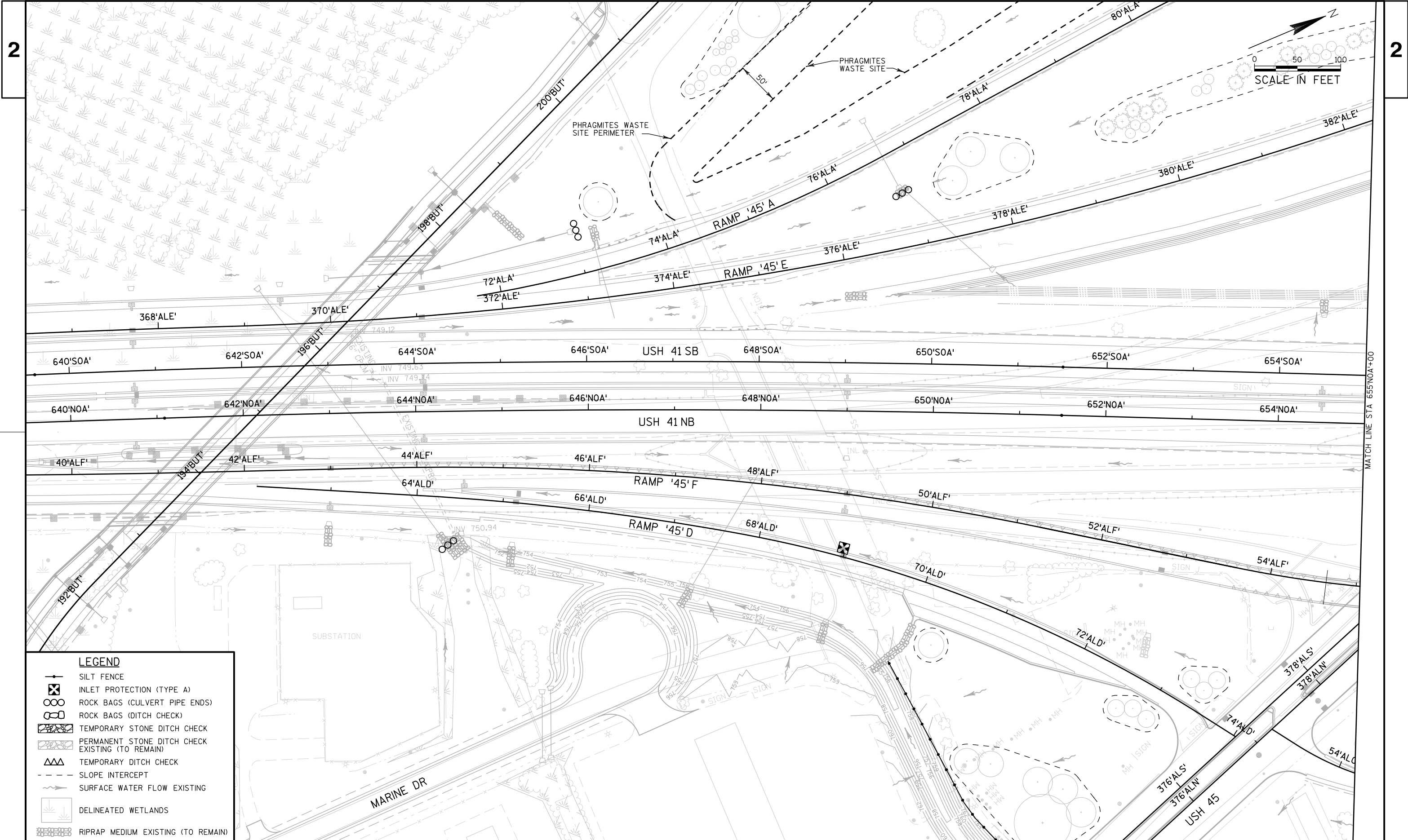


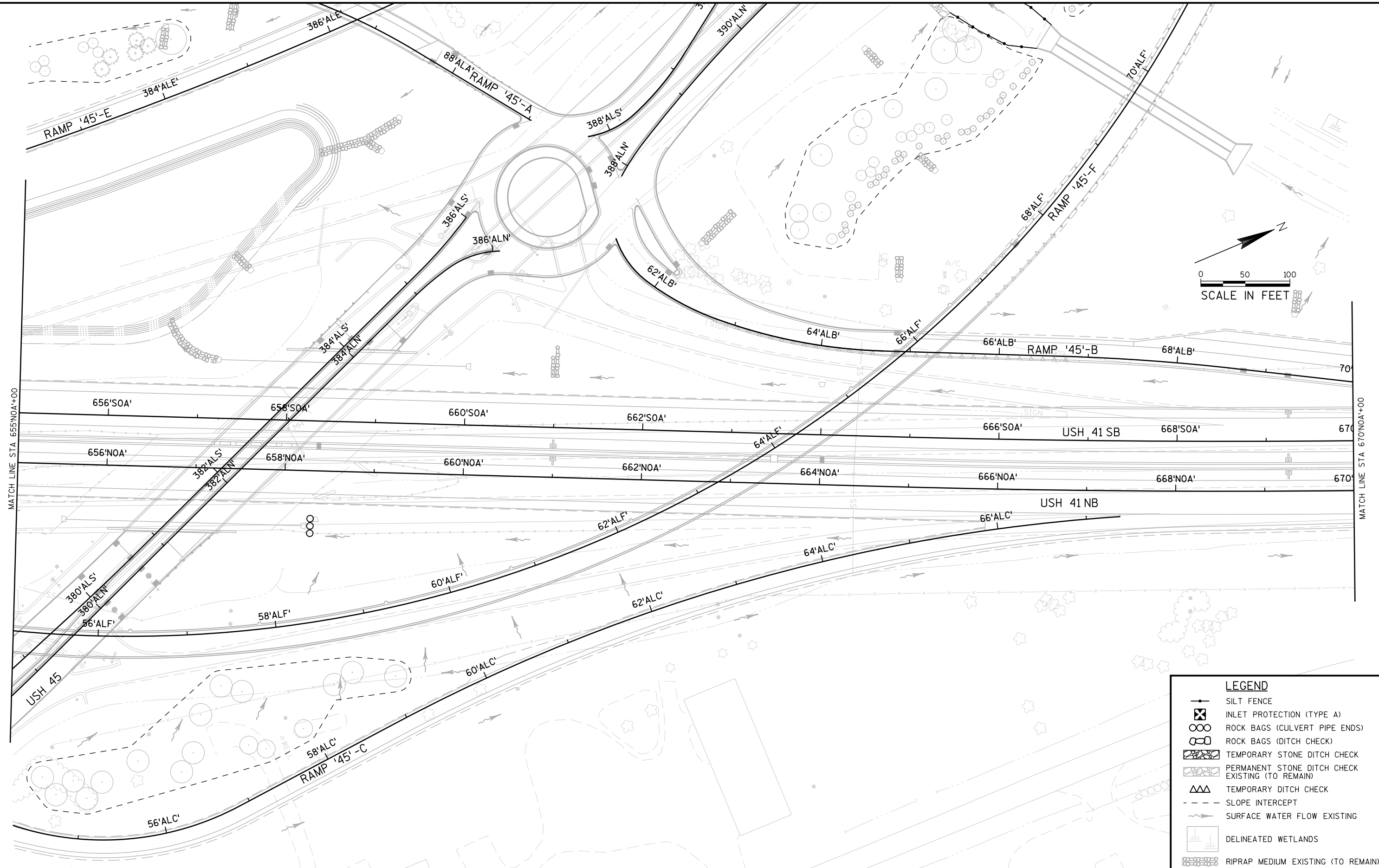
* LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL

SIDE VIEW (MULTIPLE LAYER)

DITCH CHECKS

ROCK BAGS DETAIL



**LEGEND**

- SILT FENCE
- INLET PROTECTION (TYPE A)
- ROCK BAGS (CULVERT PIPE ENDS)
- ROCK BAGS (DITCH CHECK)
- TEMPORARY STONE DITCH CHECK
- PERMANENT STONE DITCH CHECK EXISTING (TO REMAIN)
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT
- SURFACE WATER FLOW EXISTING
- DELINEATED WETLANDS
- RIPRAP MEDIUM EXISTING (TO REMAIN)

PROJECT NO: 1120-11-88

HWY: USH 41

COUNTY: WINNEBAGO

EROSION CONTROL TEMPORARY

SHEET

E

FILE NAME : ch_1188-022102-ect.dgn

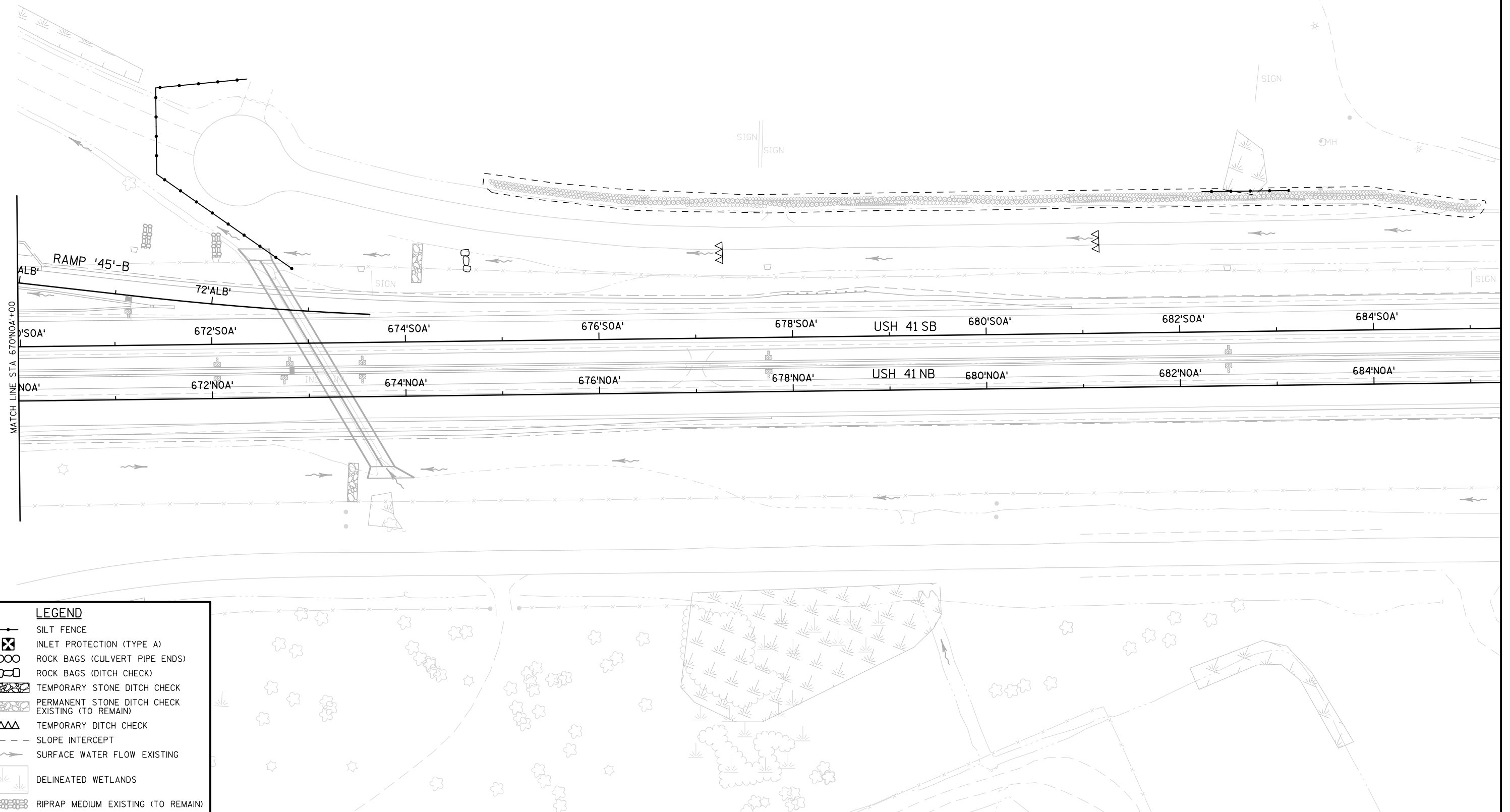
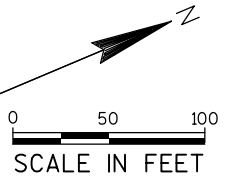
PLOT DATE : 18-OCT-2012

PLOT BY : mmorgan

PLOT NAME :

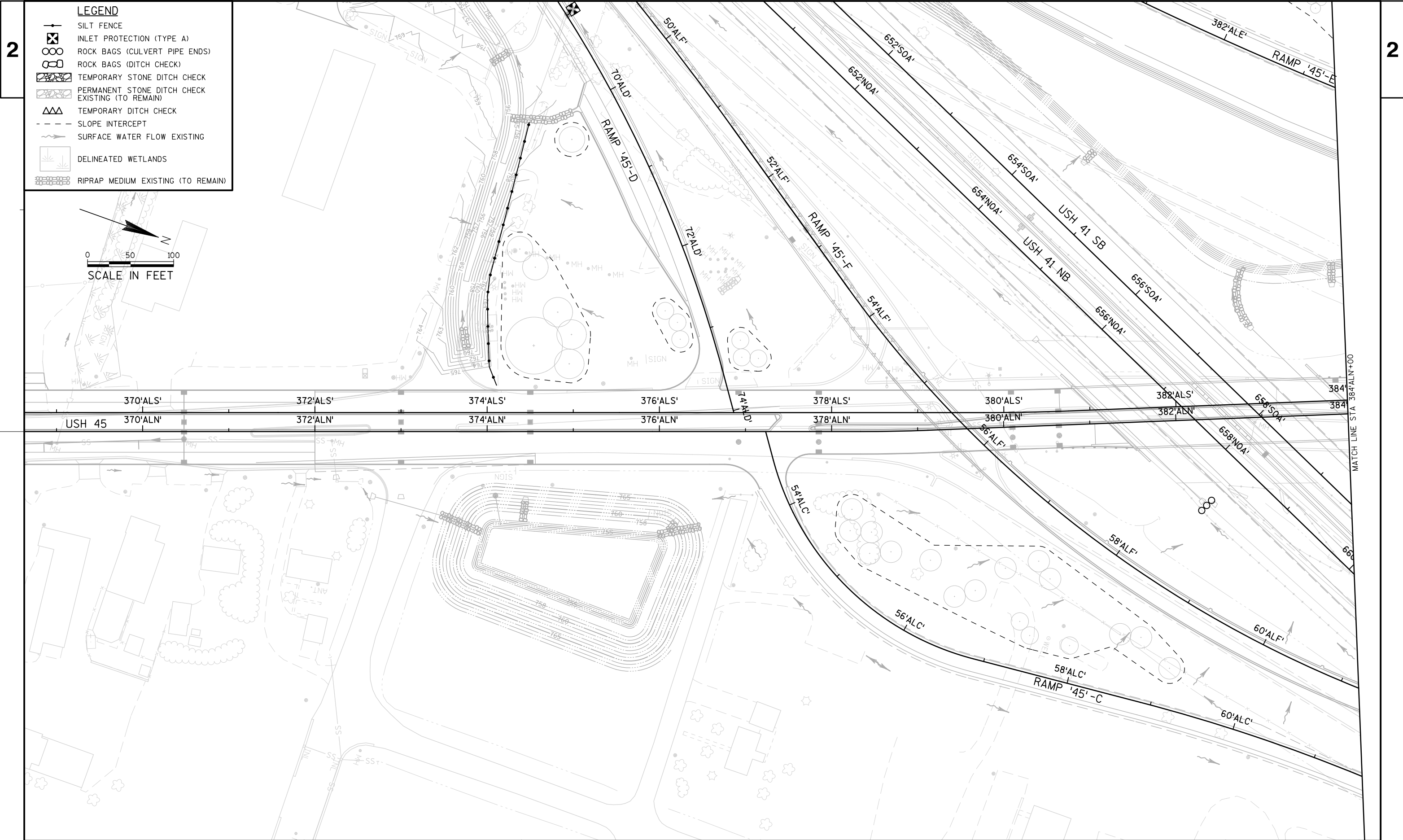
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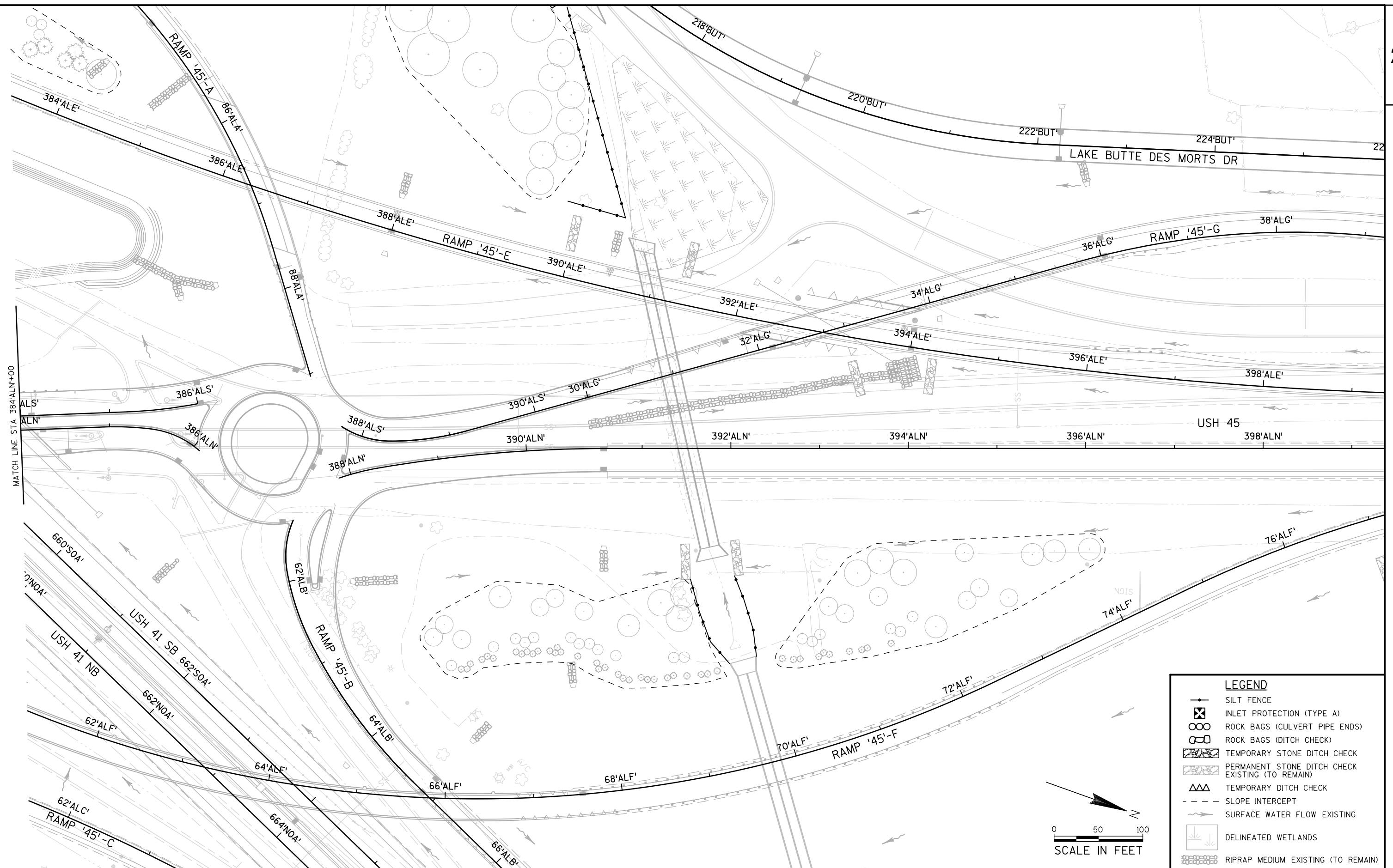
WISDOT/CADDs SHEET 42



LEGEND

- SILT FENCE
- INLET PROTECTION (TYPE A)
- ROCK BAGS (CULVERT PIPE ENDS)
- ROCK BAGS (DITCH CHECK)
- TEMPORARY STONE DITCH CHECK
- PERMANENT STONE DITCH CHECK EXISTING (TO REMAIN)
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT
- SURFACE WATER FLOW EXISTING
- DELINEATED WETLANDS
- RIPRAP MEDIUM EXISTING (TO REMAIN)





PROJECT NO: 1120-11-88

HWY: USH 41

COUNTY: WINNEBAGO

EROSION CONTROL TEMPORARY

SHEET

E

FILE NAME : ch_1188_022105_ect.dgn

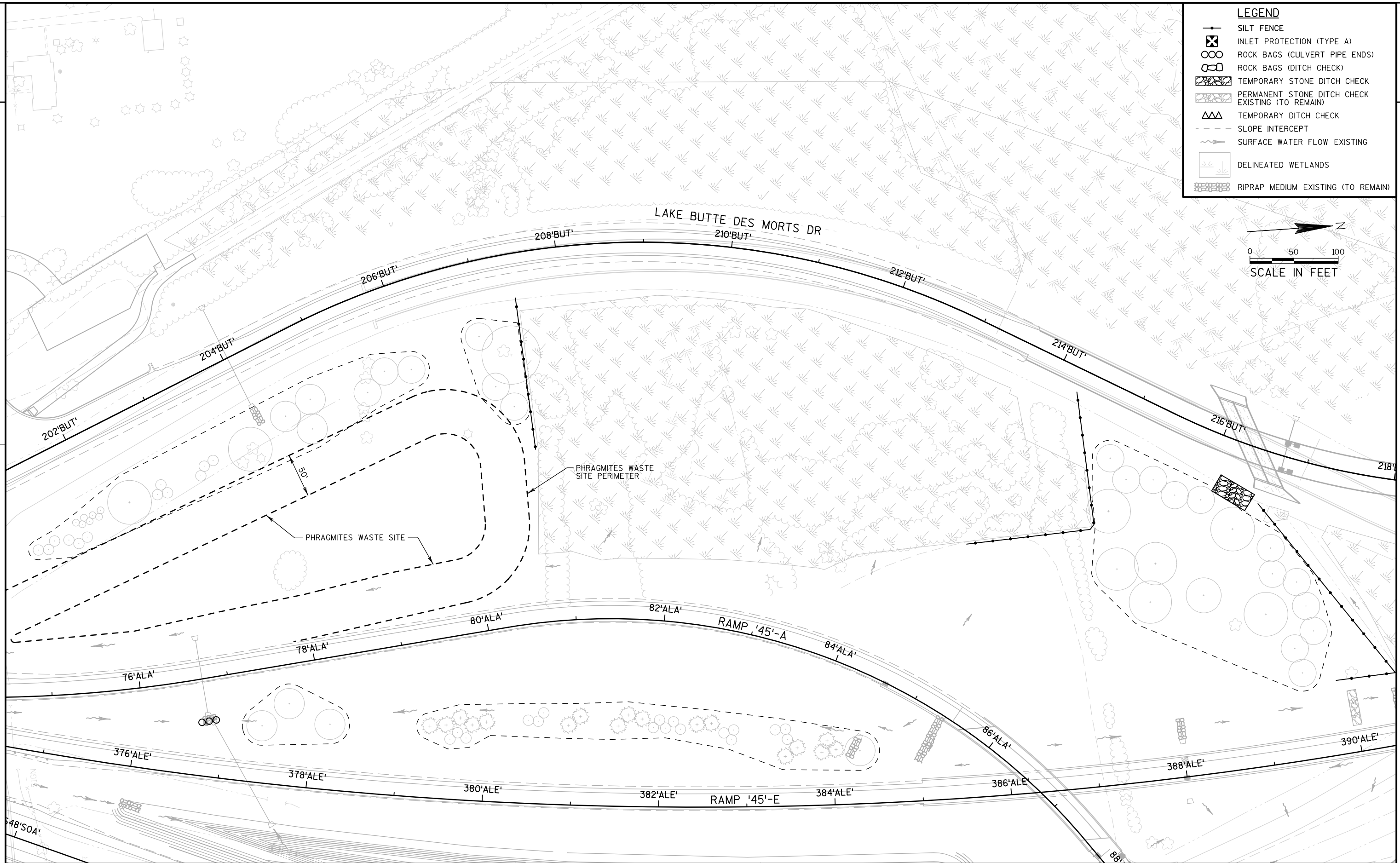
PLOT DATE : 18-OCT-2012

PLOT BY : mmorgan

PLOT NAME :

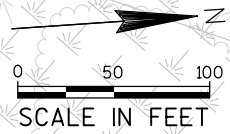
PLOT SCALE : 100:1

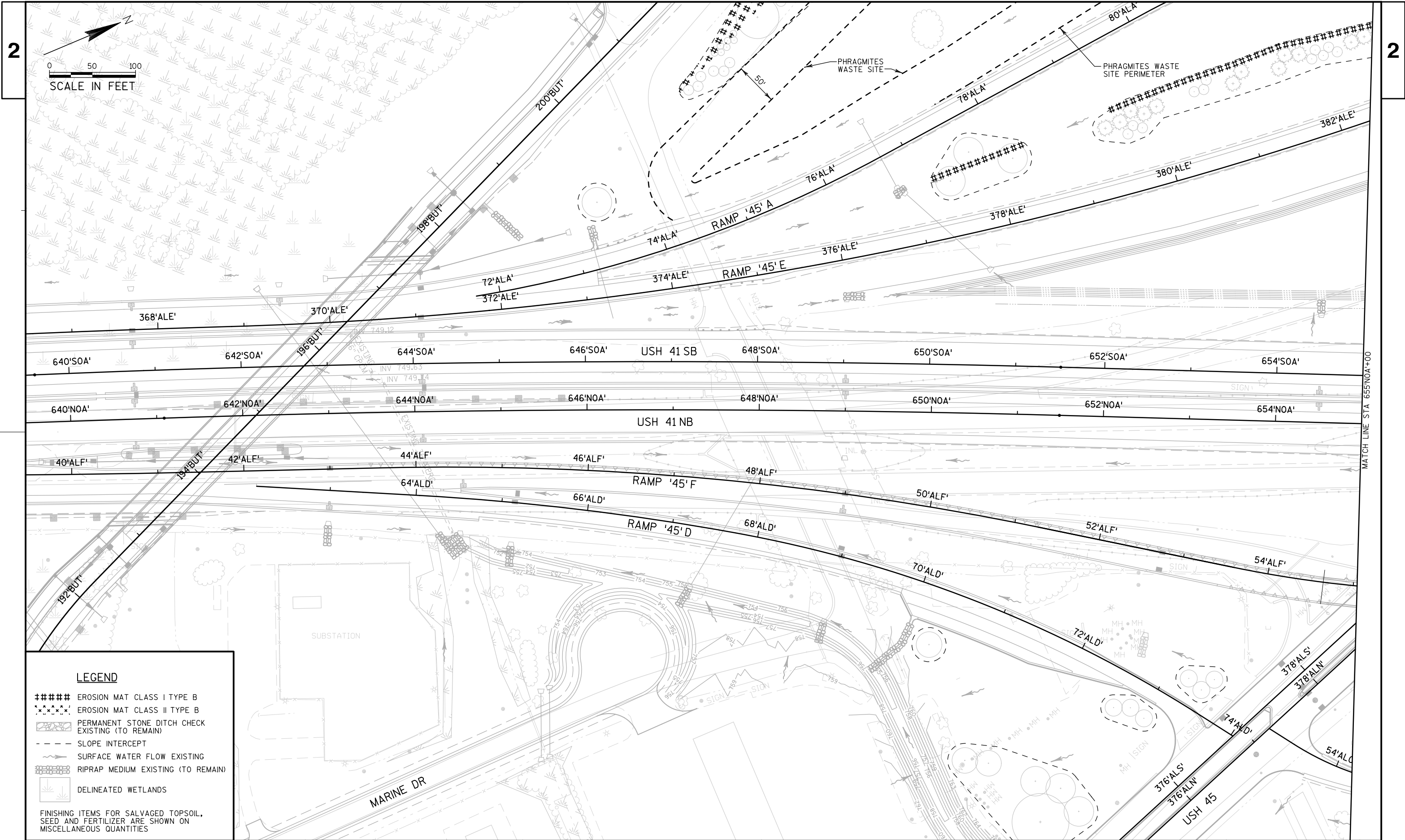
WISDOT/CADDs SHEET 42



LEGEND

- SILT FENCE
- INLET PROTECTION (TYPE A)
- ROCK BAGS (CULVERT PIPE ENDS)
- ROCK BAGS (DITCH CHECK)
- TEMPORARY STONE DITCH CHECK
- PERMANENT STONE DITCH CHECK EXISTING (TO REMAIN)
- TEMPORARY DITCH CHECK
- SLOPE INTERCEPT
- SURFACE WATER FLOW EXISTING
- DELINEATED WETLANDS
- RIPRAP MEDIUM EXISTING (TO REMAIN)





LEGEND

#####

 EROSION MAT CLASS I TYPE B

 EROSION MAT CLASS II TYPE B

 PERMANENT STONE DITCH CHECK EXISTING (TO REMAIN)

 SLOPE INTERCEPT

~~~~~

 SURFACE WATER FLOW EXISTING

|||||

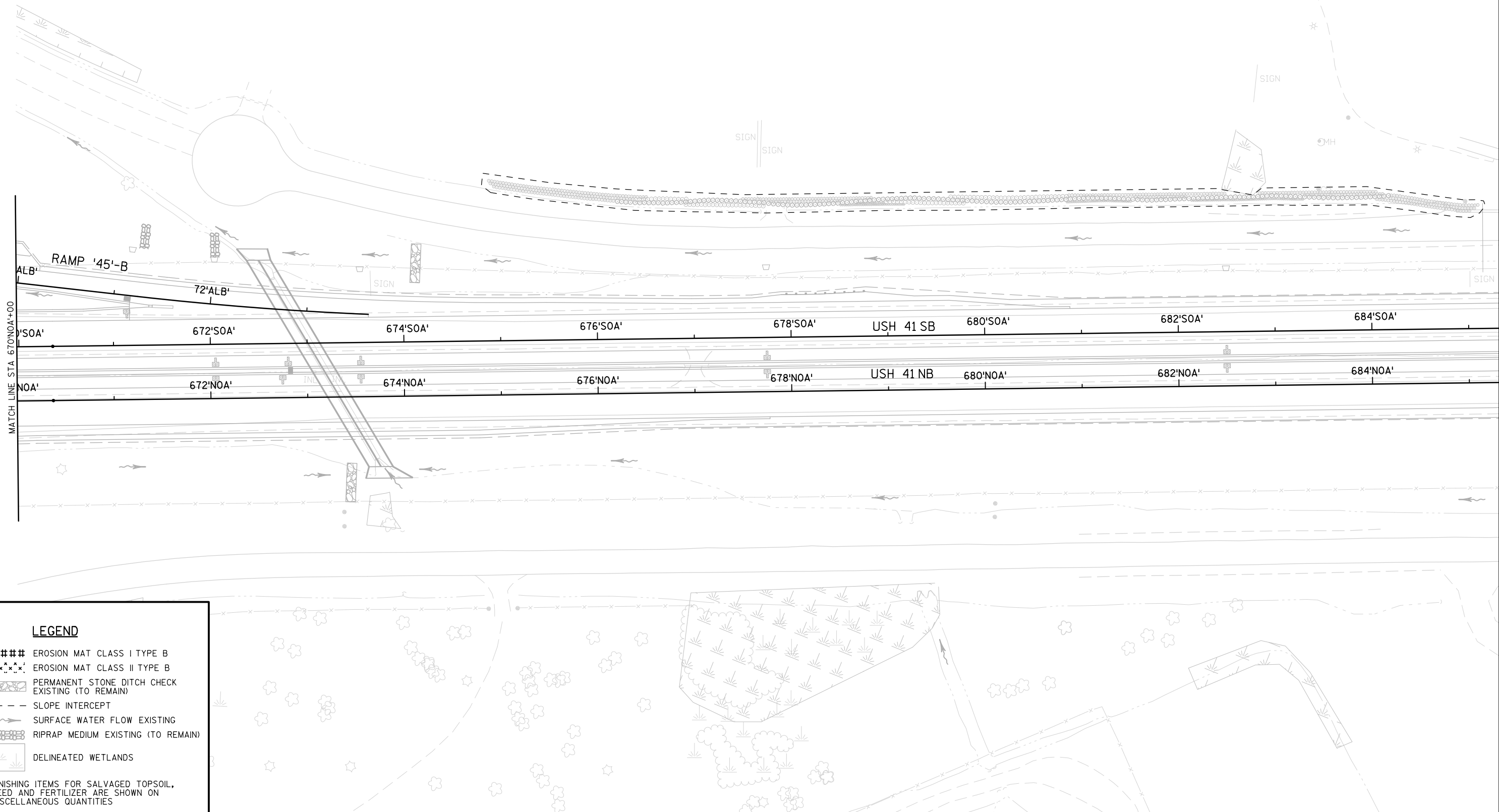
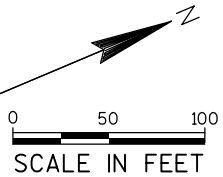
 RIPRAP MEDIUM EXISTING (TO REMAIN)

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 DELINEATED WETLANDS

FINISHING ITEMS FOR SALVAGED TOPSOIL, SEED AND FERTILIZER ARE SHOWN ON MISCELLANEOUS QUANTITIES





LEGEND

#####

 EROSION MAT CLASS I TYPE B

 EROSION MAT CLASS II TYPE B

=====

 PERMANENT STONE DITCH CHECK EXISTING (TO REMAIN)

 SLOPE INTERCEPT

~~~~~

 SURFACE WATER FLOW EXISTING

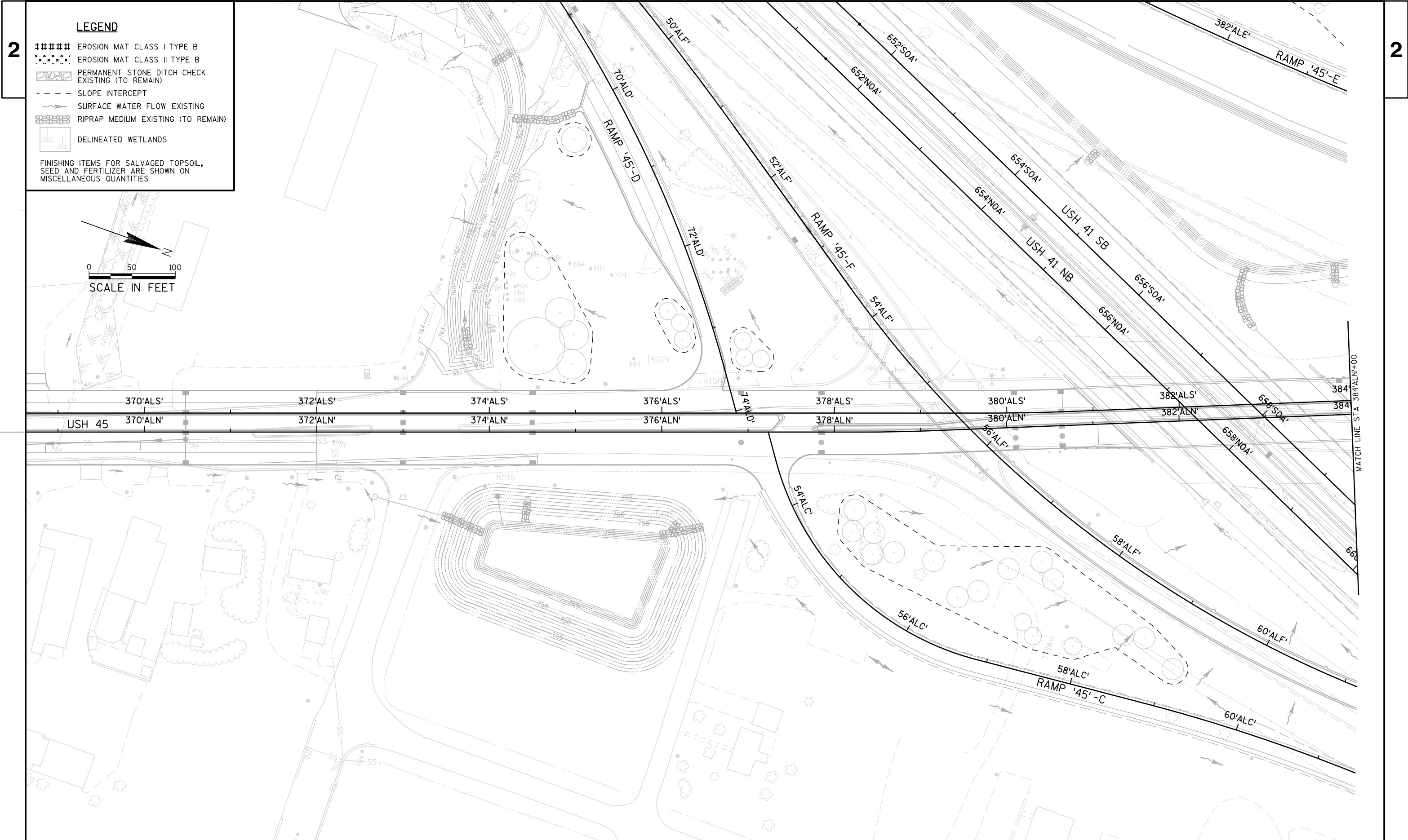
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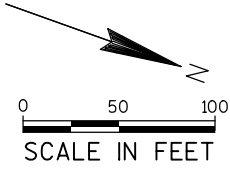
 RIPRAP MEDIUM EXISTING (TO REMAIN)

~~~~~

 DELINEATED WETLANDS

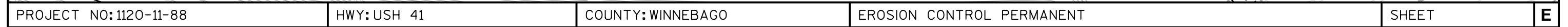
FINISHING ITEMS FOR SALVAGED TOPSOIL, SEED AND FERTILIZER ARE SHOWN ON MISCELLANEOUS QUANTITIES

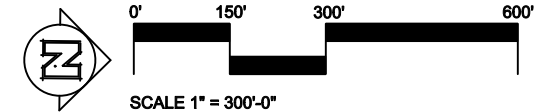




LEGEND

#####	EROSION MAT CLASS I TYPE B
*****	EROSION MAT CLASS II TYPE B
	PERMANENT STONE DITCH CHECK EXISTING (TO REMAIN)
-----	SLOPE INTERCEPT
	SURFACE WATER FLOW EXISTING
	RIPRAP MEDIUM EXISTING (TO REMAIN)
	DELINEATED WETLANDS
FINISHING ITEMS FOR SALVAGED TOPSOIL, SEED AND FERTILIZER ARE SHOWN ON MISCELLANEOUS QUANTITIES	



**NOTES:**

THE CONTRACTOR WILL BE FULLY RESPONSIBLE FOR REPAIRING ANY AND ALL AREAS DISTURBED BY PLANTING OPERATIONS WITH WISDOT NO. 40 SEED MIX AND APPROPRIATE EROSION CONTROL MATERIAL AND/OR MULCH ACCORDING TO SECTION 630 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURES CONSTRUCTION, CURRENT EDITION AND THE EROSION CONTROL TEMPORARY AND PERMANENT PLANS INCLUDED IN THIS CONTRACT.

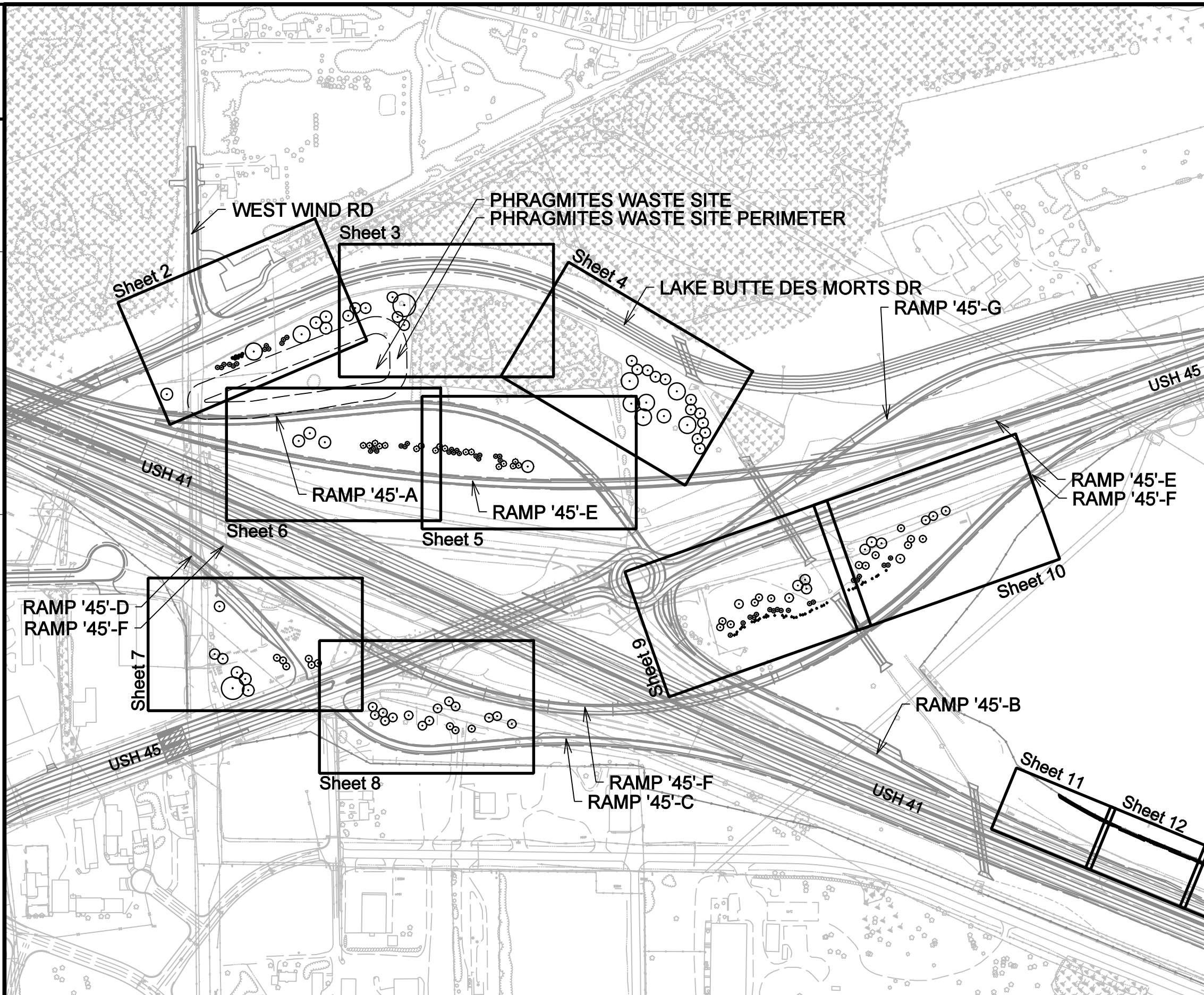
THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING AND PROPOSED UTILITIES AND SHALL ADJUST PLANT LOCATIONS AS NECESSARY TO ACCOMMODATE UTILITY REQUIREMENTS.

PLANS PREPARED BY KEN SAIKI DESIGN,
MADISON, WI (608) 251-3600

LEGEND

- | | |
|--|-----------------------------------|
| | ← PLANT SYMBOL |
| | ← QUANTITY |
| | STATION POINT |
| | DECIDUOUS PLANT MATERIAL LOCATION |
| | EVERGREEN PLANT MATERIAL LOCATION |
| | SHREDDED HARDWOOD BARK MULCH |
| | SHOVEL CUT EDGE |

1 OF 17



PROJECT NO: 1120-11-88

HWY: USH 41

COUNTY: WINNEBAGO

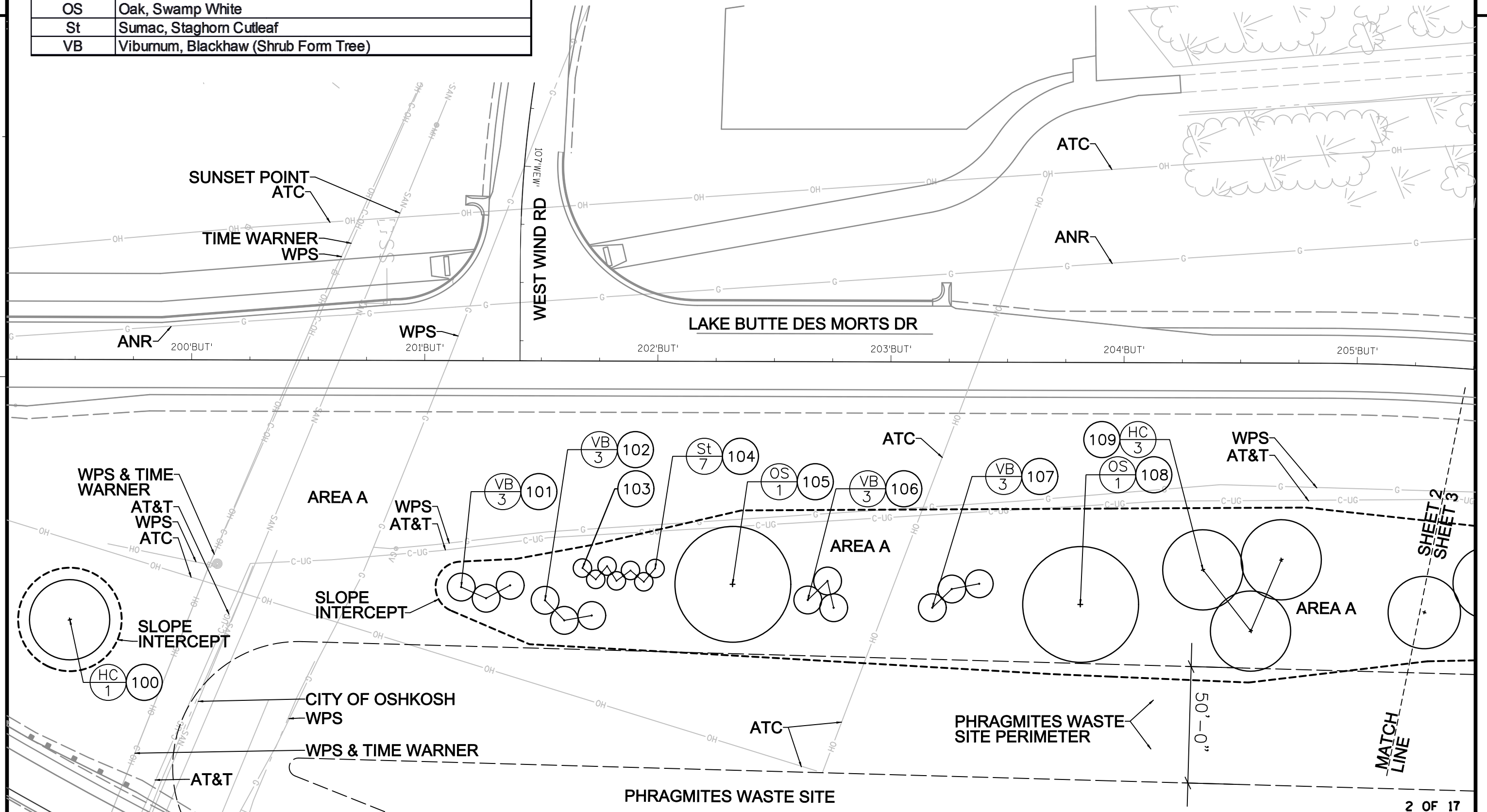
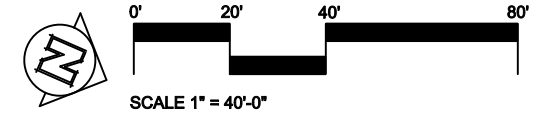
PLAN LAYOUT OVERVIEW

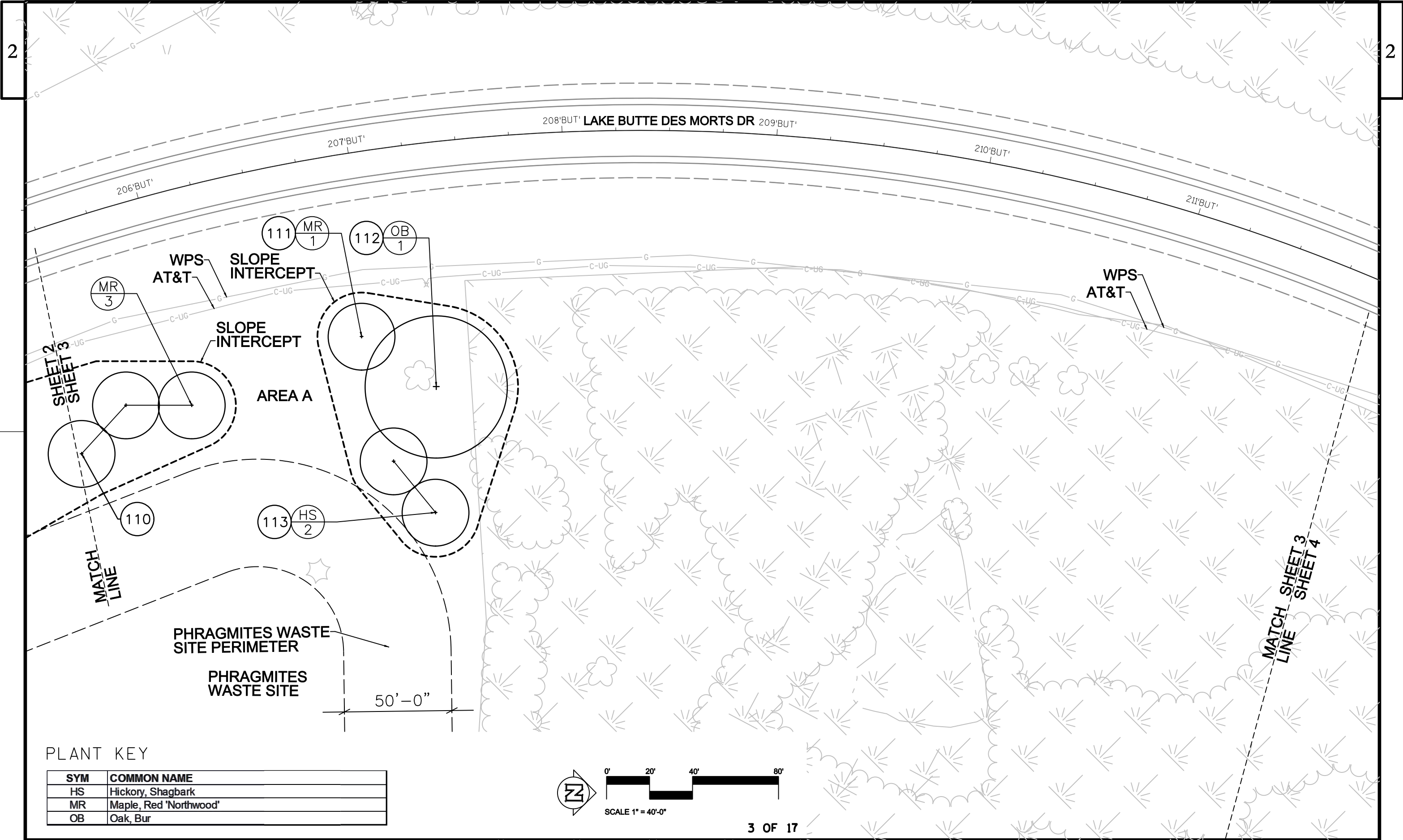
SHEET

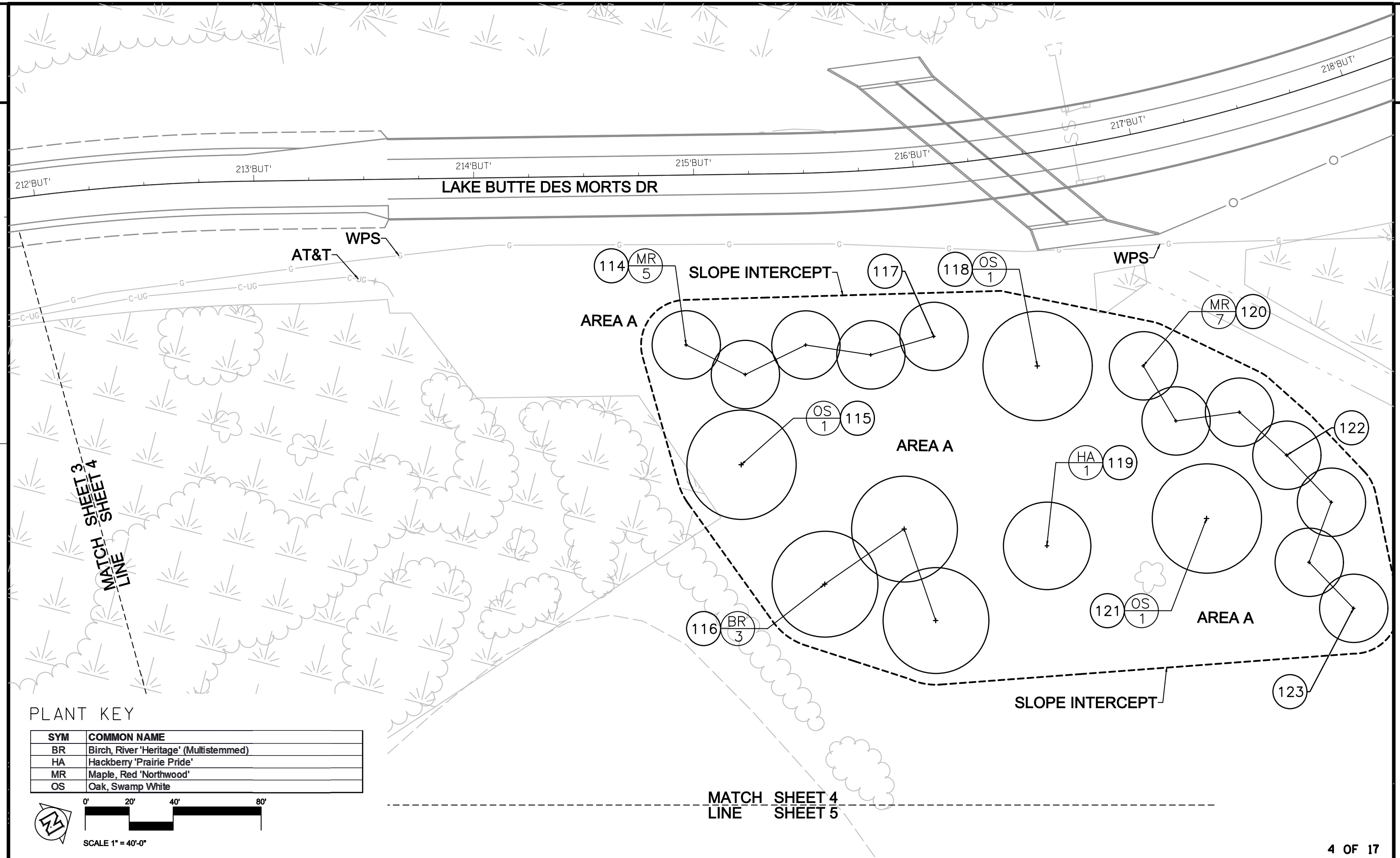
E

PLANT KEY

SYM	COMMON NAME
HC	Hawthorn, Cockspur (Thornless)
OS	Oak, Swamp White
St	Sumac, Staghorn Cutleaf
VB	Viburnum, Blackhaw (Shrub Form Tree)

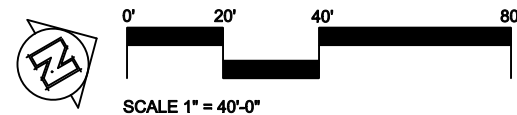




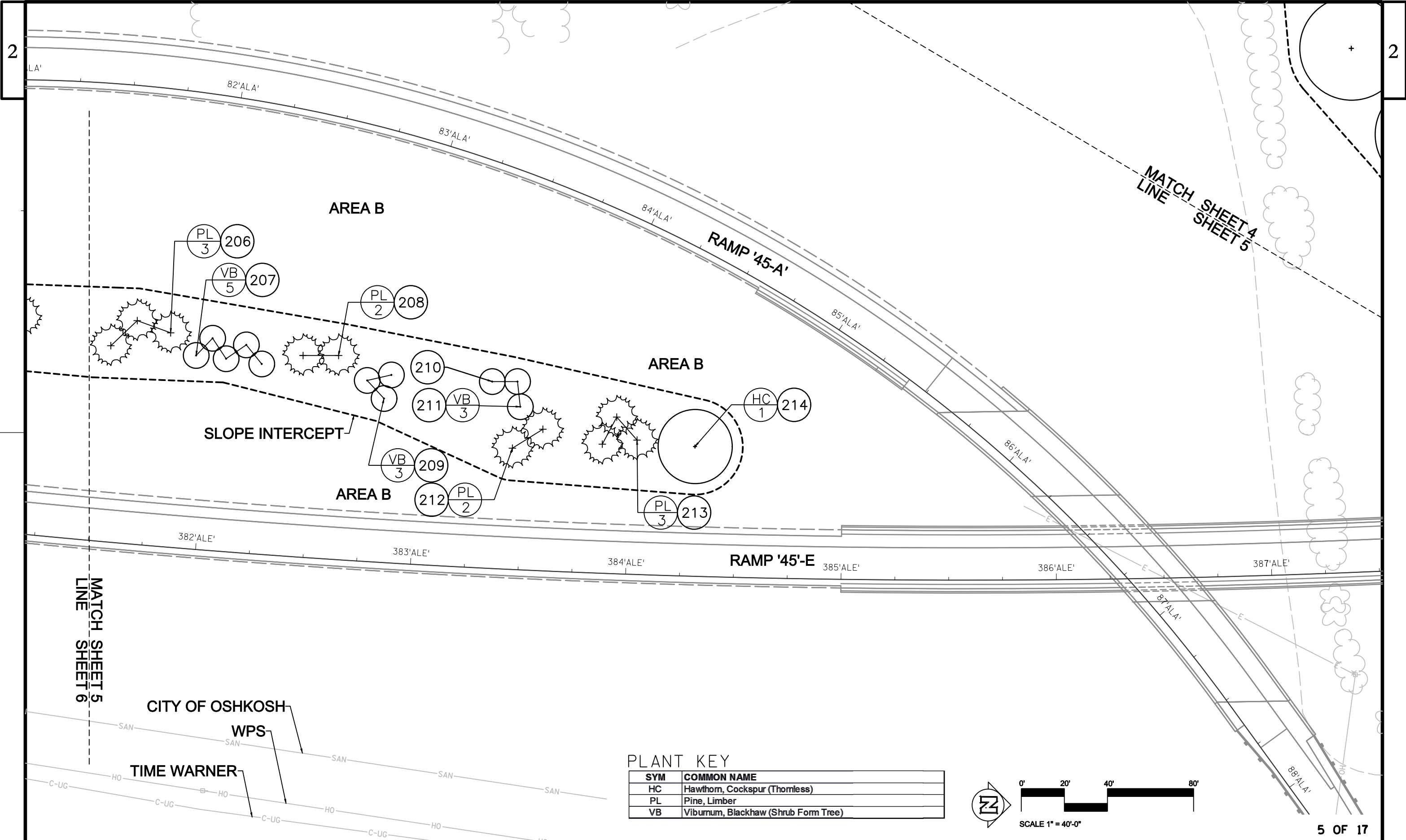


PLANT KEY

SYM	COMMON NAME
BR	Birch, River 'Heritage' (Multistemmed)
HA	Hackberry 'Prairie Pride'
MR	Maple, Red 'Northwood'
OS	Oak, Swamp White

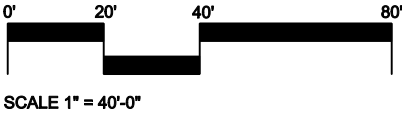


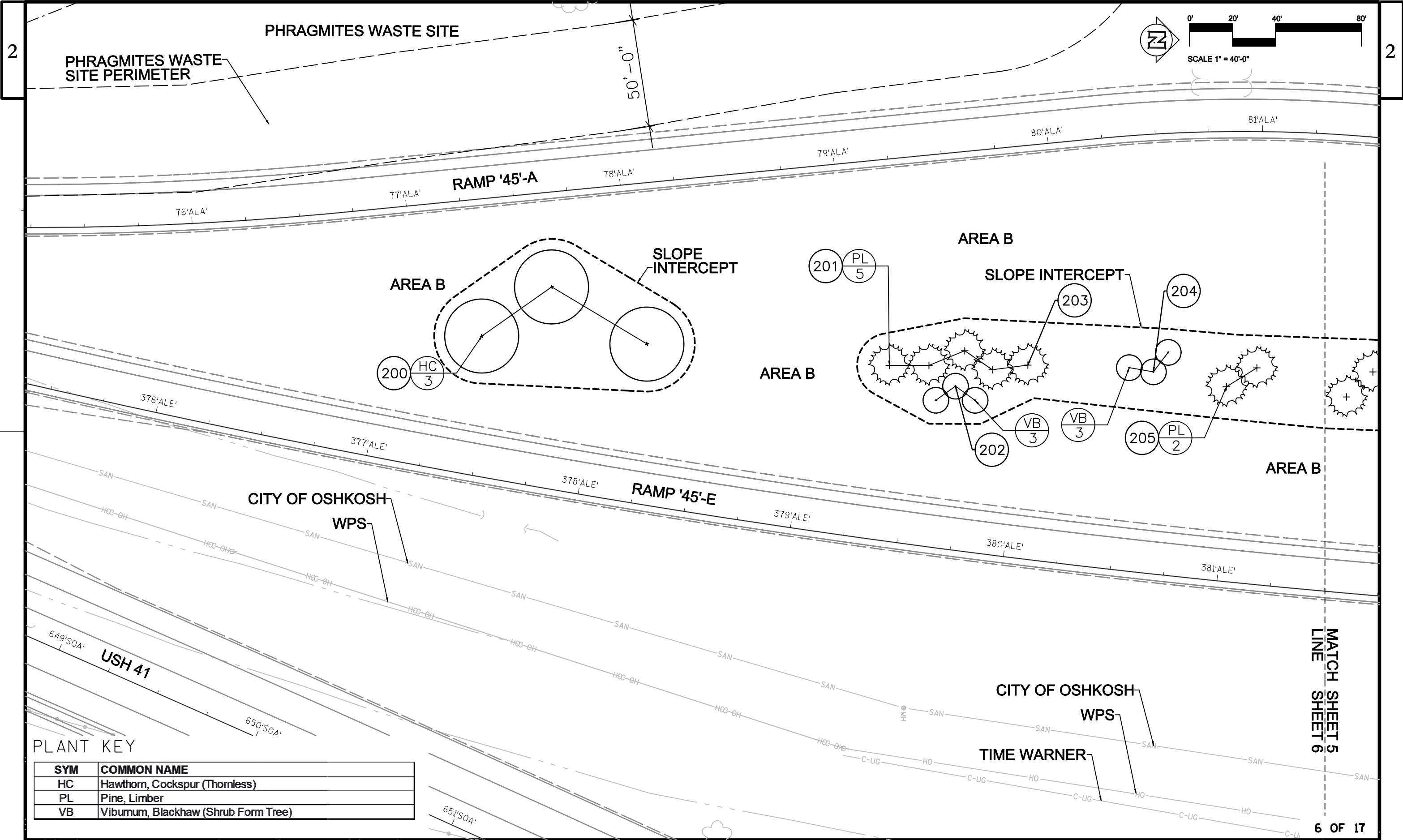
MATCH LINE SHEET 4
SHEET 5



PLANT KEY

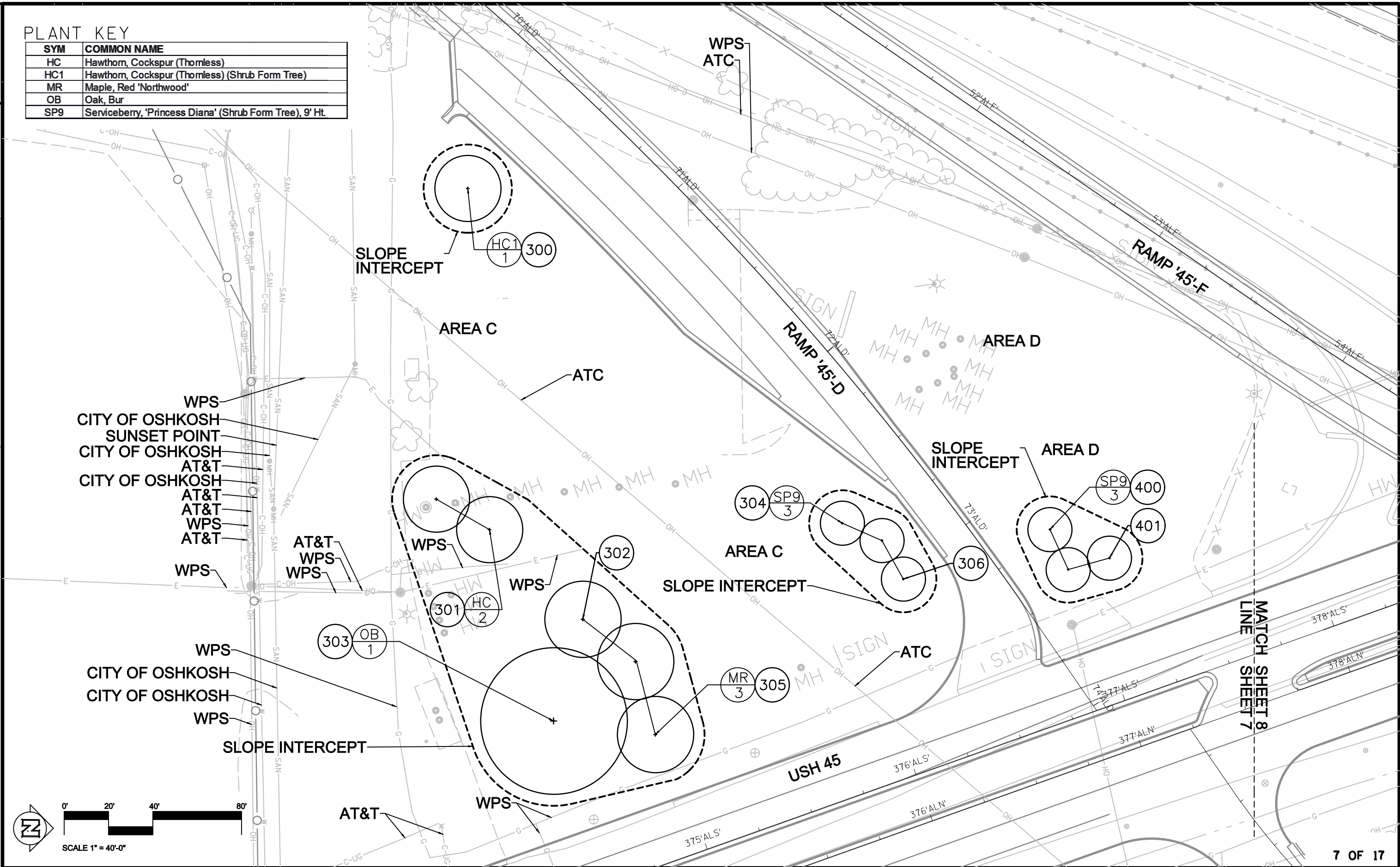
SYM	COMMON NAME
HC	Hawthorn, Cockspur (Thornless)
PL	Pine, Limber
VB	Viburnum, Blackhaw (Shrub Form Tree)

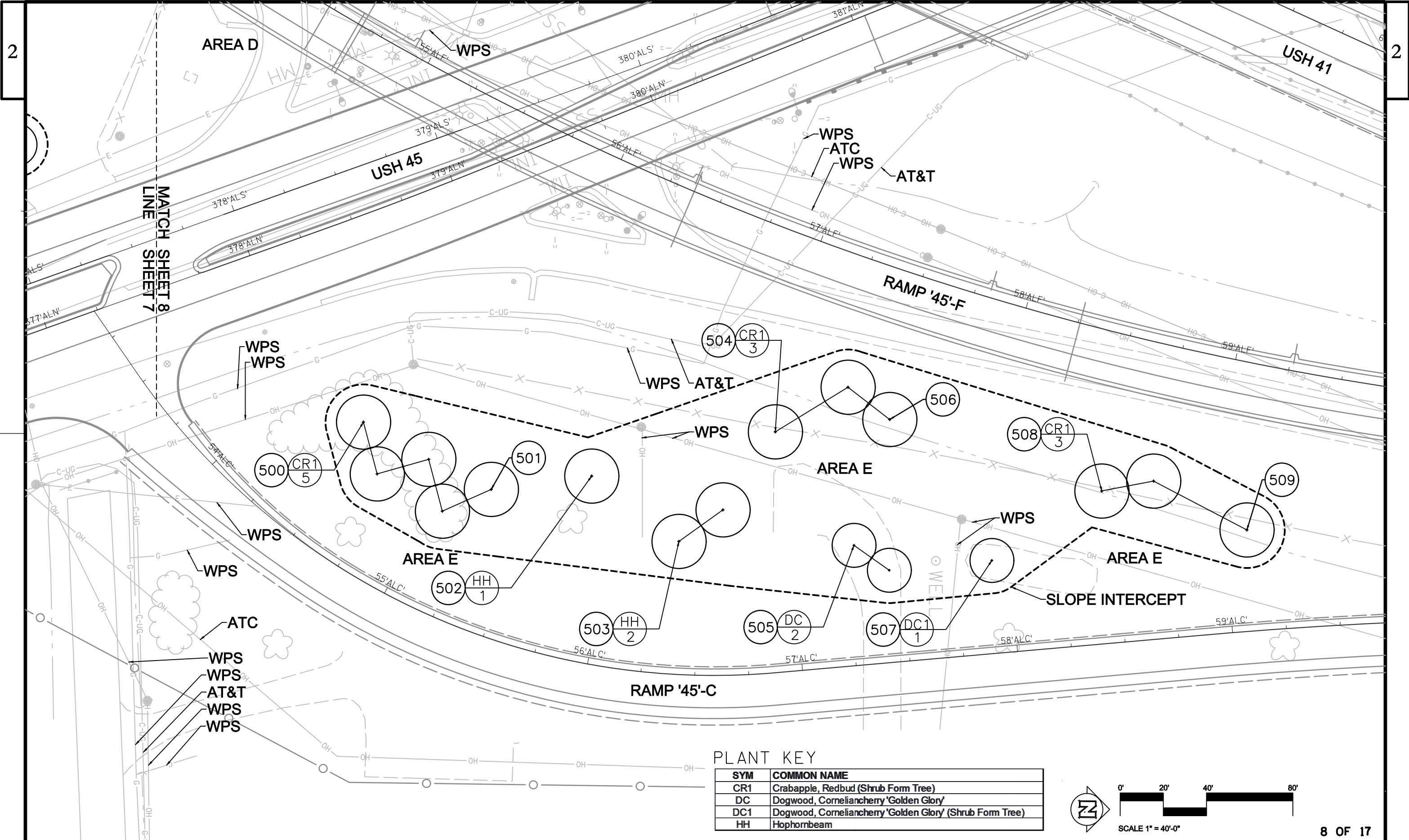




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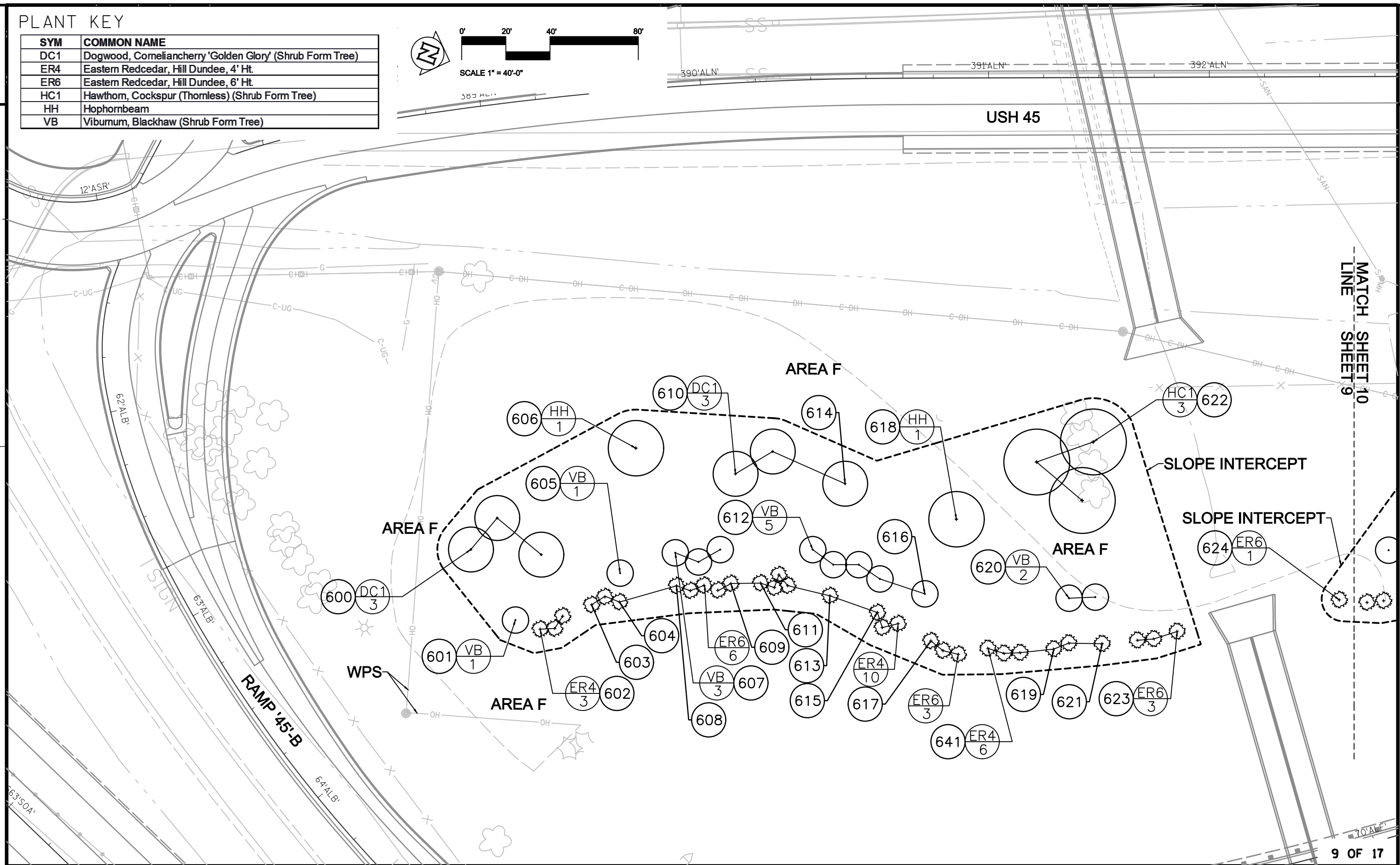
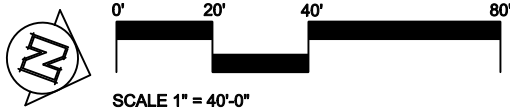
SYM	COMMON NAME
HC	Hawthorn, Cockspur (Thornless)
HC1	Hawthorn, Cockspur (Thornless) (Shrub Form Tree)
MR	Maple, Red 'Northwood'
OB	Oak, Bur
SP9	Serviceberry, 'Princess Diana' (Shrub Form Tree), 9' Ht.

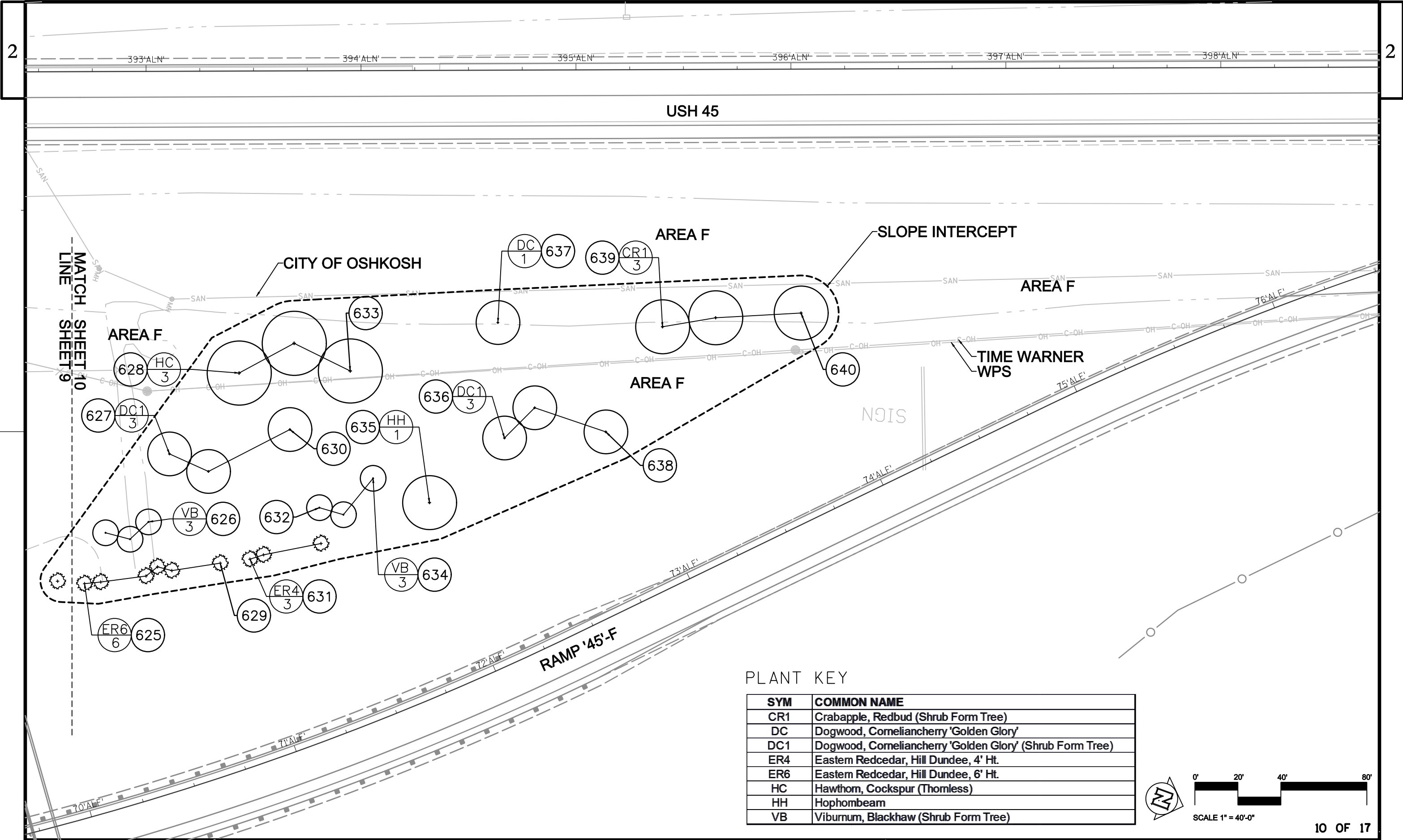


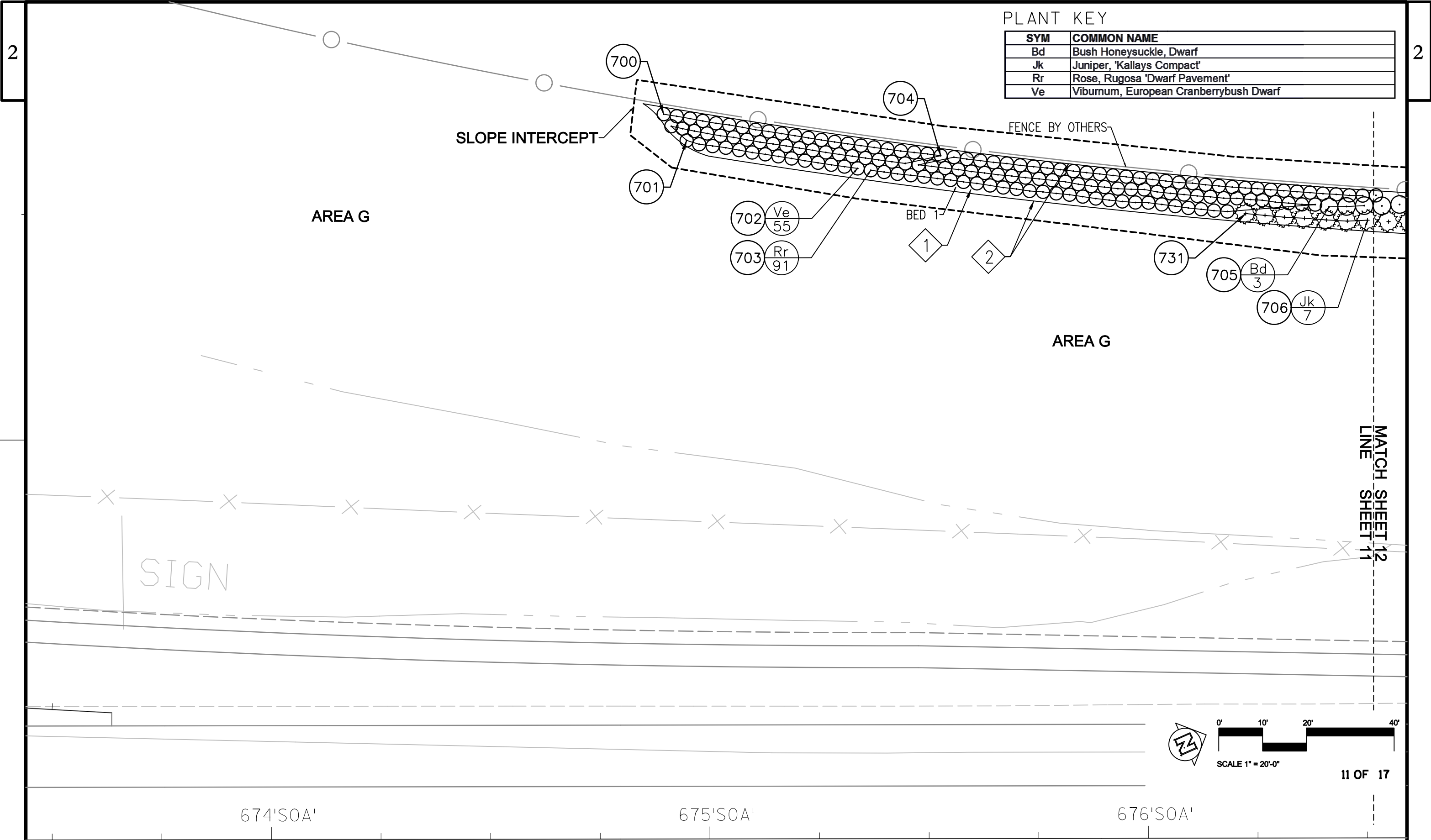


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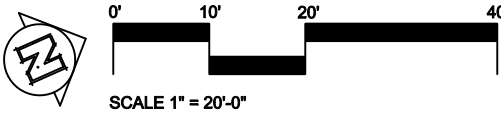
SYM	COMMON NAME
DC1	Dogwood, Corneliancherry 'Golden Glory' (Shrub Form Tree)
ER4	Eastern Redcedar, Hill Dundee, 4' Ht.
ER6	Eastern Redcedar, Hill Dundee, 6' Ht.
HC1	Hawthorn, Cockspur (Thornless) (Shrub Form Tree)
HH	Hophornbeam
VB	Viburnum, Blackhaw (Shrub Form Tree)







PLANT KEY	
SYM	COMMON NAME
Bd	Bush Honeysuckle, Dwarf
Jk	Juniper, 'Kallays Compact'
Rr	Rose, Rugosa 'Dwarf Pavement'
Ve	Viburnum, European Cranberrybush Dwarf



11 OF 17

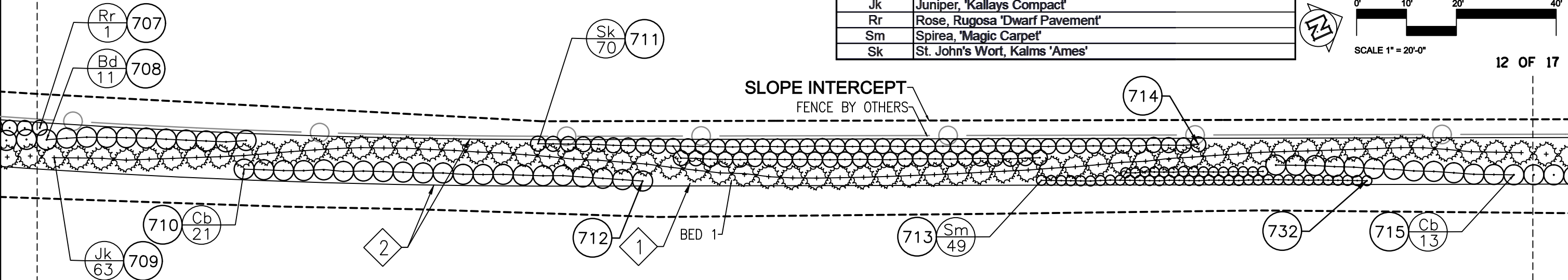
PLANT KEY

SYM	COMMON NAME
Bd	Bush Honeysuckle, Dwarf
Cb	Chokeberry, Black 'Iroquois Beauty'
Jk	Juniper, 'Kallays Compact'
Rr	Rose, Rugosa 'Dwarf Pavement'
Sm	Spirea, 'Magic Carpet'
Sk	St. John's Wort, Kalms 'Ames'



SCALE 1" = 20'-0"

12 OF 17



AREA G

AREA G

MATCH SHEET 12
LINE SHEET 11

MATCH SHEET 13
LINE SHEET 12

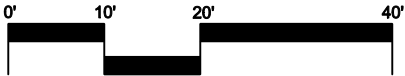
677'SOA'

678'SOA'

679'SOA'

PLANT KEY

SYM	COMMON NAME
Bd	Bush Honeysuckle, Dwarf
Cb	Chokeberry, Black 'Iroquois Beauty'
Dr	Dogwood, Red Twig 'Arctic Fire'
Jk	Juniper, 'Kallays Compact'
Sm	Spirea, 'Magic Carpet'
Sk	St. John's Wort, Kalms 'Ames'



SCALE 1" = 20'-0"

13 OF 17

SLOPE INTERCEPT

FENCE BY OTHERS

BED 1

AREA G

AREA G

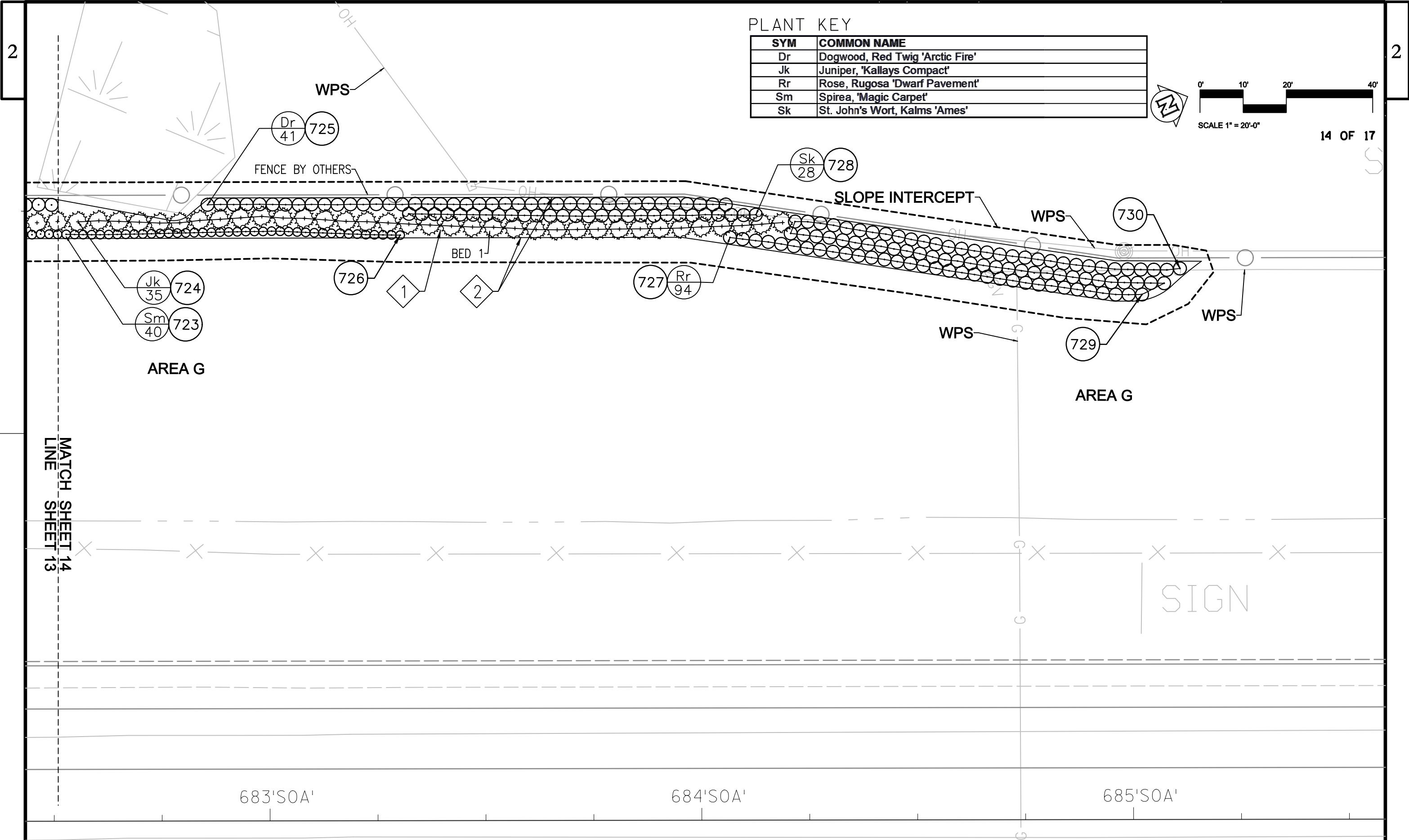
MATCH SHEET 13
LINE SHEET 12

MATCH SHEET 14
LINE SHEET 13

680'SOA'

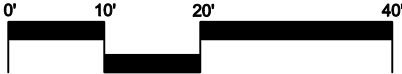
681'SOA'

682'SOA'



PLANT KEY

SYM	COMMON NAME
Dr	Dogwood, Red Twig 'Arctic Fire'
Jk	Juniper, 'Kallays Compact'
Rr	Rose, Rugosa 'Dwarf Pavement'
Sm	Spirea, 'Magic Carpet'
Sk	St. John's Wort, Kalms 'Ames'



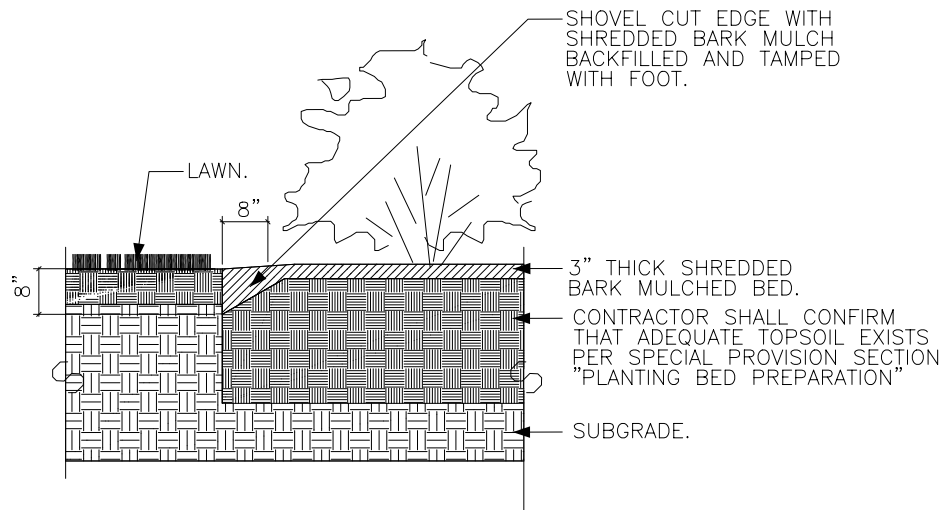
SCALE 1" = 20'-0"

14 OF 17

MATCH SHEET 14
LINE SHEET 13

PLANT DATA TABLE

Symbol	Common Name	Scientific Name	Type	Average Mature Height	Size When Planted	Root Zone Mode	Minimum Size					Brace Or Guy	Fertilizer Units Required	Rodent Protection Required	Mulch Ring Required	Plant Bed Detail
							Ball/Pot		Root Spread	Plant Hole						
							Diameter	Depth		Diameter	Depth					
	Canopy Trees															
BR	Birch, River 'Heritage' (Multistemmed)	Betula nigra 'Heritage' (Multistemmed)	1T	40-70' Ht.	8' Ht.	B&B	22"	13"	-----	46"	13"	See SPV	6	Yes	58"	-----
HA	Hackberry 'Prairie Pride'	Celtis occidentalis 'Prairie Pride'	1T	40-60' Ht.	2 1/2" Cal.	B&B	28"	17"	-----	52"	17"	See SPV	6	Yes	64"	-----
HS	Hickory, Shagbark	Carya ovata	1T	70-80'Ht.	1.75" Cal.	B&B	22"	13"	-----	46"	13"	See SPV	4	Yes	58"	-----
MR	Maple, Red 'Northwood'	Acer rubrum 'Northwood'	1T	40-60' Ht.	2 1/2" Cal.	B&B	28"	17"	-----	52"	17"	See SPV	6	Yes	64"	-----
OB	Oak, Bur	Quercus macrocarpa	1T	60-80' Ht.	2" Cal.	B&B	24"	14"	-----	48"	14"	See SPV	4	Yes	60"	-----
OS	Oak, Swamp White	Quercus bicolor	1T	50-60' Ht.	2" Cal.	B&B	24"	14"	-----	48"	14"	See SPV	4	Yes	60"	-----
	Deciduous Ornamental Trees															
CR1	Crabapple, Redbud (Shrub Form Tree)	Malus x zumi calocarpa (Shrub Form Tree)	4T	15-20' Ht.	8' Ht.	B&B	22"	16"	-----	46"	16"	See SPV	6	Yes	58"	-----
DC	Dogwood, Corneliancherry 'Golden Glory'	Cornus mas 'Golden Glory'	3T	20-25' Ht.	1.75" Cal.	B&B	22"	13"	-----	46"	13"	See SPV	4	Yes	58"	-----
DC1	Dogwood, Corneliancherry 'Golden Glory' (Shrub Form Tree)	Cornus mas 'Golden Glory' (Shrub Form Tree)	3T	20-25' Ht.	5' Ht.	B&B	18"	12"	-----	42"	12"	See SPV	4	Yes	50"	-----
HC	Hawthorn, Cockspur (Thornless)	Crataegus crus-galli var. inermis	4T	20-30' Ht.	2" Cal.	B&B	24"	14"	-----	48"	14"	See SPV	4	Yes	60"	-----
HC1	Hawthorn, Cockspur (Thornless) (Shrub Form Tree)	Crataegus crus-galli var. inermis (Shrub Form Tree)	4T	20-30' Ht.	6' Ht.	B&B	18"	12"	-----	42"	12"	See SPV	4	Yes	54"	-----
HH	Hophornbeam	Carpinus caroliniana	3T	20-25' Ht.	2" Cal.	B&B	24"	14"	-----	48"	14"	See SPV	4	Yes	60"	-----
SP9	Serviceberry, 'Princess Diana' (Shrub Form Tree), 9' Ht.	Amelanchier x grandiflora 'Princess Diana' (Shrub Form Tree)	3T	20-25' Ht.	9' Ht.	B&B	24"	14"	-----	48"	14"	See SPV	6	Yes	60"	-----
VB	Viburnum, Blackhaw (Shrub Form Tree)	Viburnum prunifolium (Shrub Form Tree)	4T	12-15' Ht.	6' Ht.	B&B	18"	12"	-----	42"	12"	See SPV	4	Yes	54"	-----
	Evergreens															
ER4	Eastern Redcedar, Hill Dundee, 4' Ht.	Juniperus virginiana 'Hillii'	6E	15-20'Ht.	4' Ht.	B&B	16"	10"	-----	40"	10"	See SPV	4	No	52"	-----
ER6	Eastern Redcedar, Hill Dundee, 6' Ht.	Juniperus virginiana 'Hillii'	6E	15-20'Ht.	6' Ht.	B&B	22"	13"	-----	46"	13"	See SPV	4	No	58"	-----
PL	Pine, Limber	Pinus flexilis	4E	30-50' Ht.	7' Ht.	B&B	24"	14"	-----	48"	14"	See SPV	4	No	60"	-----
	Deciduous Ornamental Shrubs															
Bd	Bush Honeysuckle, Dwarf	Diervilla lonicera	2S	3-4' Ht.	12" Ht./#3	CONT	12"	8"	-----	36"	12"	No	2	No	BED	BED 1
Cb	Chokeberry, Black 'Iroquois Beauty'	Aronia melanocarpa 'Iroquois Beauty'	2S	2-3' Ht.	12" Ht./#3	CONT	12"	8"	-----	36"	12"	No	2	No	BED	BED 1
Dr	Dogwood, Red Twig 'Arctic Fire'	Cornus sericea 'Arctic Fire Farrow'	2S	3-4' Ht.	24" Ht./#3	CONT	12"	8"	-----	36"	12"	No	2	No	BED	BED 1
Rr	Rose, Rugosa 'Dwarf Pavement'	Rosa rugosa 'Dwarf Pavement'	2S	2-3' Ht.	12" Ht./#3	CONT	12"	8"	-----	36"	12"	No	2	No	BED	BED 1
Sm	Spirea, 'Magic Carpet'	Spiraea japonica 'Magic Carpet'	2S	2-3' Ht.	12" Ht./#3	CONT	12"	8"	-----	36"	12"	No	2	No	BED	BED 1
Sk	St. John's Wort, Kalm's 'Ames'	Hypericum kalmianum 'Ames'	2S	2-3' Ht.	12"Ht./#3	CONT	12"	8"	-----	36"	12"	No	2	No	BED	BED 1
St	Sumac, Staghorn Cutleaf	Rhus typhina 'Lacinata'	4S	15-20' Ht.	3' Ht. / #2	CONT	12"	8"	-----	36"	12"	No	3	No	48"	-----
Ve	Viburnum, European Cranberrybush Dwarf	Viburnum opulus 'Nanum'	2S	2-3'Ht.	12" Ht./#3	CONT	12"	8"	-----	36"	12"	No	2	No	BED	BED 1
	Evergreen Shrubs															
JK	Juniper, 'Kallays Compact'	Juniperus chinensis 'Pfitzeriana Kallay'	2S	2-3' Ht.	12" Ht./#3	CONT	12"	8"	-----	36"	12"	No	2	No	BED	BED 1



1 SHOVEL CUT EDGE & SHREDDED HARDWOOD BARK MULCH BED

DETAIL
NOT TO SCALE

PLANT QUANTITIES TABLE														
Symbol	Common Name		Scientific Name		Size When Planted	Root Zone Mode								
							Area A	Area B	Area C	Area D	Area E	Area F	Area G	Totals
	Canopy Trees													
BR	Birch, River 'Heritage' (Multistemmed)		Betula nigra 'Heritage' (Multistemmed)		8' Ht.	B&B	3							3
HA	Hackberry 'Prairie Pride'		Celtis occidentalis 'Prairie Pride'		2 1/2" Cal.	B&B	1							1
HS	Hickory, Shagbark		Carya ovata		1.75" Cal.	B&B	2							2
MR	Maple, Red 'Northwood'		Acer rubrum 'Northwood'		2 1/2" Cal.	B&B	16		3					19
OB	Oak, Bur		Quercus macrocarpa		2" Cal.	B&B	1		1					2
OS	Oak, Swamp White		Quercus bicolor		2" Cal.	B&B	5							5
	Deciduous Ornamental Trees													
CR1	Crabapple, Redbud (Shrub Form Tree)		Malus x zumi calocarpa (Shrub Form Tree)		8' Ht.	B&B					11	3		14
DC	Dogwood, Corneliancherry 'Golden Glory'		Cornus mas 'Golden Glory'		1.75" Cal.	B&B					2	1		3
DC1	Dogwood, Corneliancherry 'Golden Glory' (Shrub Form Tree)		Cornus mas 'Golden Glory' (Shrub Form Tree)		5' Ht.	B&B					1	12		13
HC	Hawthorn, Cockspur (Thornless)		Crataegus crus-galli var. inermis		2" Cal.	B&B	4	4	2			3		13
HC1	Hawthorn, Cockspur (Thornless) (Shrub Form Tree)		Crataegus crus-galli var. inermis (Shrub Form Tree)		6' Ht.	B&B			1			3		4
HH	Hophornbeam		Carpinus caroliniana		2" Cal.	B&B					3	3		6
SP9	Serviceberry, 'Princess Diana' (Shrub Form Tree), 9' Ht.		Amelanchier x grandiflora 'Princess Diana' (Shrub Form Tree)		9' Ht.	B&B			3	3				6
VB	Viburnum, Blackhaw (Shrub Form Tree)		Viburnum prunifolium (Shrub Form Tree)		6' Ht.	B&B	12	17				18		47
	Evergreens													
ER4	Eastern Redcedar, Hill Dundee, 4' Ht.		Juniperus virginiana 'Hillii'		4' Ht.	B&B						22		22
ER6	Eastern Redcedar, Hill Dundee, 6' Ht.		Juniperus virginiana 'Hillii'		6' Ht.	B&B						19		19
PL	Pine, Limber		Pinus flexilis		7' Ht.	B&B		17						17
	Deciduous Ornamental Shrubs													
Bd	Bush Honeysuckle, Dwarf		Diervilla lonicera		12" Ht./#3	CONT							45	45
Cb	Chokeberry, Black 'Iroquois Beauty'		Aronia melanocarpa 'Iroquois Beauty'		12" Ht./#3	CONT							42	42
Dr	Dogwood, Red Twig 'Arctic Fire'		Cornus sericea 'Arctic Fire Farrow'		24" Ht./#3	CONT							95	95
Rr	Rose, Rugosa 'Dwarf Pavement'		Rosa rugosa 'Dwarf Pavement'		12" Ht./#3	CONT							186	186
Sm	Spiraea, 'Magic Carpet'		Spiraea japonica 'Magic Carpet'		12" Ht./#3	CONT							142	142
Sk	St. John's Wort, Kalms 'Ames'		Hypericum kalmianum 'Ames'		12"Ht./#3	CONT							116	116
St	Sumac, Staghorn Cutleaf		Rhus typhina 'Lacinata'		3' Ht. / #2	CONT	7							7
Ve	Viburnum, European Cranberrybush Dwarf		Viburnum opulus 'Nanum'		12" Ht./#3	CONT							55	55
	Evergreen Shrubs													
Jk	Juniper, 'Kallays Compact'		Juniperus chinensis 'Pfitzeriana Kallay'		12" Ht./#3	CONT							168	168

AREA A		
POINT	STATION	OFFSET
100	199'BUT'+48.07	111.72
101	201'BUT'+15.90	97.20
102	201'BUT'+51.88	102.77
103	201'BUT'+67.92	88.89
104	201'BUT'+99.09	88.99
105	202'BUT'+32.31	95.66
106	202'BUT'+64.59	102.30
107	203'BUT'+18.03	105.45
108	203'BUT'+81.53	103.85
109	204'BUT'+34.15	88.83
110	205'BUT'+35.28	105.50
111	206'BUT'+92.18	85.20
112	207'BUT'+27.15	113.25
113	207'BUT'+17.74	171.31
114	214'BUT'+95.52	77.19
115	215'BUT'+19.81	132.02
116	215'BUT'+53.84	186.98
117	216'BUT'+02.35	77.53
118	216'BUT'+43.23	96.30
119	216'BUT'+37.39	177.90
120	216'BUT'+85.59	104.22
121	216'BUT'+97.92	177.95
122	217'BUT'+32.76	158.18
123	217'BUT'+42.31	233.19

AREA B		
POINT	STATION	OFFSET
200	77'ALA'+29.13	63.55
201	79'ALA'+16.43	95.62
202	79'ALA'+46.10	108.23
203	79'ALA'+80.58	101.76
204	80'ALA'+41.32	110.36
205	80'ALA'+81.62	118.72
206	81'ALA'+81.62	112.61
207	81'ALA'+97.44	121.35
208	82'ALA'+74.88	107.73
209	83'ALA'+05.76	120.96
210	83'ALA'+58.60	96.58
211	83'ALA'+77.86	102.31
212	83'ALA'+83.09	121.41
213	84'ALA'+42.34	92.34
214	84'ALA'+70.66	81.52

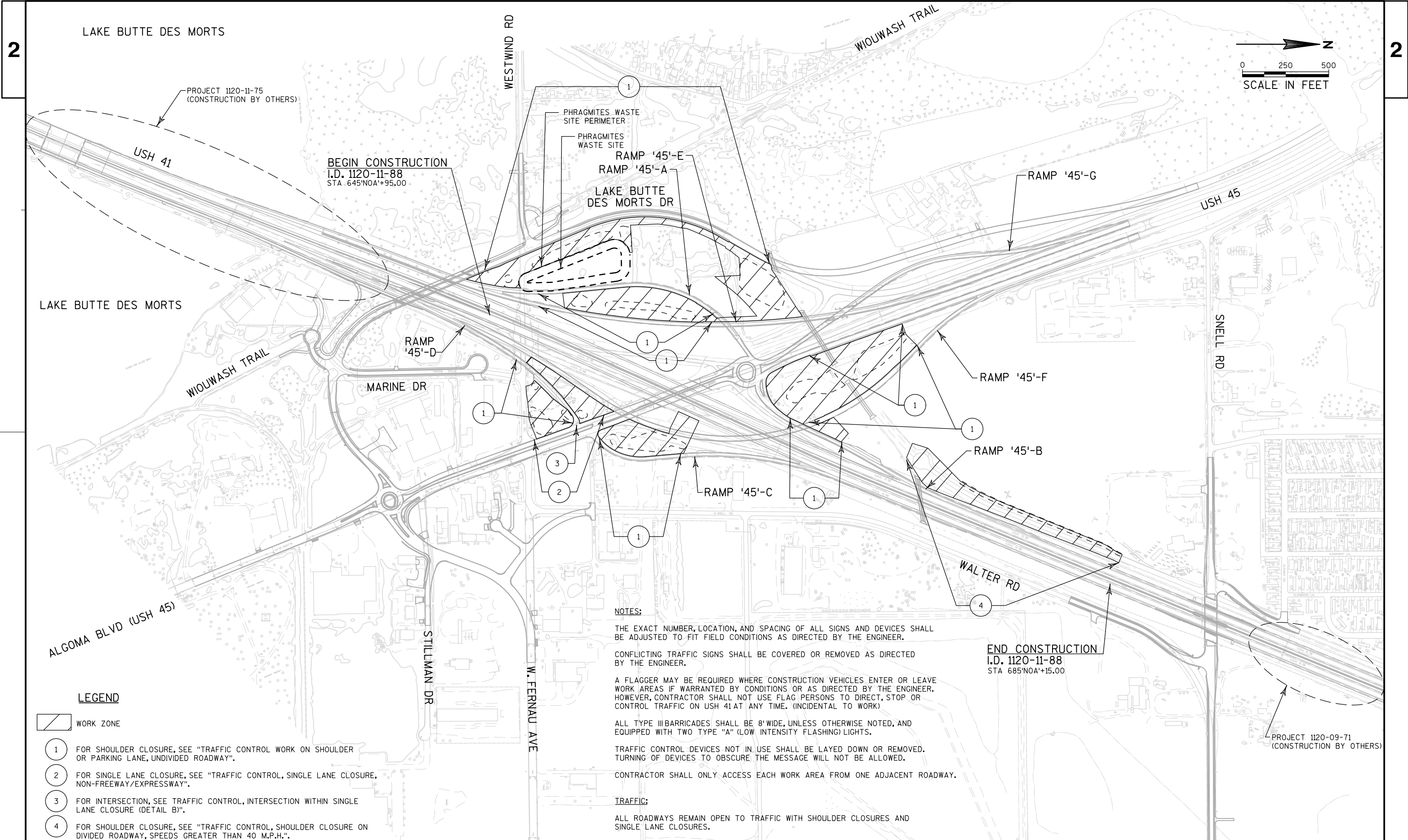
AREA C		
POINT	STATION	OFFSET
300	70'ALD'+30.79	66.57
301	71'ALD'+57.36	167.63
302	72'ALD'+22.67	162.29
303	72'ALD'+53.79	201.41
304	72'ALD'+65.15	43.89
305	72'ALD'+91.34	168.85
306	73'ALD'+02.89	37.26

AREA D		
POINT	STATION	OFFSET
400	73'ALD'+23.91	-29.36
401	73'ALD'+49.31	-43.84

AREA E		
POINT	STATION	OFFSET
500	54'ALC'+43.19	-61.41
501	55'ALC'+26.35	-64.86
502	55'ALC'+81.26	-85.56
503	56'ALC'+38.85	-61.60
504	56'ALC'+97.10	-111.18
505	57'ALC'+28.81	-55.61
506	57'ALC'+50.40	-112.24
507	57'ALC'+91.82	-43.05
508	58'ALC'+45.37	-70.62
509	59'ALC'+10.25	-46.91

AREA F		
POINT	STATION	OFFSET
600	388'ALN'+65.19	198.25
601	388'ALN'+83.02	232.81
602	388'ALN'+95.49	238.44
603	389'ALN'+24.39	230.32
604	389'ALN'+39.34	230.44
605	389'ALN'+41.23	217.44
606	389'ALN'+55.62	161.79
607	389'ALN'+71.16	210.57
608	389'ALN'+70.36	225.53
609	389'ALN'+99.27	226.31
610	390'ALN'+05.22	176.83
611	390'ALN'+15.04	226.91
612	390'ALN'+43.39	212.80
613	390'ALN'+51.74	233.97
614	390'ALN'+61.24	183.37
615	390'ALN'+77.05	242.03
616	390'ALN'+70.33	233.67
617	390'ALN'+73.00	255.02
618	390'ALN'+84.75	199.91
619	391'ALN'+28.68	258.88
620	391'ALN'+35.63	235.87
621	391'ALN'+50.59	256.57
622	391'ALN'+46.82	165.12
623	391'ALN'+84.55	251.12
624	392'ALN'+58.02	237.08
625	392'ALN'+70.57	238.27
626	393'ALN'+00.39	209.64
627	393'ALN'+10.28	178.03
628	393'ALN'+42.78	140.52
629	393'ALN'+33.71	228.95
630	393'ALN'+66.33	166.88
631	393'ALN'+47.57	227.13
632	393'ALN'+79.93	203.29
633	393'ALN'+94.50	139.73
634	394'ALN'+04.96	189.72
635	394'ALN'+31.16	201.12
636	394'ALN'+66.15	171.17
637	394'ALN'+63.27	117.44
638	395'ALN'+13.30	168.49
639	395'ALN'+39.86	119.68
640	396'ALN'+04.32	113.51
641	390'ALN'+98.84	258.50

AREA G		
POINT	STATION	OFFSET
700	674'SOA'+89.71	-165.38
701	674'SOA'+94.94	-159.38
702	675'SOA'+33.93	-152.94
703	675'SOA'+36.93	-152.51
704	675'SOA'+52.87	-155.81
705	676'SOA'+41.42	-144.00
706	676'SOA'+50.20	-140.94
707	676'SOA'+52.12	-146.60
708	676'SOA'+53.48	-144.20
709	676'SOA'+55.00	-140.61
710	676'SOA'+93.07	-138.24
711	677'SOA'+51.98	-143.26
712	677'SOA'+72.93	-135.73
713	678'SOA'+52.86	-135.74
714	678'SOA'+84.32	-142.90
715	679'SOA'+47.55	-136.70
716	679'SOA'+54.04	-140.84
717	679'SOA'+66.72	-142.81
718	679'SOA'+79.62	-136.13
719	680'SOA'+86.83	-135.86
720	680'SOA'+88.91	-142.93
721	681'SOA'+57.75	-140.23
722	682'SOA'+15.47	-135.91
723	682'SOA'+52.96	-135.94
724	682'SOA'+55.75	-138.84
725	682'SOA'+85.73	-142.74
726	683'SOA'+30.33	-135.64
727	684'SOA'+06.72	-134.97
728	684'SOA'+12.71	-140.24
729	684'SOA'+02.15	-121.62
730	685'SOA'+10.93	-127.63
731	676'SOA'+22.42	-142.50
732	679'SOA'+18.10	-135.57



LEGEND



WORK ZONE

- 1
- 2
- 3
- 4

FOR SHOULDER CLOSURE, SEE "TRAFFIC CONTROL WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY".

FOR SINGLE LANE CLOSURE, SEE "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY".

FOR INTERSECTION, SEE TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE (DETAIL B)".

FOR SHOULDER CLOSURE, SEE "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H.".

NOTES:

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

CONFLICTING TRAFFIC SIGNS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER. HOWEVER, CONTRACTOR SHALL NOT USE FLAG PERSONS TO DIRECT, STOP OR CONTROL TRAFFIC ON USH 41 AT ANY TIME. (INCIDENTAL TO WORK)

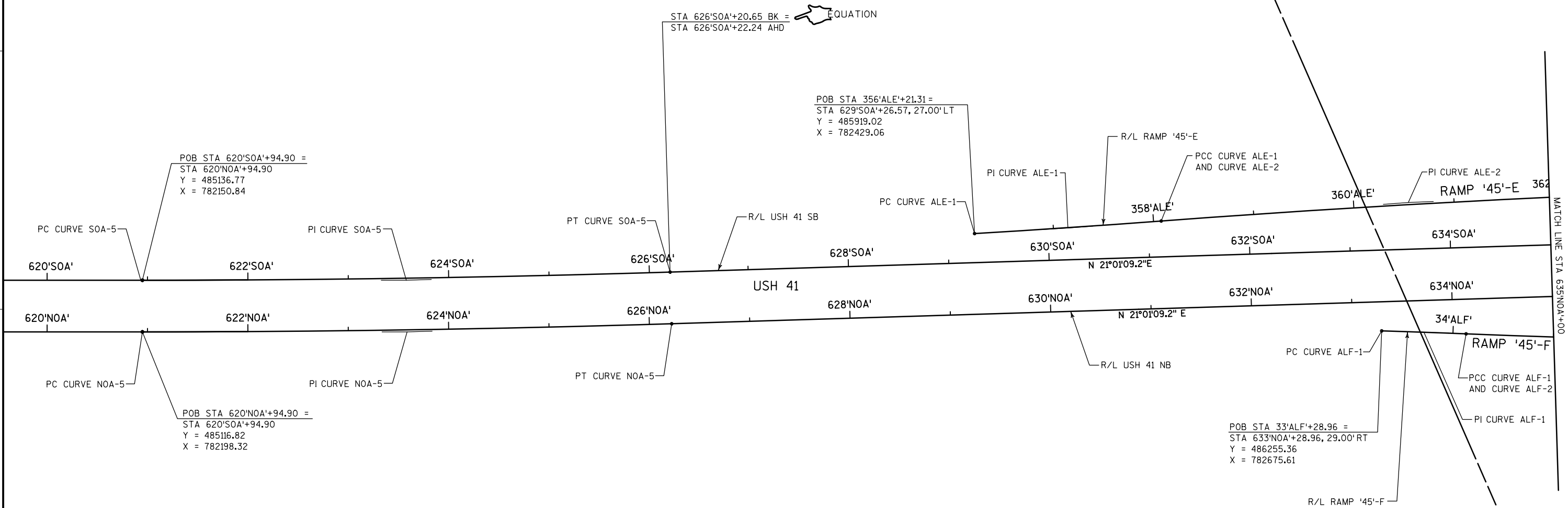
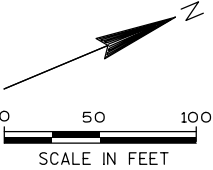
ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED. TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

CONTRACTOR SHALL ONLY ACCESS EACH WORK AREA FROM ONE ADJACENT ROADWAY.

TRAFFIC:

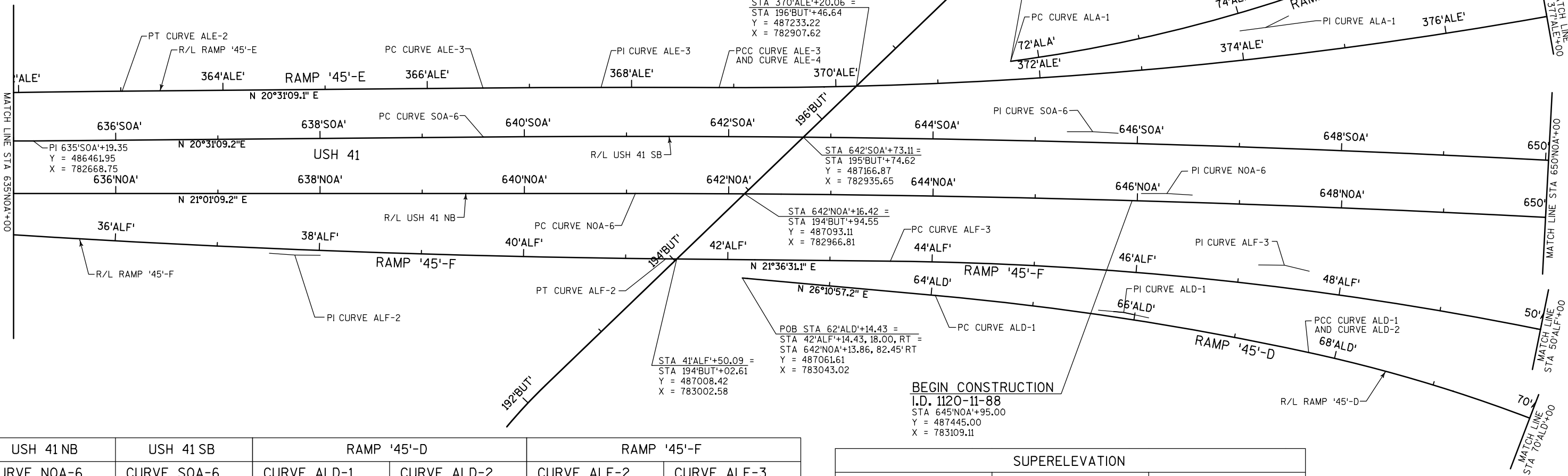
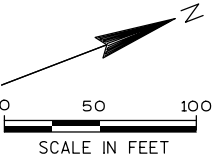
ALL ROADWAYS REMAIN OPEN TO TRAFFIC WITH SHOULDER CLOSURES AND SINGLE LANE CLOSURES.



USH 41 NB	USH 41 SB	RAMP '45'-E		RAMP '45'-F	
CURVE NOA-5 PI= STA 623'NOA'+58.59 Y = 485359.92 X = 782300.47 DELTA = 1°46'19.0" T = 263.69 L = 527.34 R = 17051.50 PC = STA 620'NOA'+94.90 Y = 485116.82 X = 782198.32 PT = STA 626'NOA'+22.24 Y = 485606.07 X = 782395.05 BK = N 22°47'28.2" E AH = N 21°01'09.2" E SE = N/A	CURVE SOA-5 PI= STA 623'SOA'+57.80 Y = 485379.14 X = 782252.68 DELTA = 1°46'19.0" T = 262.89 L = 525.75 R = 17000.00 PC = STA 620'SOA'+94.90 Y = 485136.77 X = 782150.84 PT = STA 626'SOA'+22.24 Y = 485624.54 X = 782346.98 BK = N 22°47'28.2" E AH = N 21°01'09.2" E SE = N/A	CURVE ALE-1 PI= STA 357'ALE'+14.47 Y = 486006.90 X = 782459.99 DELTA = 0°53'22.7" T = 93.16 L = 186.33 R = 12000.00 PC = STA 356'ALE'+21.31 Y = 485919.02 X = 782429.06 PCC = STA 358'ALE'+07.64 Y = 486095.25 X = 782489.55 BK = N 19°23'18.0" E AH = N 18°29'55.3" E SE = N/A	CURVE ALE-2 PI= STA 360'ALE'+54.51 Y = 486329.37 X = 782567.88 DELTA = 2°01'13.8" T = 246.88 L = 493.70 R = 14000.00 PCC = STA 358'ALE'+07.64 Y = 486095.25 X = 782489.55 PT = STA 363'ALE'+01.34 Y = 486560.59 X = 782654.42 BK = N 18°29'55.3" E AH = N 20°31'09.1" E SE = N/A	CURVE ALF-1 PI= STA 33'ALF'+71.01 Y = 486293.61 X = 782693.07 DELTA = 0°32'07.6" T = 42.05 L = 84.11 R = 9000.00 PC = STA 33'ALF'+28.96 Y = 486255.36 X = 782675.61 PCC = STA 34'ALF'+13.07 Y = 486331.70 X = 782710.90 BK = N 24°32'28.9" E AH = N 25°04'36.5" E SE = N/A	CURVE ALF-2 PI= STA 37'ALF'+76.36 Y = 486660.75 X = 782864.87 DELTA = 3°28'05.3" T = 363.29 L = 726.37 R = 12000.00 PCC = STA 34'ALF'+13.07 Y = 486331.70 X = 782710.90 PT = STA 41'ALF'+39.43 Y = 486998.51 X = 782998.66 BK = N 25°04'36.5" E AH = N 21°36'31.1" E SE = N/A

RAMP '45'-A	RAMP '45'-E		
CURVE ALA-1 PI= STA 74'ALA'+23.91 Y = 487627.65 X = 782997.62 DELTA = 19°02'52.2" T = 251.66 L = 498.67 R = 1500.00 PC = STA 71'ALA'+72.25 Y = 487382.90 X = 782939.04 PT = STA 76'ALA'+70.92 Y = 487878.11 X = 782973.11 BK = N 13°27'32.9" E AH = N 5°35'19.2" W SE = N/A	CURVE ALE-2 PI= STA 360'ALE'+54.51 Y = 486329.37 X = 782567.88 DELTA = 2°01'13.8" T = 246.88 L = 493.70 R = 14000.00 PCC = STA 358'ALE'+07.64 Y = 486095.25 X = 782489.55 PT = STA 363'ALE'+01.34 Y = 486560.59 X = 782654.42 BK = N 18°29'55.3" E AH = N 20°31'09.1" E SE = N/A	CURVE ALE-3 PI= STA 367'ALE'+70.13 Y = 486999.64 X = 782818.74 DELTA = 0°46'26.6" T = 115.54 L = 231.07 R = 17104.00 PC = STA 366'ALE'+54.59 Y = 486891.43 X = 782778.24 PCC = STA 368'ALE'+85.67 Y = 487107.29 X = 782860.70 BK = N 20°31'09.1" E AH = N 21°17'35.7" E SE = N/A	CURVE ALE-4 PI= STA 385'ALE'+64.43 Y = 488671.46 X = 783470.33 DELTA = 40°55'01.3" T = 1678.77 L = 3213.62 R = 4500.00 PCC = STA 368'ALE'+85.67 Y = 487107.29 X = 782860.70 PT = STA 400'ALE'+99.28 Y = 490252.72 X = 782906.53 BK = N 21°17'35.7" E AH = N 19°37'25.5" W SE = 3.30%

SUPERELEVATION					
CURVE ALE-4			CURVE ALF-3		
	STA	SE		STA	SE
BT	368'ALE'+75.00	2.00%	BT	43'ALF'+50.00	N.C.
FS	369'ALE'+25.00	3.30%	FS	44'ALF'+00.00	4.00%
FS	400'ALE'+50.00	3.30%	FS	51'ALF'+00.00	4.00%
ET	401'ALE'+00.00	2.00%	ET	51'ALF'+50.00	N.C.
*** LEFT LANE TRANSITION FROM 2% TO N.C. FROM STA 401'ALE'+00 TO STA 402'ALE'+50			** OUTER SHOULDER TRANSITION WITH SE STARTING AT 51'ALF'+00		

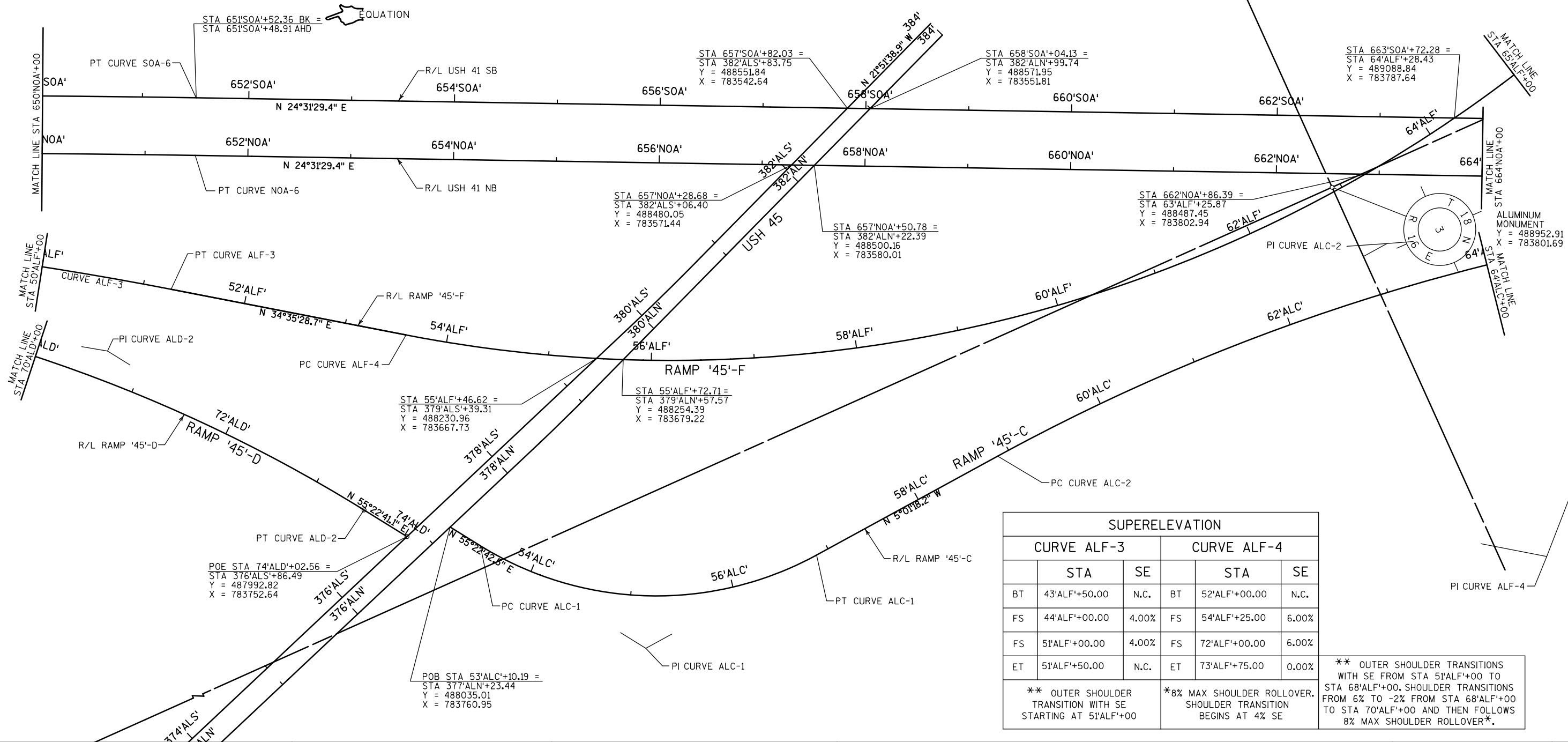
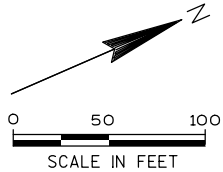


USH 41 NB	USH 41 SB	RAMP '45'-D		RAMP '45'-F	
CURVE NOA-6 PI= STA 646'NOA'+28.91 Y = 487479.21 X = 783114.81 DELTA = 3°30'20.2" T = 520.23 L = 1040.14 R = 17000.00 PC = STA 641'NOA'+08.68 Y = 486993.60 X = 782928.21 PT = STA 651'NOA'+48.82 Y = 487952.51 X = 783330.75 BK = N 21°01'09.2" E AH = N 24°31'29.4" E SE = N/A	CURVE SOA-6 PI= STA 645'SOA'+56.40 Y = 487433.20 X = 783032.26 DELTA = 4°00'20.2" T = 596.45 L = 1192.41 R = 17056.00 PC = STA 639'SOA'+59.95 Y = 486874.60 X = 782823.19 PT = STA 651'SOA'+52.36 Y = 487975.84 X = 783279.84 BK = N 20°31'09.2" E AH = N 24°31'29.4" E SE = N/A	CURVE ALD-1 PI= STA 65'ALD'+89.30 Y = 487398.02 X = 783208.42 DELTA = 7°03'59.4" T = 185.24 L = 370.00 R = 3000.00 PC = STA 64'ALD'+04.07 Y = 487231.80 X = 783126.69 PCC = STA 67'ALD'+74.07 Y = 487552.94 X = 783309.98 PT = STA 73'ALD'+53.41 Y = 487964.90 X = 783712.19 BK = N 26°10'57.2" E AH = N 33°14'56.5" E SE = 3.40%	CURVE ALD-2 PI= STA 70'ALD'+67.39 Y = 487798.24 X = 783470.81 DELTA = 22°07'44.5" T = 293.32 L = 579.34 R = 1500.00 PC = STA 67'ALD'+74.07 Y = 487552.94 X = 783309.98 PT = STA 73'ALD'+53.41 Y = 487964.90 X = 783712.19 BK = N 33°14'56.5" E AH = N 55°22'41.1" E SE = 3.95%	CURVE ALF-2 PI= STA 37'ALF'+76.36 Y = 486660.75 X = 782864.87 DELTA = 3°28'05.3" T = 363.29 L = 726.37 R = 12000.00 PCC = STA 34'ALF'+13.07 Y = 486331.70 X = 782710.90 PT = STA 41'ALF'+39.43 Y = 486998.51 X = 782998.66 BK = N 25°04'36.5" E AH = N 21°36'31.1" E SE = N/A	CURVE ALF-3 PI= STA 47'ALF'+44.84 Y = 487561.37 X = 783221.61 DELTA = 12°58'57.6" T = 385.72 L = 768.14 R = 3390.00 PC = STA 43'ALF'+59.12 Y = 487202.76 X = 783079.56 PT = STA 51'ALF'+27.26 Y = 487878.91 X = 783440.59 BK = N 21°36'31.1" E AH = N 34°35'28.7" E SE = 4.00%

SUPERELEVATION								
CURVE ALA-1			CURVE ALD-1			CURVE ALD-2		
	STA	SE		STA	SE		STA	SE
BT	71'ALA'+75.00	3.30%	BT	63'ALD'+75.00	N.C.	BT	67'ALD'+50.00	3.40%
FS	72'ALA'+25.00	5.05%	FS	64'ALD'+25.00	3.40%	FS	68'ALD'+00.00	3.95%
FS	76'ALA'+25.00	5.05%	FS	67'ALD'+50.00	3.40%	FS	73'ALD'+25.00	3.95%
ET	77'ALA'+00.00	N.C.	ET	67'ALD'+50.00	3.40%	ET	73'ALD'+75.00	N.C.
*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE								

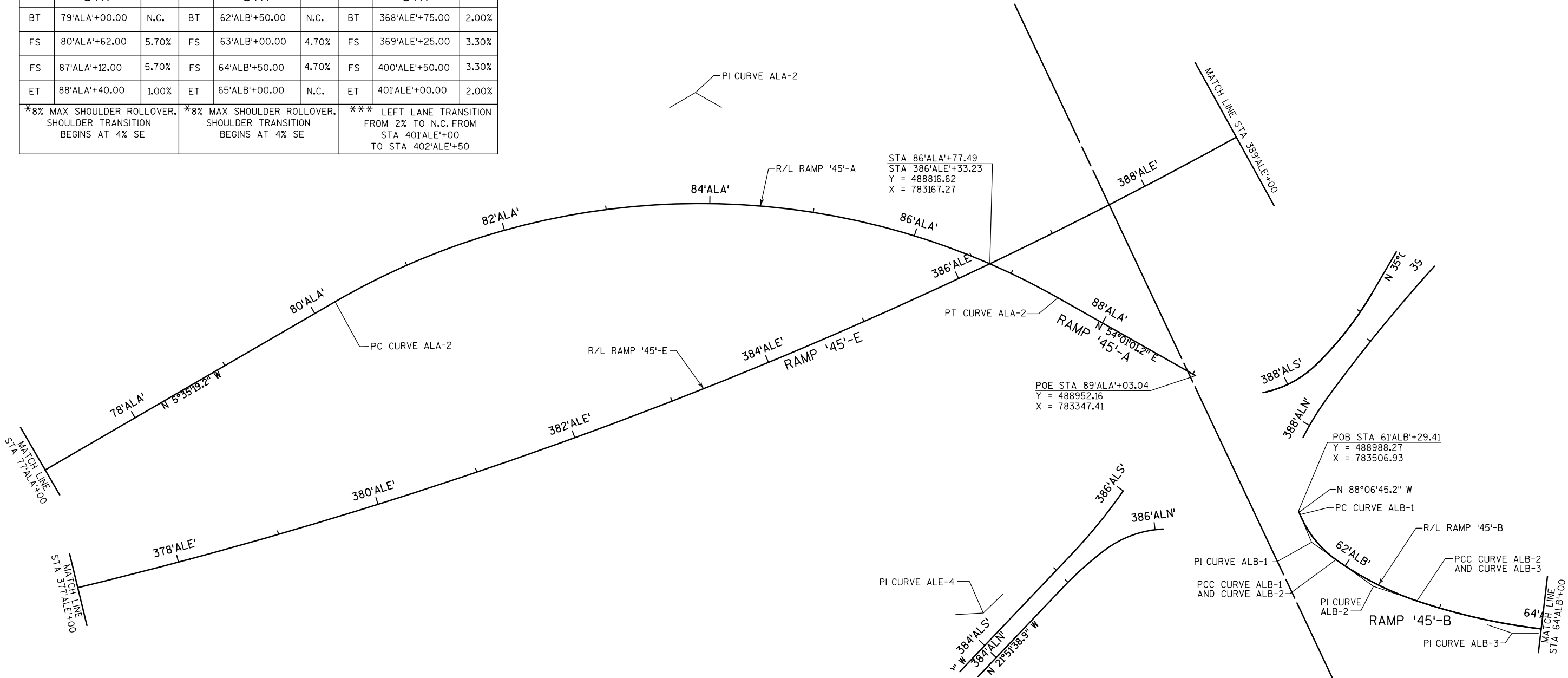
USH 41 NB	USH 41 SB	RAMP '45'-C		RAMP '45'-D	RAMP '45'-F	
CURVE NOA-6 PI= STA 646'NOA'+28.91 Y = 487479.21 X = 783114.81 DELTA = 3°30'20.2" T = 520.23 L = 1040.14 R = 17000.00 PC = STA 641'NOA'+08.68 Y = 486993.60 X = 782928.21 PT = STA 651'NOA'+48.82 Y = 487952.51 X = 783330.75 BK = N 21°01'09.2" E AH = N 24°31'29.4" E SE = N/A	CURVE SOA-6 PI= STA 645'SOA'+56.40 Y = 487433.20 X = 783032.26 DELTA = 4°00'20.2" T = 596.45 L = 1192.41 R = 17056.00 PC = STA 639'SOA'+59.95 Y = 486874.60 X = 782823.19 PT = STA 651'SOA'+52.36 Y = 487975.84 X = 783279.84 BK = N 20°31'09.2" E AH = N 24°31'29.4" E SE = N/A	CURVE ALC-1 PI= STA 55'ALC'+33.93 Y = 488162.13 X = 783945.06 DELTA = 60°24'00.7" T = 189.16 L = 342.61 R = 325.00 PC = STA 53'ALC'+44.77 Y = 488054.66 X = 783789.40 PT = STA 56'ALC'+87.38 Y = 488350.56 X = 783928.51 BK = N 55°22'42.5" E AH = N 5°01'18.2" W SE = 5.80%	CURVE ALC-2 PI= STA 63'ALC'+19.23 Y = 488979.98 X = 783873.20 DELTA = 24°09'39.5" T = 431.26 L = 849.70 R = 2015.00 PC = STA 58'ALC'+87.97 Y = 488550.38 X = 783910.95 PT = STA 67'ALC'+37.67 Y = 489387.41 X = 784014.59 BK = N 5°01'18.2" W AH = N 19°08'21.3" E SE = 5.40%	CURVE ALD-2 PI= STA 70'ALD'+67.39 Y = 487798.24 X = 783470.81 DELTA = 22°07'44.5" T = 293.32 L = 579.34 R = 1500.00 PCC = STA 67'ALD'+74.07 Y = 487552.94 X = 783309.98 PT = STA 73'ALD'+53.41 Y = 487964.90 X = 783712.19 BK = N 33°14'56.5" E AH = N 55°22'41.1" E SE = 3.95%	CURVE ALF-3 PI= STA 47'ALF'+44.84 Y = 487561.37 X = 783221.61 DELTA = 12°58'57.6" T = 385.72 L = 768.14 R = 3390.00 PC = STA 43'ALF'+59.12 Y = 487202.76 X = 783079.56 PT = STA 51'ALF'+27.26 Y = 487878.91 X = 783440.59 BK = N 21°36'31.1" E AH = N 34°35'28.7" E SE = 4.00%	CURVE ALF-4 PI= STA 64'ALF'+89.67 Y = 489000.47 X = 784214.06 DELTA = 79°50'45.9" T = 1129.70 L = 1881.33 R = 1350.00 PC = STA 53'ALF'+59.97 Y = 488070.48 X = 783572.71 PT = STA 72'ALF'+41.30 Y = 489795.73 X = 783411.70 BK = N 34°35'28.7" E AH = N 45°15'17.1" W SE = 6.00%

SUPERELEVATION								
CURVE ALC-1			CURVE ALC-2			CURVE ALD-2		
	STA	SE		STA	SE		STA	SE
BT	52'ALC'+50.00	N.C.	BT	58'ALC'+75.00	N.C.	BT	67'ALD'+50.00	3.40%
FS	54'ALC'+00.00	5.80%	FS	59'ALD'+50.00	5.40%	FS	68'ALD'+00.00	3.95%
FS	56'ALC'+50.00	5.80%	FS	67'ALC'+00.00	5.40%	FS	73'ALD'+25.00	3.95%
ET	58'ALC'+00.00	N.C.	ET	668'NOA'+00.00	N.C.	ET	73'ALD'+75.00	N.C.
*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE			*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE					

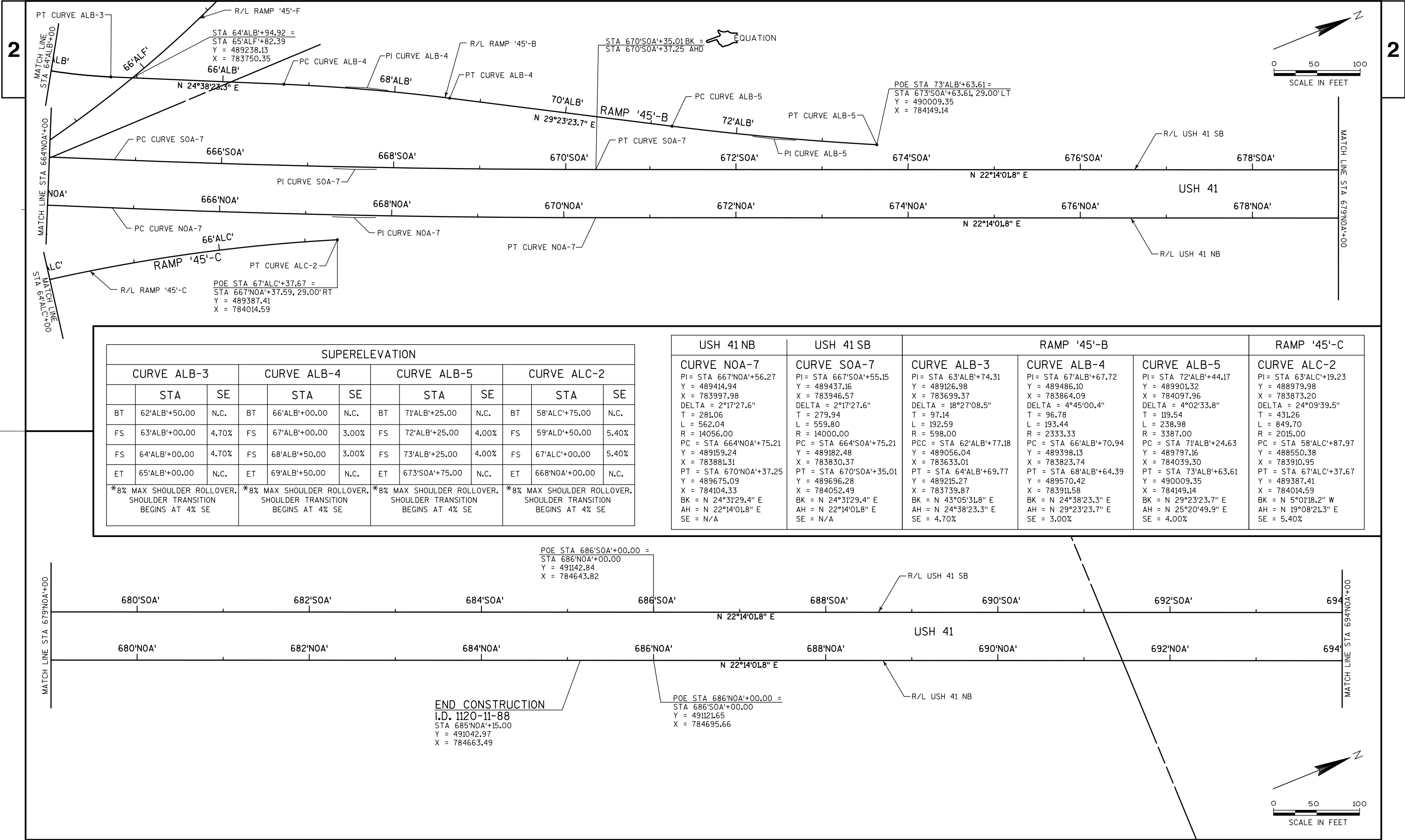


SUPERELEVATION					
CURVE ALF-3			CURVE ALF-4		
	STA	SE		STA	SE
BT	43'ALF'+50.00	N.C.	BT	52'ALF'+00.00	N.C.
FS	44'ALF'+00.00	4.00%	FS	54'ALF'+25.00	6.00%
FS	51'ALF'+00.00	4.00%	FS	72'ALF'+00.00	6.00%
ET	51'ALF'+50.00	N.C.	ET	73'ALF'+75.00	0.00%
** OUTER SHOULDER TRANSITION WITH SE STARTING AT 51'ALF'+00		*8% MAX SHOULDER ROLLOVER, SHOULDER TRANSITION BEGINS AT 4% SE		** OUTER SHOULDER TRANSITIONS WITH SE FROM STA 51'ALF'+00 TO STA 68'ALF'+00. SHOULDER TRANSITIONS FROM 6% TO -2% FROM STA 68'ALF'+00 TO STA 70'ALF'+00 AND THEN FOLLOWS 8% MAX SHOULDER ROLLOVER*.	

SUPERELEVATION								
CURVE ALA-2			CURVE ALB-3			CURVE ALE-4		
	STA	SE		STA	SE		STA	SE
BT	79'ALA'+00.00	N.C.	BT	62'ALB'+50.00	N.C.	BT	368'ALE'+75.00	2.00%
FS	80'ALA'+62.00	5.70%	FS	63'ALB'+00.00	4.70%	FS	369'ALE'+25.00	3.30%
FS	87'ALA'+12.00	5.70%	FS	64'ALB'+50.00	4.70%	FS	400'ALE'+50.00	3.30%
ET	88'ALA'+40.00	1.00%	ET	65'ALB'+00.00	N.C.	ET	401'ALE'+00.00	2.00%
*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE			*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE			*** LEFT LANE TRANSITION FROM 2% TO N.C. FROM STA 401'ALE'+00 TO STA 402'ALE'+50		



RAMP '45'-B			RAMP '45'-A	RAMP '45'-E
CURVE ALB-1 PI= STA 61'ALB'+62.06 Y = 488987.20 X = 783539.57 DELTA = 31°55'42.5" T = 28.89 L = 56.28 R = 101.00 PC = STA 61'ALB'+33.17 Y = 488988.15 X = 783510.69 PCC = STA 61'ALB'+89.45 Y = 489001.66 X = 783564.58 BK = N 88°06'45.2" W AH = N 59°57'32.3" E SE = N/A	CURVE ALB-2 PI= STA 62'ALB'+33.63 Y = 489023.78 X = 783602.83 DELTA = 16°52'00.4" T = 44.18 L = 87.73 R = 298.00 PCC = STA 61'ALB'+89.45 Y = 489001.66 X = 783564.58 PCC = STA 62'ALB'+77.18 Y = 489056.04 X = 783633.01 BK = N 59°57'32.3" E AH = N 43°05'31.8" E SE = N/A	CURVE ALB-3 PI= STA 63'ALB'+74.31 Y = 489126.98 X = 783699.37 DELTA = 18°27'08.5" T = 97.14 L = 192.59 R = 598.00 PCC = STA 62'ALB'+77.18 Y = 489056.04 X = 783633.01 PT = STA 64'ALB'+69.77 Y = 489215.27 X = 783739.87 BK = N 43°05'31.8" E AH = N 24°38'23.3" E SE = 4.70%	CURVE ALA-2 PI= STA 84'ALA'+23.56 Y = 488627.17 X = 782899.81 DELTA = 59°36'20.5" T = 400.94 L = 728.22 R = 700.00 PC = STA 80'ALA'+22.62 Y = 488228.13 X = 782938.86 PT = STA 87'ALA'+50.84 Y = 488862.74 X = 783224.25 BK = N 5°35'19.2" W AH = N 54°01'01.2" E SE = 5.70%	CURVE ALE-4 PI= STA 385'ALE'+64.43 Y = 488671.46 X = 783470.33 DELTA = 40°55'01.3" T = 1678.77 L = 3213.62 R = 4500.00 PCC = STA 368'ALE'+85.67 Y = 487107.29 X = 782860.70 PT = STA 400'ALE'+99.28 Y = 490252.72 X = 782906.53 BK = N 21°17'35.7" E AH = N 19°37'25.5" W SE = 3.30%

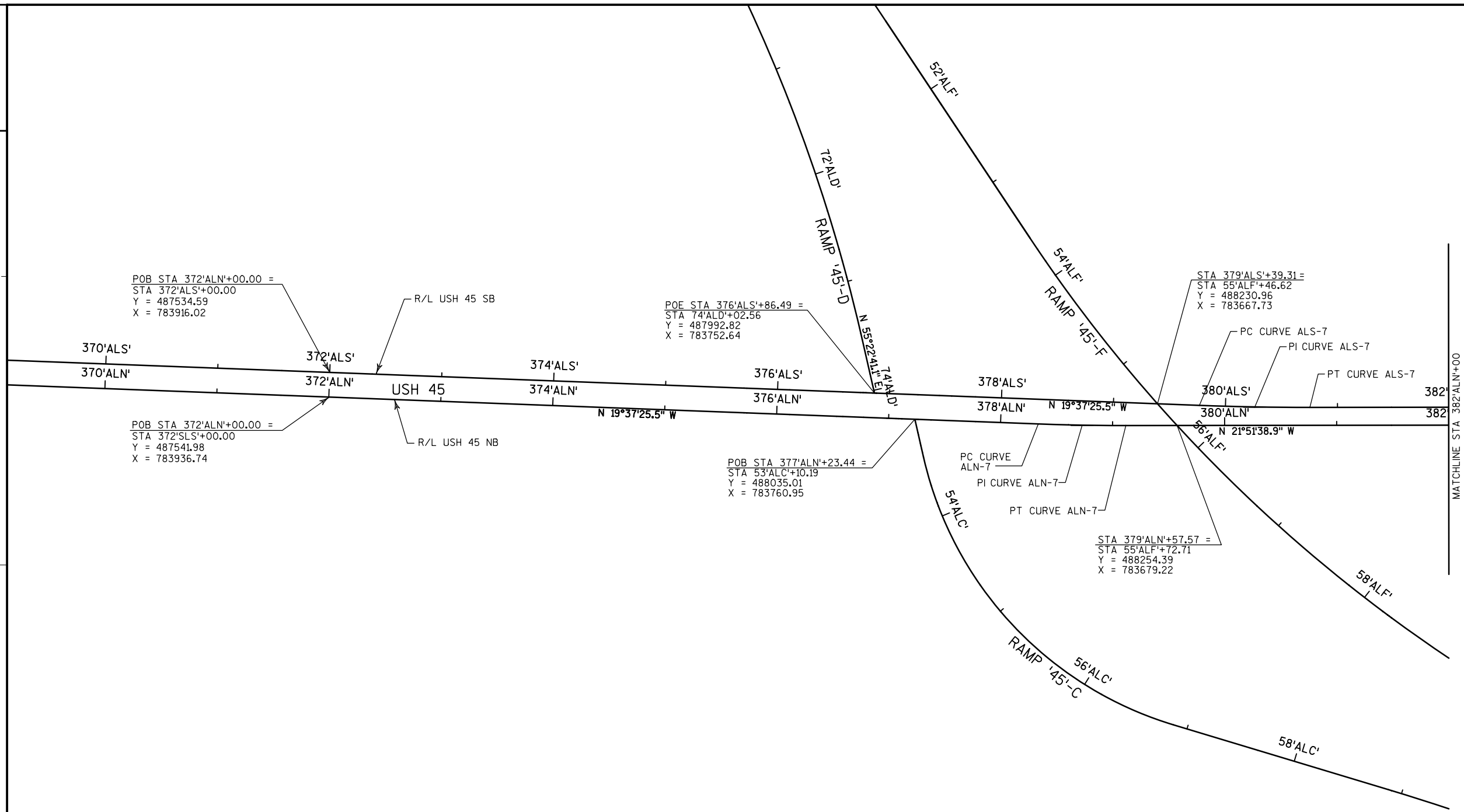
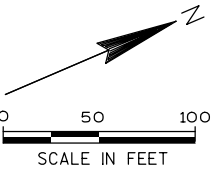


SUPERELEVATION											
CURVE ALB-3			CURVE ALB-4			CURVE ALB-5			CURVE ALC-2		
	STA	SE		STA	SE		STA	SE		STA	SE
BT	62'ALB'+50.00	N.C.	BT	66'ALB'+00.00	N.C.	BT	71'ALB'+25.00	N.C.	BT	58'ALC'+75.00	N.C.
FS	63'ALB'+00.00	4.70%	FS	67'ALB'+00.00	3.00%	FS	72'ALB'+25.00	4.00%	FS	59'ALD'+50.00	5.40%
FS	64'ALB'+00.00	4.70%	FS	68'ALB'+50.00	3.00%	FS	73'ALB'+25.00	4.00%	FS	67'ALC'+00.00	5.40%
ET	65'ALB'+00.00	N.C.	ET	69'ALB'+50.00	N.C.	ET	673'SOA'+75.00	N.C.	ET	668'NOA'+00.00	N.C.
*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE			*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE			*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE			*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE		

USH 41 NB		USH 41 SB		RAMP '45'-B			RAMP '45'-C
CURVE NOA-7		CURVE SOA-7		CURVE ALB-3	CURVE ALB-4	CURVE ALB-5	CURVE ALC-2
PI = STA 667'NOA'+56.27		PI = STA 667'SOA'+55.15		PI = STA 63'ALB'+74.31	PI = STA 67'ALB'+67.72	PI = STA 72'ALB'+44.17	PI = STA 63'ALC'+19.23
Y = 489414.94		Y = 489437.16		Y = 489126.98	Y = 489486.10	Y = 489901.32	Y = 488979.98
X = 783997.98		X = 783946.57		X = 783699.37	X = 783864.09	X = 784097.96	X = 783873.20
DELTA = 2°17'27.6"		DELTA = 2°17'27.6"		DELTA = 18°27'08.5"	DELTA = 4°45'00.4"	DELTA = 4°02'33.8"	DELTA = 24°09'39.5"
T = 281.06		T = 279.94		T = 97.14	T = 96.78	T = 119.54	T = 431.26
L = 562.04		L = 559.80		L = 192.59	L = 193.44	L = 238.98	L = 849.70
R = 14056.00		R = 14000.00		R = 598.00	R = 2333.33	R = 3387.00	R = 2015.00
PC = STA 664'NOA'+75.21		PC = STA 664'SOA'+75.21		PCC = STA 62'ALB'+77.18	PC = STA 66'ALB'+70.94	PC = STA 71'ALB'+24.63	PC = STA 58'ALC'+87.97
Y = 489159.24		Y = 489182.48		Y = 489056.04	Y = 489398.13	Y = 489797.16	Y = 488550.38
X = 783881.31		X = 783830.37		X = 783633.01	X = 783823.74	X = 784039.30	X = 783910.95
PT = STA 670'NOA'+37.25		PT = STA 670'SOA'+35.01		PT = STA 64'ALB'+69.77	PT = STA 68'ALB'+64.39	PT = STA 73'ALB'+63.61	PT = STA 67'ALC'+37.67
Y = 489675.09		Y = 489696.28		Y = 489215.27	Y = 489570.42	Y = 490009.35	Y = 489387.41
X = 784104.33		X = 784052.49		X = 783739.87	X = 783911.58	X = 784149.14	X = 784014.59
BK = N 24°31'29.4" E		BK = N 24°31'29.4" E		BK = N 43°05'31.8" E	BK = N 24°38'23.3" E	BK = N 29°23'23.7" E	BK = N 5°01'18.2" W
AH = N 22°14'01.8" E		AH = N 22°14'01.8" E		AH = N 24°38'23.3" E	AH = N 29°23'23.7" E	AH = N 25°20'49.9" E	AH = N 19°08'21.3" E
SE = N/A		SE = N/A		SE = 4.70%	SE = 3.00%	SE = 4.00%	SE = 5.40%

END CONSTRUCTION
I.D. 1120-11-88
STA 685'NOA'+15.00
Y = 491042.97
X = 784663.49

POE STA 686'NOA'+00.00 =
STA 686'SOA'+00.00
Y = 491121.65
X = 784695.66

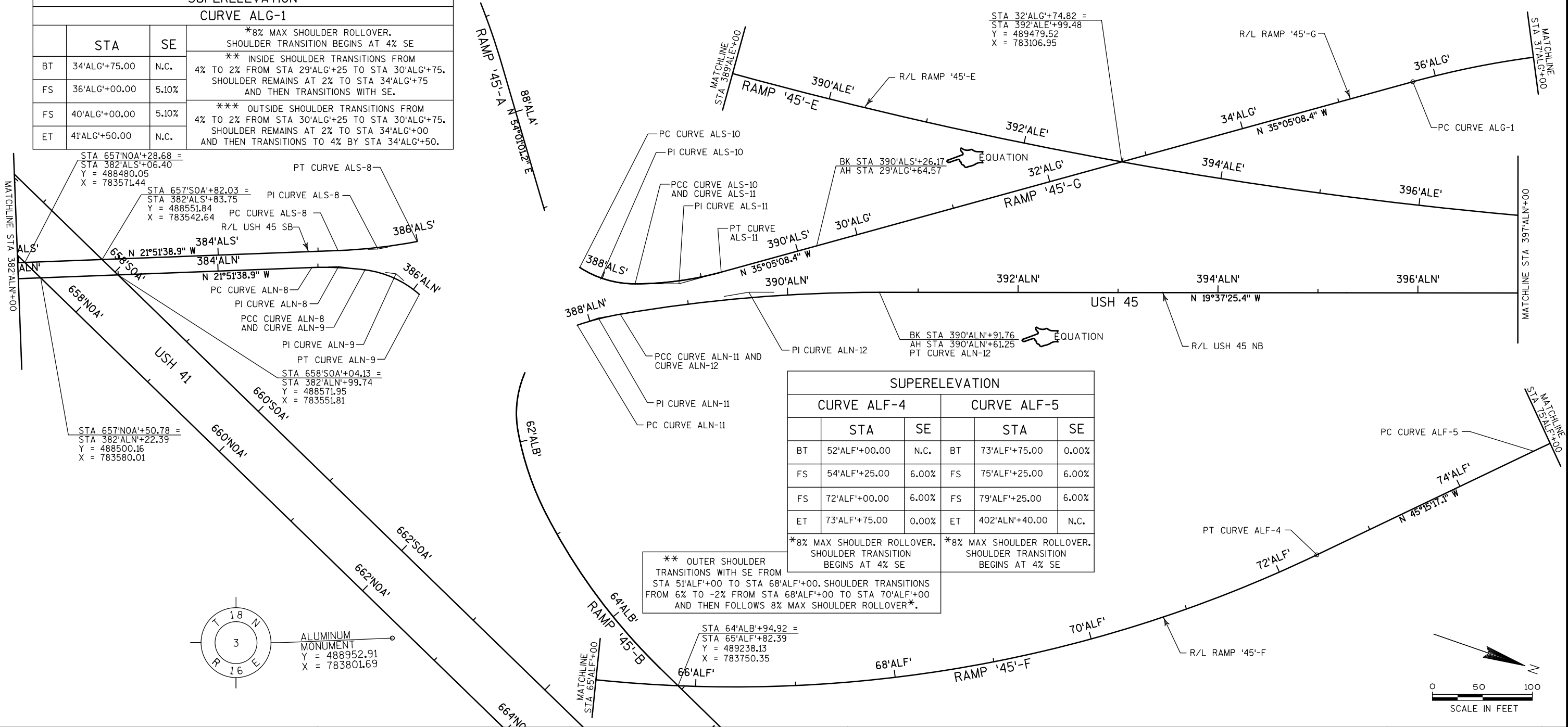


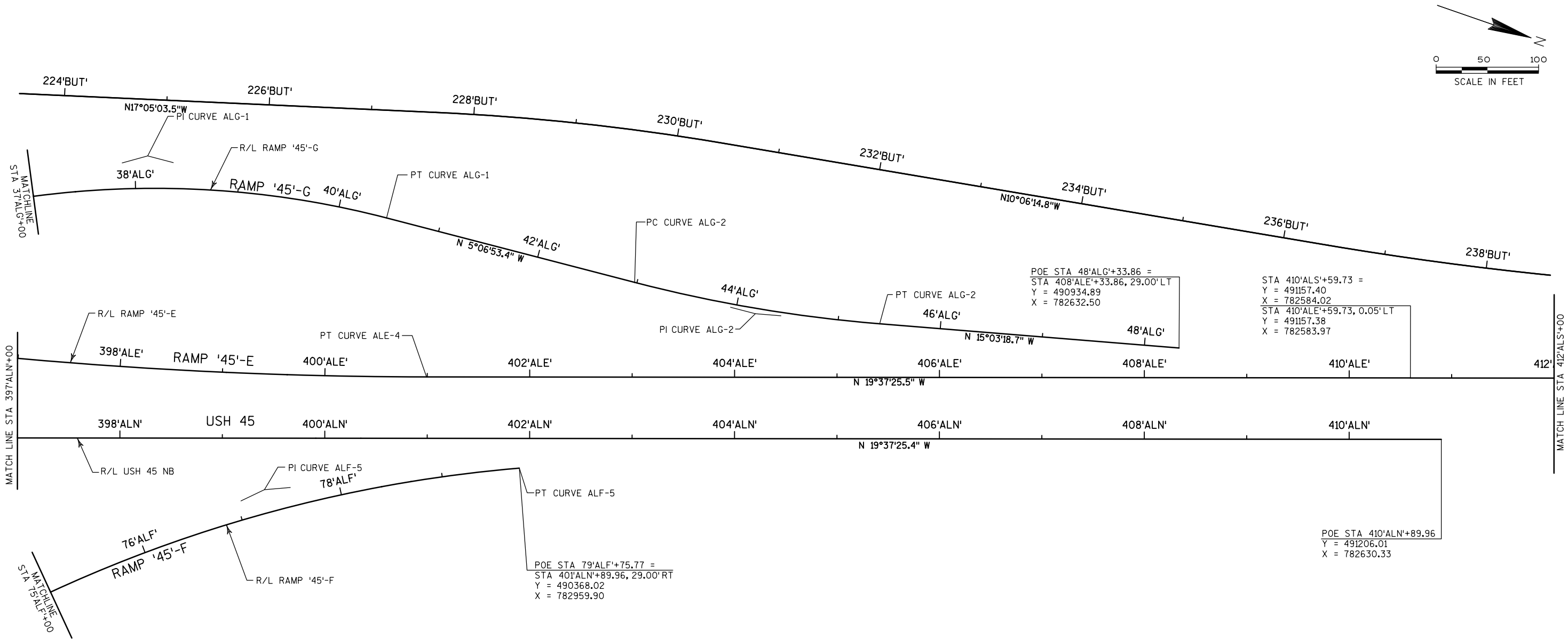
USH 45 NB	USH 45 SB
CURVE ALN-7 PI= STA 378'ALN'+72.77 Y = 488175.67 X = 783710.80 DELTA = 2°14'13.4" T = 39.09 L = 78.17 R = 2002.00 PC = STA 378'ALN'+33.68 Y = 488138.85 X = 783723.93 PT = STA 379'ALN'+11.85 Y = 488211.95 X = 783696.24 BK = N 19°37'25.5" W AH = N 21°51'38.9" W SE = 1.00%	CURVE ALS-7 PI= STA 380'ALS'+26.05 Y = 488312.66 X = 783638.60 DELTA = 2°14'13.4" T = 49.32 L = 98.63 R = 2526.00 PC = STA 379'ALS'+76.73 Y = 488266.21 X = 783655.16 PT = STA 380'ALS'+75.36 Y = 488358.43 X = 783620.23 BK = N 19°37'25.5" W AH = N 21°51'38.9" W SE = 2.09%

SUPERELEVATION		
CURVE ALE-4		
	STA	SE
BT	368'ALE'+75.00	2.00%
FS	369'ALE'+25.00	3.30%
FS	400'ALE'+50.00	3.30%
ET	401'ALE'+00.00	2.00%
*** TRANSITION FROM 2% TO N.C. FROM STA 401'ALE'+00 TO STA 402'ALE'+50		

USH 45 NB				USH 45 SB			RAMP '45'-E	RAMP '45'-F	RAMP '45'-G
CURVE ALN-8	CURVE ALN-9	CURVE ALN-11	CURVE ALN-12	CURVE ALS-8	CURVE ALS-10	CURVE ALS-11	CURVE ALE-4	CURVE ALF-4	CURVE ALG-1
PI= STA 385'ALN'+20.63 Y = 488776.96 X = 783469.56 DELTA = 9°21'53.1" T = 26.70 L = 53.28 R = 326.00 PC = STA 384'ALN'+93.93 Y = 488752.17 X = 783479.50 PCC = STA 385'ALN'+47.21 Y = 488803.02 X = 783463.78 BK = N 21°51'38.9" W AH = N 12°29'45.8" W SE = N/A	PI= STA 385'ALN'+78.44 Y = 488833.51 X = 783457.03 DELTA = 34°21'38.4" T = 31.23 L = 60.57 R = 101.00 PCC = STA 385'ALN'+47.21 Y = 488803.02 X = 783463.78 PT = STA 386'ALN'+07.78 Y = 488862.49 X = 783468.66 BK = N 12°29'45.8" W AH = N 21°51'52.6" E SE = N/A	PI= STA 388'ALN'+09.08 Y = 489038.99 X = 783430.54 DELTA = 9°12'53.4" T = 22.24 L = 44.39 R = 276.00 PC = STA 387'ALN'+86.84 Y = 489021.61 X = 783444.43 PCC = STA 388'ALN'+31.23 Y = 489058.37 X = 783419.62 BK = N 38°37'13.8" W AH = N 29°24'20.4" W SE = N/A	PI= STA 389'ALN'+61.81 Y = 489172.13 X = 783355.51 DELTA = 9°46'55.0" T = 130.58 L = 260.53 R = 1526.00 PCC = STA 388'ALN'+31.23 Y = 489058.37 X = 783419.62 PT = STA 390'ALN'+91.76 Y = 489295.12 X = 783311.65 BK = N 29°24'20.4" W AH = N 19°37'25.4" W SE = N/A	PI= STA 385'ALS'+59.88 Y = 488808.11 X = 783439.82 DELTA = 8°41'03.5" T = 39.94 L = 79.73 R = 526.00 PC = STA 385'ALS'+19.94 Y = 488771.05 X = 783454.69 PT = STA 385'ALS'+99.66 Y = 488842.51 X = 783419.52 BK = N 21°51'38.9" W AH = N 30°32'42.5" W SE = 6.00%	PI= STA 388'ALS'+05.02 Y = 489033.77 X = 783396.16 DELTA = 33°13'17.5" T = 30.13 L = 58.56 R = 101.00 PC = STA 387'ALS'+74.89 Y = 489004.47 X = 783389.15 PCC = STA 388'ALS'+33.45 Y = 489062.13 X = 783385.98 BK = N 13°27'37.3" E AH = N 19°45'40.2" W SE = 6.00%	PI= STA 388'ALS'+77.31 Y = 489103.40 X = 783371.15 DELTA = 15°19'28.2" T = 43.86 L = 87.19 R = 326.00 PCC = STA 388'ALS'+33.45 Y = 489062.13 X = 783385.98 PT = STA 389'ALS'+20.64 Y = 489139.29 X = 783345.94 BK = N 19°45'40.2" W AH = N 35°05'08.4" W SE = 6.00%	PI= STA 385'ALE'+64.43 Y = 488671.46 X = 783470.33 DELTA = 40°55'01.3" T = 1678.77 L = 3213.62 R = 4500.00 PCC = STA 368'ALE'+85.67 Y = 487107.29 X = 782860.70 PT = STA 400'ALE'+99.28 Y = 490252.72 X = 782906.53 BK = N 21°17'35.7" E AH = N 19°37'25.5" W SE = 3.30%	PI= STA 64'ALF'+89.67 Y = 489000.47 X = 784214.06 DELTA = 79°50'45.9" T = 1129.70 L = 1881.33 R = 1350.00 PC = STA 53'ALF'+59.97 Y = 488070.48 X = 783572.71 PT = STA 72'ALF'+41.30 Y = 489795.73 X = 783411.70 BK = N 34°35'28.7" E AH = N 45°15'17.1" W SE = 6.00%	PI= STA 38'ALG'+17.65 Y = 489923.71 X = 782794.93 DELTA = 29°58'15.0" T = 240.91 L = 470.78 R = 900.00 PC = STA 35'ALG'+76.74 Y = 489726.58 X = 782933.41 PT = STA 40'ALG'+47.52 Y = 490163.66 X = 782773.45 BK = N 35°05'08.4" W AH = N 5°06'53.4" W SE = 3.90%

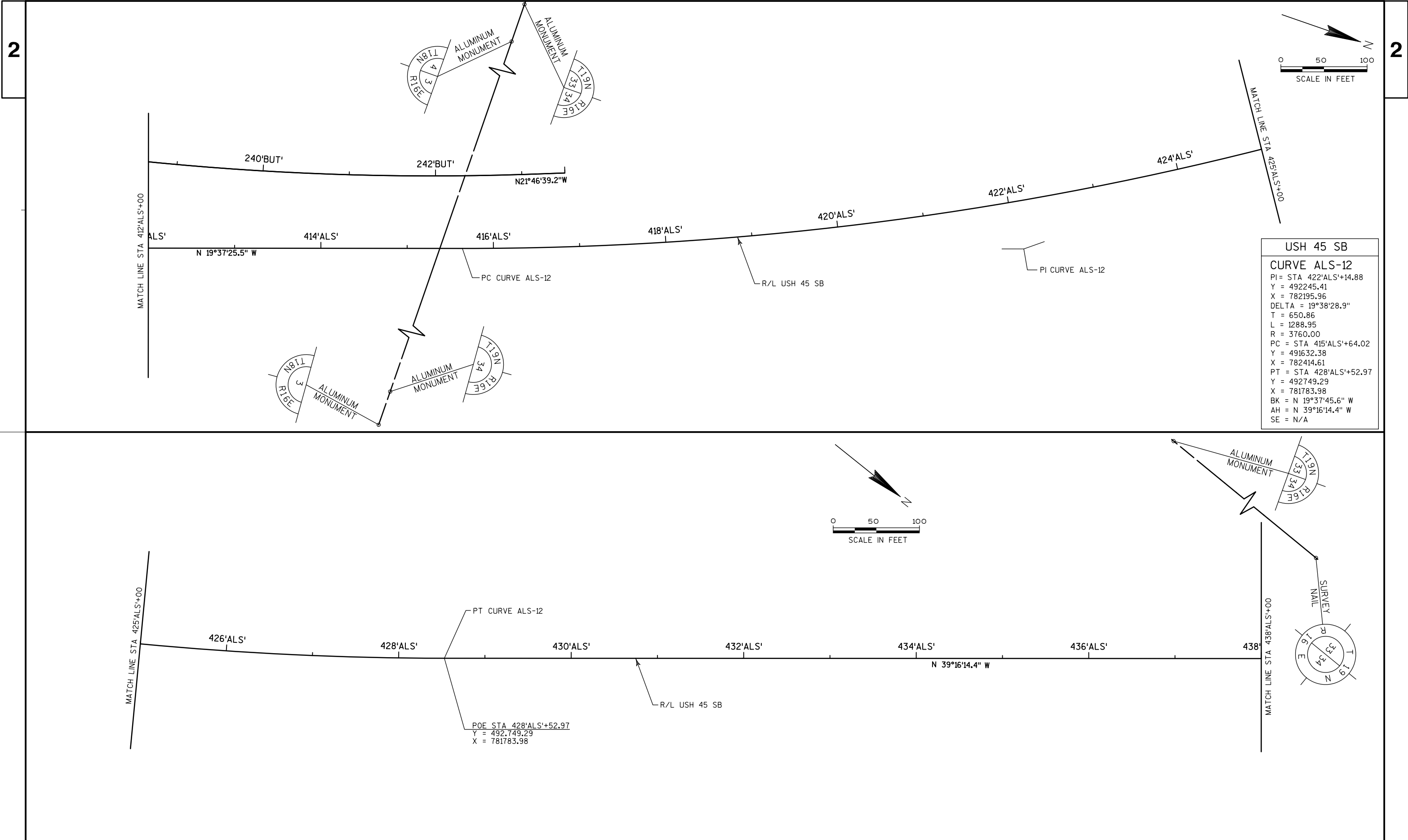
SUPERELEVATION		
CURVE ALG-1		
	STA	SE
BT	34'ALG'+75.00	N.C.
FS	36'ALG'+00.00	5.10%
FS	40'ALG'+00.00	5.10%
ET	41'ALG'+50.00	N.C.
*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE		
** INSIDE SHOULDER TRANSITIONS FROM 4% TO 2% FROM STA 29'ALG'+25 TO STA 30'ALG'+75. SHOULDER REMAINS AT 2% TO STA 34'ALG'+75 AND THEN TRANSITIONS WITH SE.		
*** OUTSIDE SHOULDER TRANSITIONS FROM 4% TO 2% FROM STA 30'ALG'+25 TO STA 30'ALG'+75. SHOULDER REMAINS AT 2% TO STA 34'ALG'+00 AND THEN TRANSITIONS TO 4% BY STA 34'ALG'+50.		

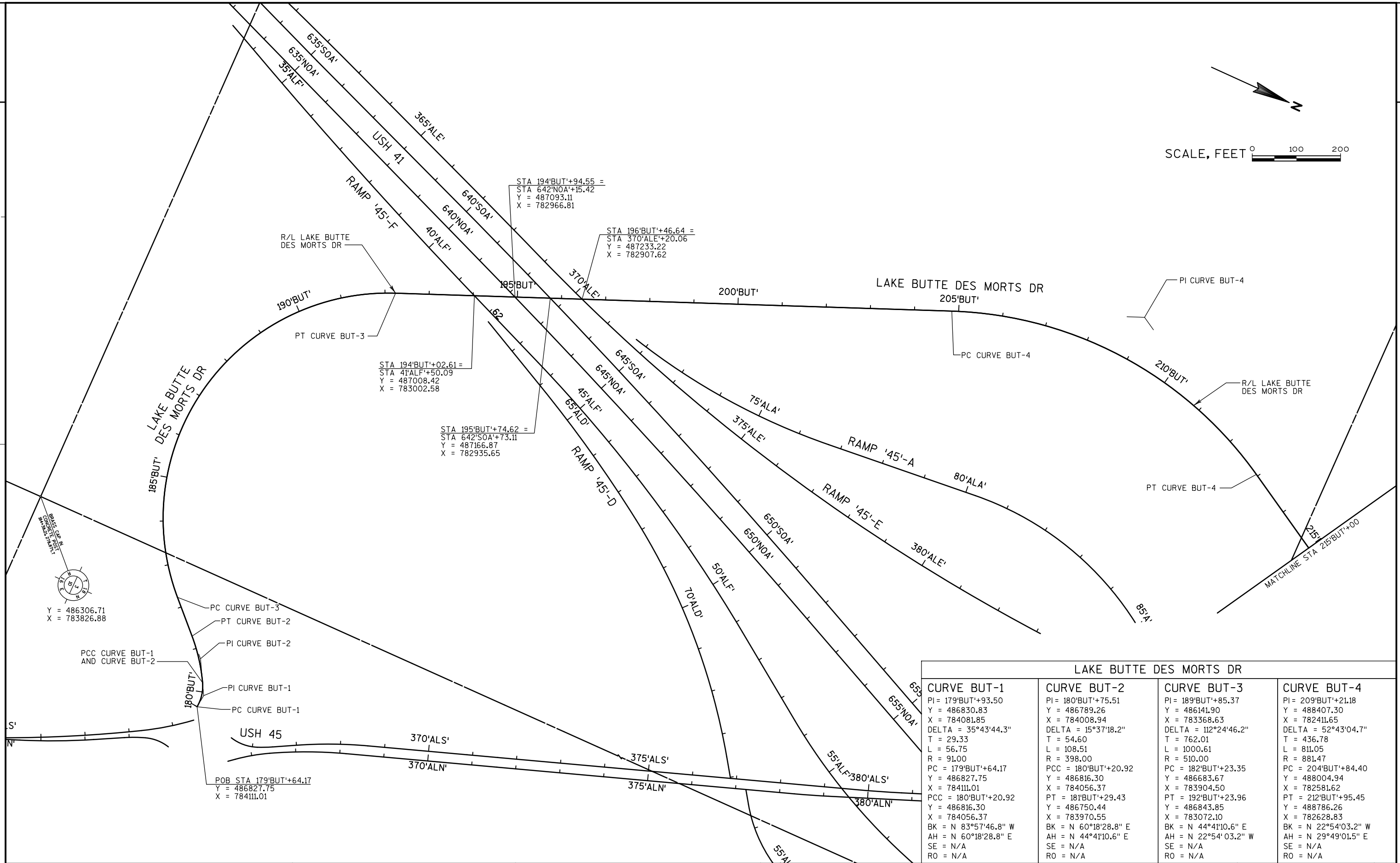


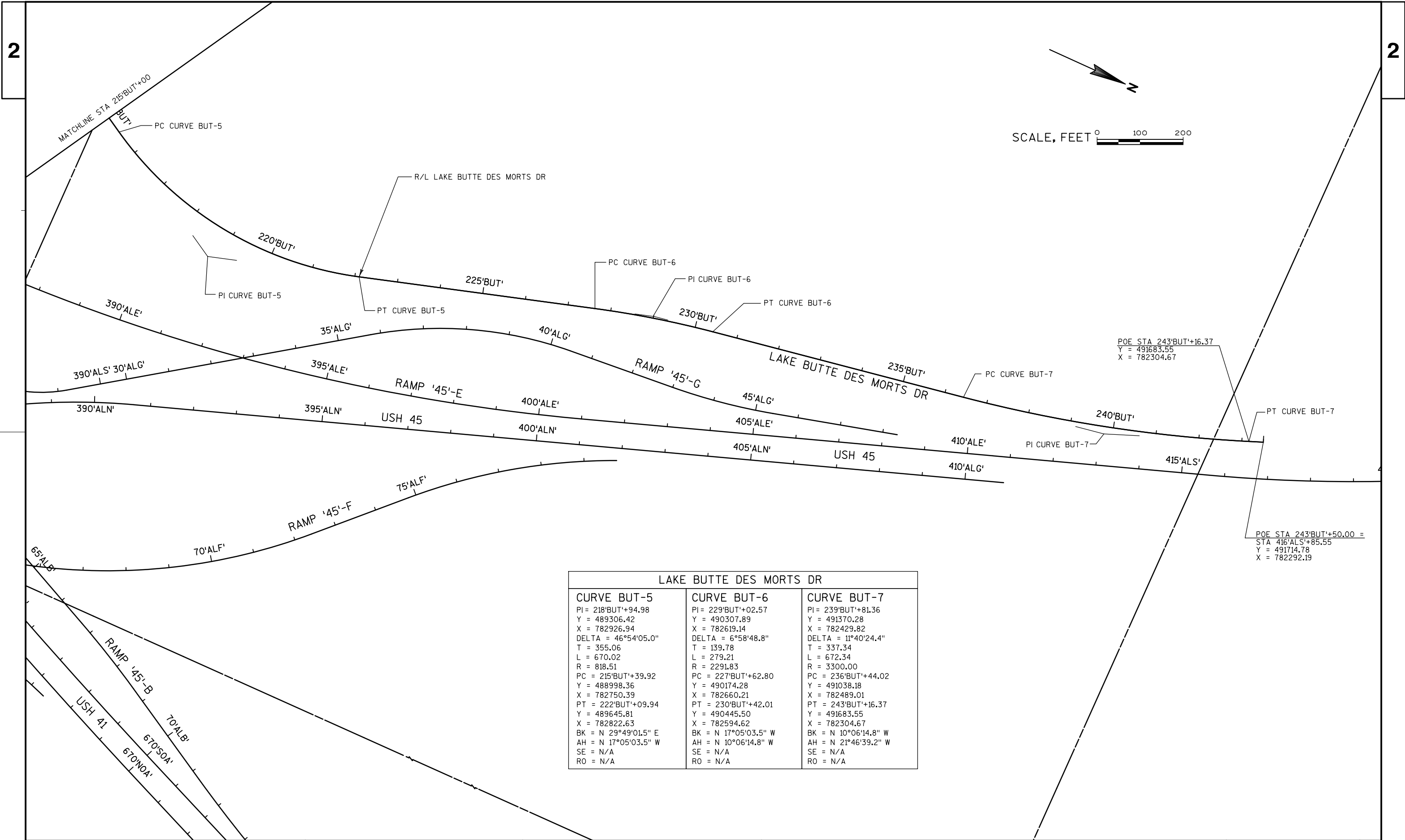


SUPERELEVATION			SUPERELEVATION			SUPERELEVATION			SUPERELEVATION		
CURVE ALE-4			CURVE ALF-5			CURVE ALG-1			CURVE ALG-2		
	STA	SE		STA	SE		STA	SE		STA	SE
BT	368'ALE'+75.00	2.00%	BT	73'ALF'+75.00	0.00%	BT	34'ALG'+75.00	N.C.	BT	42'ALG'+75.00	N.C.
FS	369'ALE'+25.00	3.30%	FS	75'ALF'+25.00	6.00%	FS	36'ALG'+00.00	5.10%	FS	43'ALG'+50.00	5.20%
FS	400'ALE'+50.00	3.30%	FS	79'ALF'+25.00	6.00%	FS	40'ALG'+00.00	5.10%	FS	45'ALG'+00.00	5.20%
ET	401'ALE'+00.00	2.00%	ET	402'ALN'+40.00	N.C.	ET	41'ALG'+50.00	N.C.	ET	45'ALG'+75.00	N.C.
*** TRANSITION FROM 2% TO N.C. FROM STA 401'ALE'+00 TO STA 402'ALE'+50			*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE						*8% MAX SHOULDER ROLLOVER. SHOULDER TRANSITION BEGINS AT 4% SE		

RAMP '45'-E	RAMP '45'-F	RAMP '45'-G	
CURVE ALE-4	CURVE ALF-5	CURVE ALG-1	CURVE ALG-2
PI= STA 385'ALE'+64.43 Y = 488671.46 X = 783470.33 DELTA = 40°55'01.3" T = 1678.77 L = 3213.62 R = 4500.00 PCC = STA 368'ALE'+85.67 Y = 487107.29 X = 782860.70 PT = STA 400'ALE'+99.28 Y = 490252.72 X = 782906.53 BK = N 21°17'35.7" E AH = N 19°37'25.5" W SE = 3.30%	PI= STA 77'ALF'+31.50 Y = 490140.81 X = 783063.54 DELTA = 20°44'09.1" T = 249.73 L = 494.01 R = 1365.00 PC = STA 74'ALF'+81.76 Y = 489965.01 X = 783240.91 PT = STA 79'ALF'+75.77 Y = 490368.02 X = 782959.90 BK = N 45°15'17.1" W AH = N 24°31'08.0" W SE = 6.00%	PI= STA 38'ALG'+17.65 Y = 489923.71 X = 782794.93 DELTA = 29°58'15.0" T = 240.91 L = 470.78 R = 900.00 PC = STA 35'ALG'+76.74 Y = 489726.58 X = 782933.41 PT = STA 40'ALG'+47.52 Y = 490163.66 X = 782773.45 BK = N 35°05'08.4" W AH = N 5°06'53.4" W SE = 5.10%	PI= STA 44'ALG'+19.51 Y = 490534.18 X = 782740.29 DELTA = 9°56'25.4" T = 121.75 L = 242.89 R = 1400.00 PC = STA 42'ALG'+97.76 Y = 490412.91 X = 782751.14 PT = STA 45'ALG'+40.65 Y = 490651.75 X = 782708.67 BK = N 5°06'53.4" W AH = N 15°03'18.7" W SE = 5.20%







LAKE BUTTE DES MORTS DR		
CURVE BUT-5	CURVE BUT-6	CURVE BUT-7
PI= 218'BUT'+94.98	PI= 229'BUT'+02.57	PI= 239'BUT'+81.36
Y = 489306.42	Y = 490307.89	Y = 491370.28
X = 782926.94	X = 782619.14	X = 782429.82
DELTA = 46°54'05.0"	DELTA = 6°58'48.8"	DELTA = 11°40'24.4"
T = 355.06	T = 139.78	T = 337.34
L = 670.02	L = 279.21	L = 672.34
R = 818.51	R = 2291.83	R = 3300.00
PC = 215'BUT'+39.92	PC = 227'BUT'+62.80	PC = 236'BUT'+44.02
Y = 488998.36	Y = 490174.28	Y = 491038.18
X = 782750.39	X = 782660.21	X = 782489.01
PT = 222'BUT'+09.94	PT = 230'BUT'+42.01	PT = 243'BUT'+16.37
Y = 489645.81	Y = 490445.50	Y = 491683.55
X = 782822.63	X = 782594.62	X = 782304.67
BK = N 29°49'01.5" E	BK = N 17°05'03.5" W	BK = N 10°06'14.8" W
AH = N 17°05'03.5" W	AH = N 10°06'14.8" W	AH = N 21°46'39.2" W
SE = N/A	SE = N/A	SE = N/A
RO = N/A	RO = N/A	RO = N/A

DATE 24JAN13		E S T I M A T E O F Q U A N T I T I E S			
LINE					1120-11-88
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	213.0100	FINISHING ROADWAY (PROJECT) 01. 1120-11-88	EACH	1.000	1.000
0020	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1120-11-88	EACH	1.000	1.000
0030	619.1000	MOBILIZATION	EACH	1.000	1.000
0040	625.0100	TOPSOIL **P**	SY	29,900.000	29,900.000
0050	627.0200	MULCHING **P**	SY	26,300.000	26,300.000
0060	628.1504	SILT FENCE	LF	1,925.000	1,925.000
0070	628.1520	SILT FENCE MAINTENANCE	LF	1,925.000	1,925.000
0080	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	10.000	10.000
0090	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5.000	5.000
0100	628.2004	EROSION MAT CLASS I TYPE B **P**	SY	2,420.000	2,420.000
0110	628.2023	EROSION MAT CLASS II TYPE B **P**	SY	1,550.000	1,550.000
0120	628.7005	INLET PROTECTION TYPE A	EACH	1.000	1.000
0130	628.7504	TEMPORARY DITCH CHECKS	LF	30.000	30.000
0140	628.7555	CULVERT PIPE CHECKS	EACH	28.000	28.000
0150	628.7570	ROCK BAGS	EACH	20.000	20.000
0160	629.0210	FERTILIZER TYPE B **P**	CWT	20.000	20.000
0170	630.0140	SEEDING MIXTURE NO. 40 **P**	LB	545.000	545.000
0180	630.0200	SEEDING TEMPORARY	LB	410.000	410.000
0190	632.0101	TREES (SPECIES, ROOT, SIZE) 01. BIRCH, RIVER 'HERITAGE' (MULTISTEMMED), B&B, 8' HT	EACH	3.000	3.000
0200	632.0101	TREES (SPECIES, ROOT, SIZE) 02. HACKBERRY 'PRAIRIE PRIDE', B&B, 2 1/2" CAL	EACH	1.000	1.000
0210	632.0101	TREES (SPECIES, ROOT, SIZE) 03. HICKORY, SHAGBARK, B&B, 1.75" CAL	EACH	2.000	2.000
0220	632.0101	TREES (SPECIES, ROOT, SIZE) 04. MAPLE, RED 'NORTHWOOD', B&B, 2 1/2" CAL	EACH	19.000	19.000
0230	632.0101	TREES (SPECIES, ROOT, SIZE) 05. OAK, BUR, B&B, 2" CAL	EACH	2.000	2.000
0240	632.0101	TREES (SPECIES, ROOT, SIZE) 06. OAK, SWAMP WHITE, B&B, 2" CAL	EACH	5.000	5.000
0250	632.0101	TREES (SPECIES, ROOT, SIZE) 07. CRABAPPLE, REDBUD (SHRUB FORM TREE), B&B, 8' HT	EACH	14.000	14.000
0260	632.0101	TREES (SPECIES, ROOT, SIZE) 08. DOGWOOD, CORNELIANCHERRY 'GOLDEN GLORY', B&B, 1. 75" CAL	EACH	3.000	3.000
0270	632.0101	TREES (SPECIES, ROOT, SIZE) 09. DOGWOOD, CORNELIANCHERRY 'GOLDEN GLORY' (SHRUB FORM TREE), B&B, 5' HT	EACH	13.000	13.000
0280	632.0101	TREES (SPECIES, ROOT, SIZE) 10. HAWTHORN, COCKSPUR (THORNLESS) B&B, 2" CAL	EACH	13.000	13.000
0290	632.0101	TREES (SPECIES, ROOT, SIZE) 11. HAWTHORN, COCKSPUR (THORNLESS) (SHRUB FORM TREE), B&B, 6' HT	EACH	4.000	4.000
0300	632.0101	TREES (SPECIES, ROOT, SIZE) 12. HOPHORNBEAM, B&B, 2" CAL	EACH	6.000	6.000
0310	632.0101	TREES (SPECIES, ROOT, SIZE) 13. SERVICEBERRY, 'PRINCESS DIANA' (SHRUB FORM TREE), B&B, 9' HT	EACH	6.000	6.000
0320	632.0101	TREES (SPECIES, ROOT, SIZE) 14. VIBURNUM, BLACKHAW (SHRUB FORM TREE) B&B, 6' HT	EACH	47.000	47.000

DATE 24JAN13		E S T I M A T E O F Q U A N T I T I E S				
LINE						1120-11-88
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL		QUANTITY
0330	632.0101	TREES (SPECIES, ROOT, SIZE) 15. EASTERN REDCEDAR, HILL DUNDEE, B&B, 4' HT	EACH	22.000		22.000
0340	632.0101	TREES (SPECIES, ROOT, SIZE) 16. EASTERN REDCEDAR, HILL DUNDEE, B&B, 6' HT	EACH	19.000		19.000
0350	632.0101	TREES (SPECIES, ROOT, SIZE) 17. PINE, LIMBER, B&B, 7' HT	EACH	17.000		17.000
0360	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 01. BUSH HONEYSUCKLE DWARF, CG, 12" HT	EACH	45.000		45.000
0370	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 02. CHOKEBERRY, BLACK 'IROQUOIS BEAUTY', CG, 12" HT	EACH	42.000		42.000
0380	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 03. DOGWOOD, RED TWIG 'ARTIC FIRE', CG, 24" HT	EACH	95.000		95.000
0390	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 04. ROSE, RUGOSA 'DWARF PAVEMENT', CG, 12" HT	EACH	186.000		186.000
0400	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 05. SPIREA 'MAGIC CARPET', CG, 12" HT	EACH	142.000		142.000
0410	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 06. ST. JOHN'S WORT, KALMS 'AMES', CG, 12" HT	EACH	116.000		116.000
0420	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 07. SUMAC, STAGHORN CUTLEAF, CG, 3' HT	EACH	7.000		7.000
0430	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 08. VIBURNUM, EUROPEAN CRANBERRYBUSH DWARF, CG, 12" HT	EACH	55.000		55.000
0440	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 09. JUNIPER, 'KALLAYS COMPACT', CG, 12" HT	EACH	168.000		168.000
0450	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	26.000		26.000
0460	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01. 1120-11-88	DAY	37.000		37.000
0470	643.0300	TRAFFIC CONTROL DRUMS	DAY	7,585.000		7,585.000
0480	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	74.000		74.000
0490	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	259.000		259.000
0500	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	148.000		148.000
0510	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	74.000		74.000
0520	643.0900	TRAFFIC CONTROL SIGNS	DAY	1,517.000		1,517.000
0530	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	1,200.000		1,200.000
0540	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	480.000		480.000
0550	SPV.0060	SPECIAL 0251. TEMPORARY STONE DITCH CHECKS	EACH	1.000		1.000
0560	SPV.0090	SPECIAL 0451. SHOVEL CUT EDGE	LF	2,077.000		2,077.000
0570	SPV.0180	SPECIAL 0451. PLANTING BED PREPARATION	SY	1,060.000		1,060.000
0580	SPV.0180	SPECIAL 0452. SHREDDED HARDWOOD BARK MULCH	SY	1,060.000		1,060.000

MOBILIZATION	
PROJECT	619.1000 MOBILIZATION EACH
CAT 0010	
1120-11-88	1
TOTAL	1

LANDSCAPING ITEMS					
LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEED MIXTURE NO. 40 LBS	630.0200 SEED TEMPORARY LBS
CAT 0010					
AREA A	9,351	7,897	6	169	127
AREA B	3,159	2,616	2	57	43
AREA C	1,855	1,855	1	34	26
AREA D	213	213		4	3
AREA E	3,586	3,586	2	65	49
AREA F	6,849	5,579	4	124	93
AREA G	2,153	2,153	1	39	30
UNDISTRIBUTED	2,734	2,401	3	53	39
TOTALS	29,900	26,300	20	545	410

SILT FENCE ITEMS		
LOCATION	628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF
CAT 0010		
AREA A	786	786
AREA C	313	313
AREA F	202	202
AREA G	445	445
UNDISTRIBUTED	179	179
TOTALS	1,925	1,925

EROSION CONTROL MOBILIZATIONS ITEMS		
PROJECT	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
CAT 0010		
1120-11-88	10	5
TOTALS	10	5

EROSION MAT ITEMS		
LOCATION	628.2004 CLASS 1 TYPE B SY	628.2023 CLASS 2 TYPE B SY
CAT 0010		
AREA A	1,455	--
AREA B	543	--
AREA F	--	1,270
UNDISTRIBUTED	422	280
TOTALS	2,420	1,550

INLET PROTECTION ITEMS		
LOCATION	628.7005 TYPE A EACH	
CAT 0010		
68'ALD'+98	LT	1
TOTAL		1

DITCH CHECK ITEMS

	628.7504 TEMPORARY DITCH CHECKS	628.7555 CULVERT PIPE CHECKS	628.7570 ROCK BAGS	SPV.0060.0251 TEMPORARY STONE DITCH CHECKS
LOCATION	LF	EACH	EACH	EACH
CAT 0010				
AREA A	--	7	--	1
AREA B	--	5	--	--
AREA C	--	10	--	--
AREA E	--	3	--	--
AREA G	20	--	15	
UNDISTRIBUTED	10	3	5	--
TOTALS	30	28	20	1

PLANTING ITEMS

	632.0101.01 TREES BIRCH, RIVER 'HERITAGE' (MULTISTEMMED) B&B, 8' HT	632.0101.02 TREES HACKBERRY 'PRAIRIE PRIDE' B&B, 2 1/2" CAL	632.0101.03 TREES HICKORY, SHAGBARK B&B, 1.75" CAL	632.0101.04 TREES MAPLE, RED 'NORTHWOOD' B&B, 2 1/2" CAL	632.0101.05 TREES OAK, BUR B&B, 2" CAL	632.0101.06 TREES OAK, SWAMP WHITE B&B, 2" CAL	632.0101.07 TREES CRABAPPLE, REDBUD (SHRUB FORM TREE) B&B, 8' HT	632.0101.08 TREES DOGWOOD, CORNELIANCHERRY 'GOLDEN GLORY' B&B, 1.75" CAL	632.0101.09 TREES DOGWOOD, CORNELIANCHERRY 'GOLDEN GLORY' (SHRUB FORM TREE) B&B, 5' HT	632.0101.10 TREES HAWTHORN, COCKSPUR (THORNLESS) B&B, 2" CAL	632.0101.11 TREES HAWTHORN, COCKSPUR (THORNLESS) (SHRUB FORM TREE) B&B, 6' HT	632.0101.12 TREES HOPHORNBEAM B&B, 2" CAL	632.0101.13 TREES SERVICEBERRY, 'PRINCESS DIANA' (SHRUB FORM TREE) B&B, 9' HT	632.0101.14 TREES VIBURNUM, BLACKHAW (SHRUB FORM TREE) B&B, 6' HT	632.0101.15 TREES EASTERN REDCEDAR, HILL DUNDEE B&B, 4' HT
PROJECT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
CAT 0010															
1120-11-88	3	1	2	19	2	5	14	3	13	13	4	6	6	47	22
TOTALS	3	1	2	19	2	5	14	3	13	13	4	6	6	47	22

PLANTING ITEMS (CONTINUED)

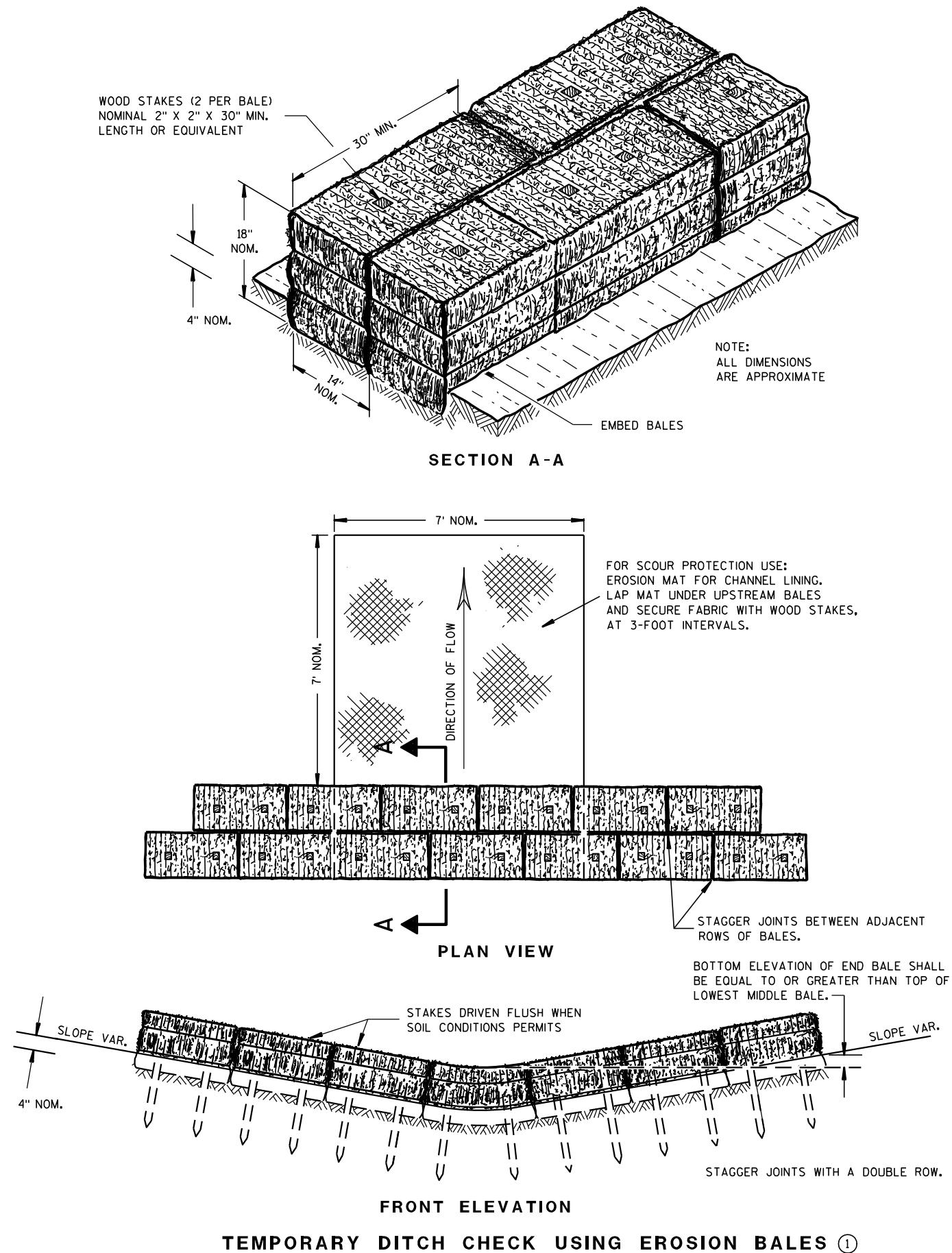
	632.0101.16 TREES EASTERN REDCEDAR, HILL DUNDEE B&B, 6' HT	632.0101.17 TREES PINE, LIMBER B&B, 7' HT	632.0201.01 SHRUBS BUSH HONEYSUCKLE, DWARF CG, 12" HT	632.0201.02 SHRUBS CHOKEBERRY, BLACK 'IROQUOIS BEAUTY' CG, 12" HT	632.0201.03 SHRUBS DOGWOOD, RED TWIG 'ARCTIC FIRE' CG, 24" HT	632.0201.04 SHRUBS ROSE, RUGOSA 'DWARF PAVEMENT' CG, 12" HT	632.0201.05 SHRUBS SPIREA 'MAGIC CARPET' CG, 12" HT	632.0201.06 SHRUBS ST. JOHN'S WORT, KALMS 'AMES' CG, 12" HT	632.0201.07 SHRUBS SUMAC, STAGHORN CUTLEAF CG, 3' HT	632.0201.08 SHRUBS VIBURNUM, EUROPEAN CRANBERRYBUSH DWARF CG, 12" HT	632.0201.09 SHRUBS JUNIPER, 'KALLAYS COMPACT' CG, 12" HT	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	SPV.0090.0451 SHOVEL CUT EDGE LF	SPV.0180.0451 PLANTING BED PREPARATION SY	SPV.0180.0452 SHREDDED HARDWOOD BARK MULCH SY
PROJECT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH			
CAT 0010															
1120-11-88	19	17	45	42	95	186	142	116	7	55	168	26	2077	1060	1060
TOTALS	19	17	45	42	95	186	142	116	7	55	168	26	2077	1060	1060

TRAFFIC CONTROL ITEMS

LOCATION	DAYS	643.0300		643.0420		643.0705		643.0715		643.0800		643.0900	
		DRUMS		BARRICADES		WARNING LIGHTS		WARNING LIGHTS		ARROW		SIGNS	
		NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	DAYS
CAT 0010													
USH 41	37	23	851	--	--	--	--	--	--	1	37	8	296
RAMP '45'-A	37	19	703	--	--	--	--	--	--	--	--	3	111
RAMP '45'-B	37	15	555	--	--	--	--	--	--	--	--	3	111
RAMP '45'-C	37	16	592	--	--	--	--	--	--	--	--	3	111
RAMP '45'-D	37	16	592	--	--	--	--	--	--	--	--	3	111
RAMP '45'-E	37	19	703	--	--	--	--	--	--	--	--	5	185
RAMP '45'-F	37	18	666	--	--	--	--	--	--	--	--	3	111
USH 45	37	57	2,109	2	74	7	259	4	148	1	37	16	592
LAKE BUTTE DES MORTS DR	37	45	1,665	--	--	--	--	--	--	--	--	5	185
TOTALS		7,585		74		259		148		74		1,517	

Standard Detail Drawing List

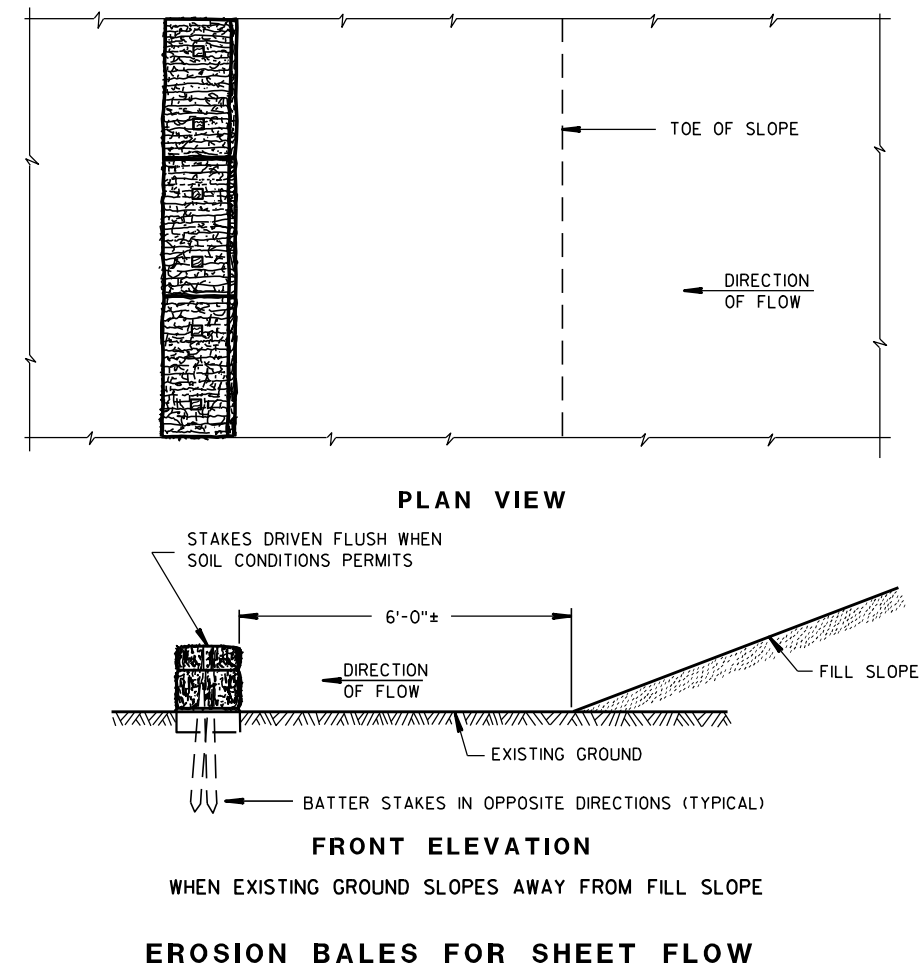
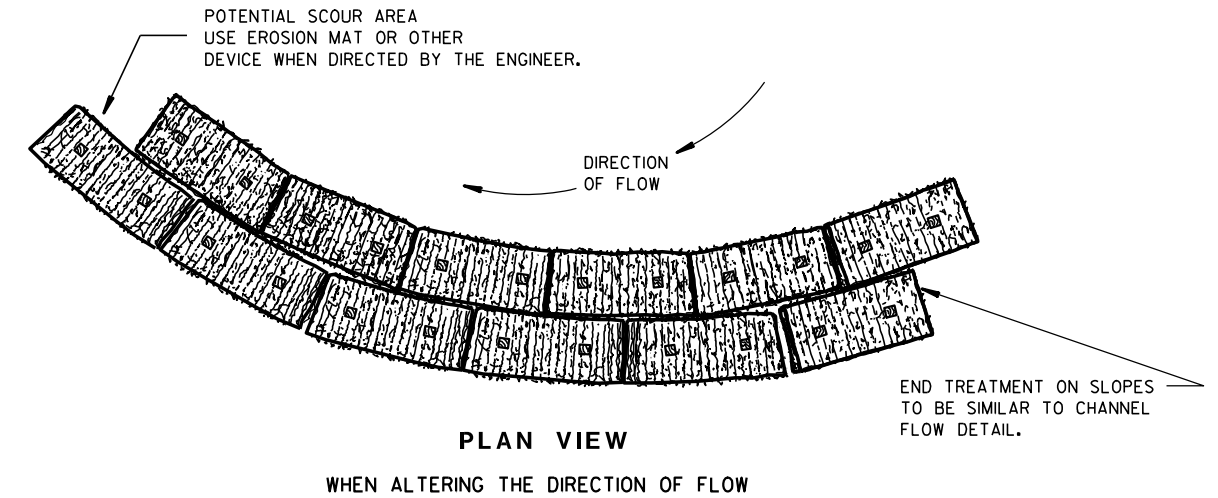
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
14A02-01	TREE PLANTING DETAIL
15D20-01	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-01	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-01	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29-02	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

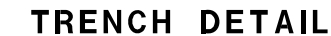
6/04/02
DATE

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

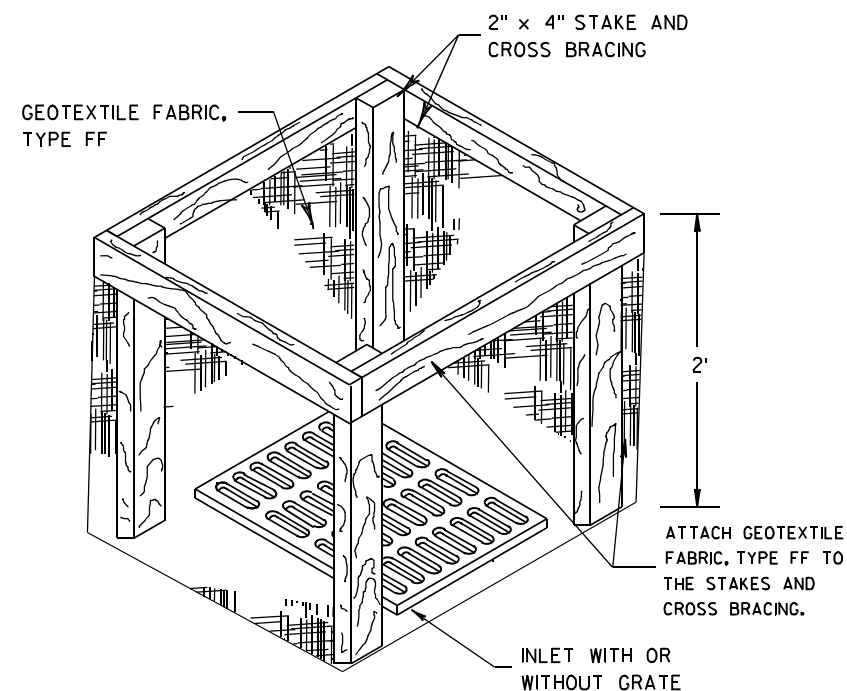
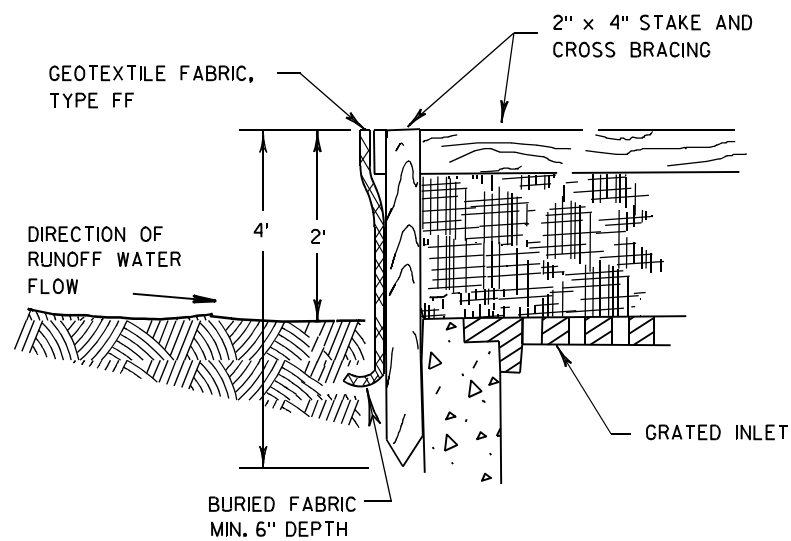
FHWA



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4-29-05</u> DATE	<u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

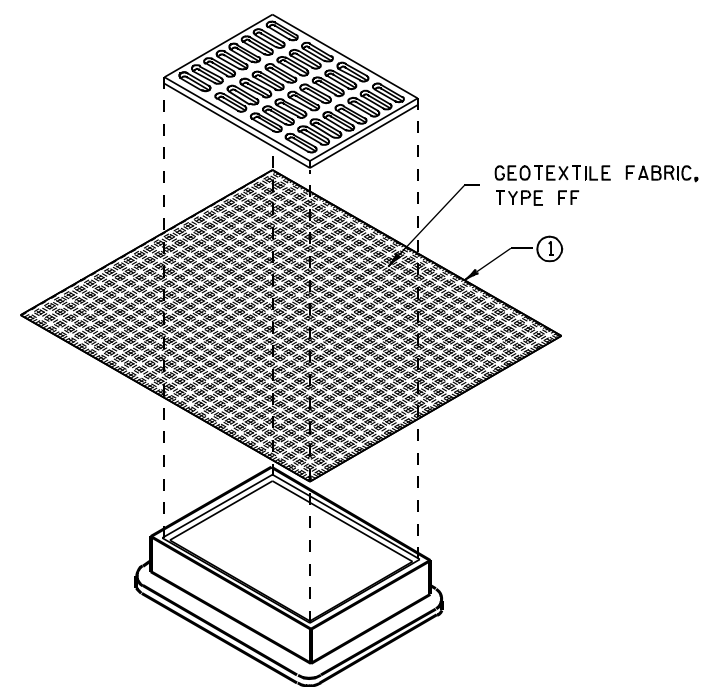
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

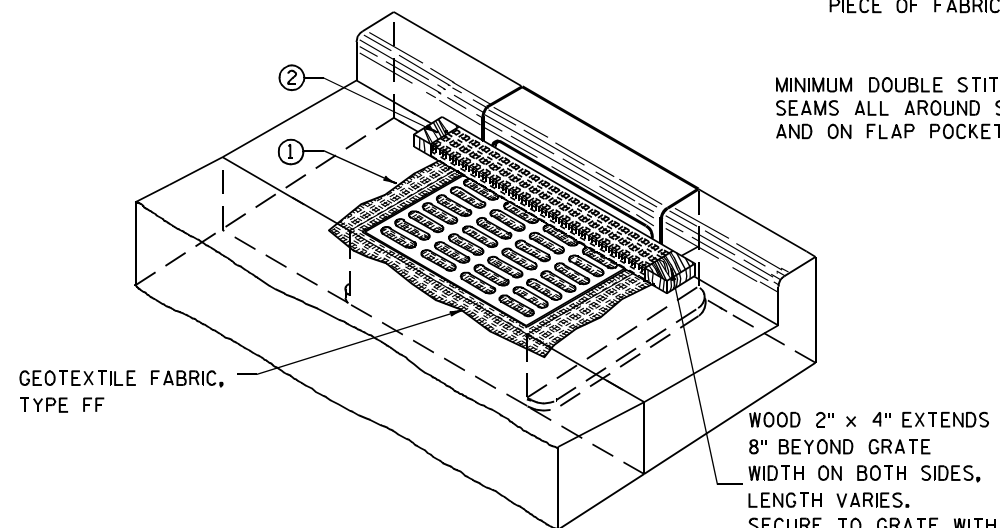
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

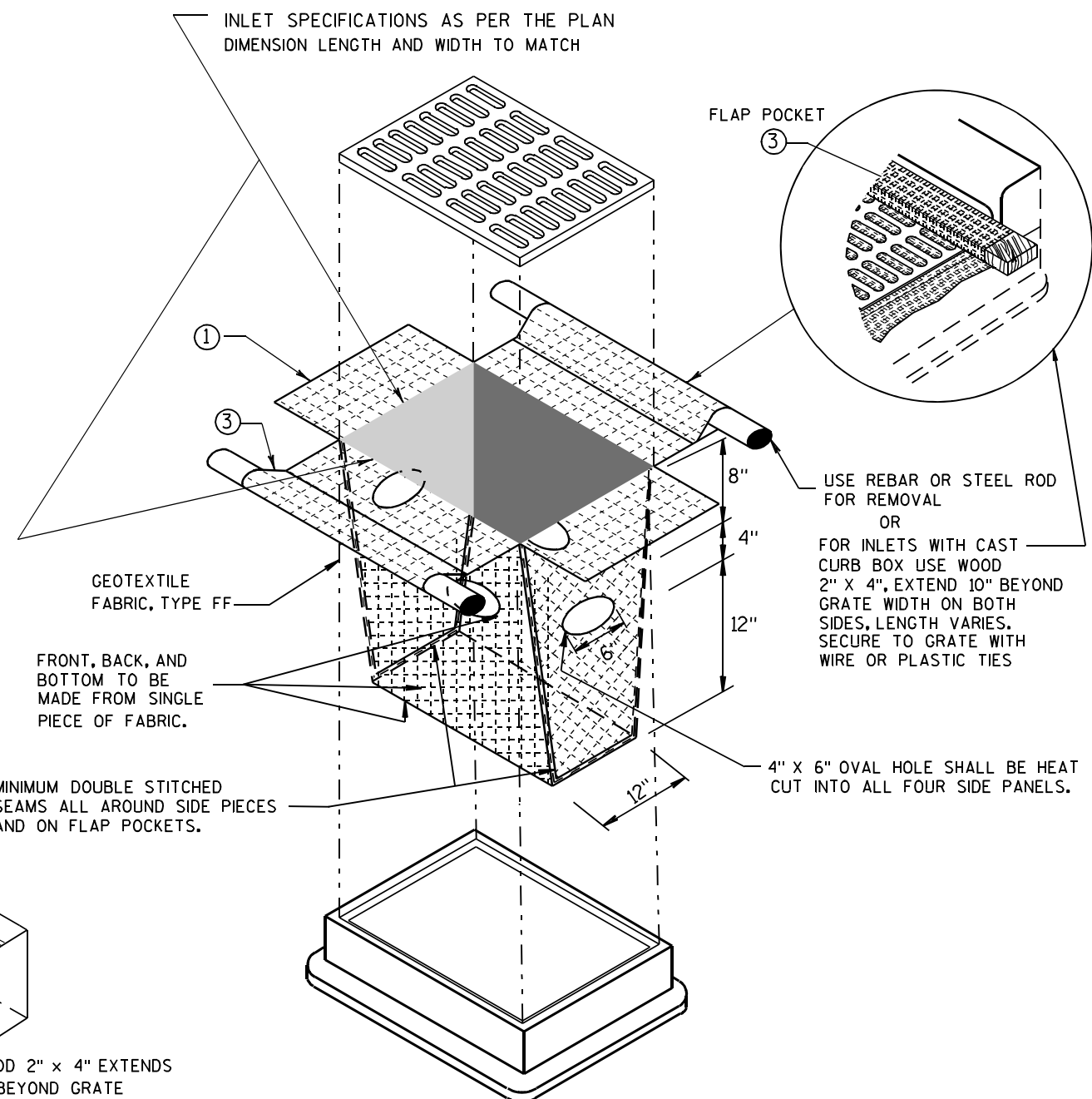
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLower THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



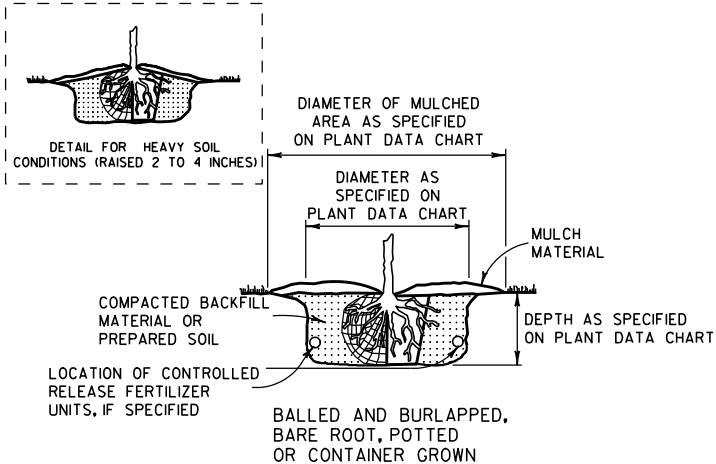
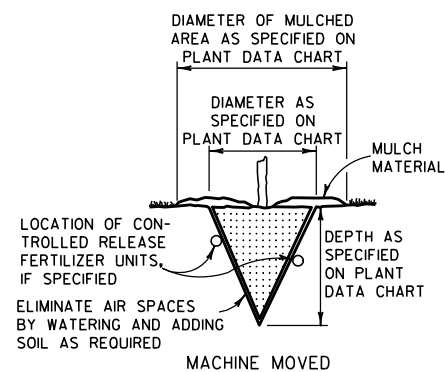
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

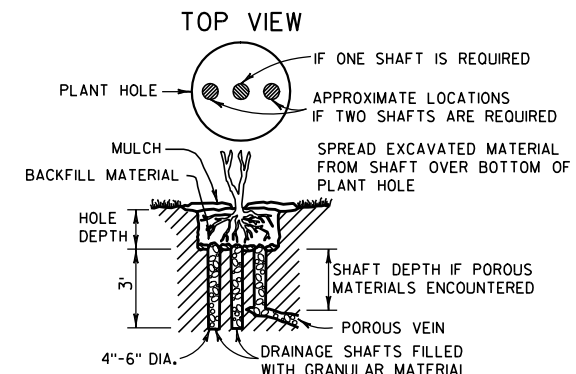
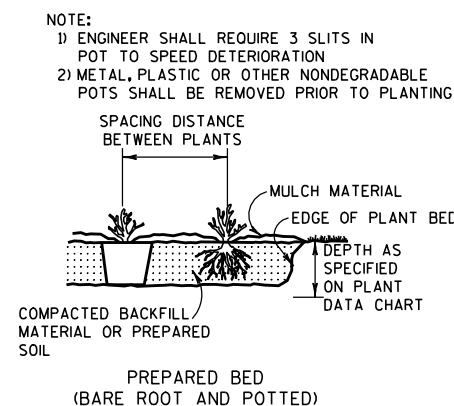
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



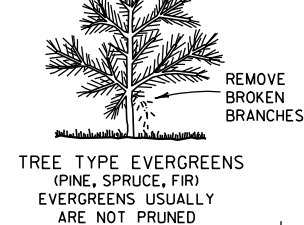
ACCOMMODATE ROOTS
(SMOOTH AND STAGHORN SUMAC)



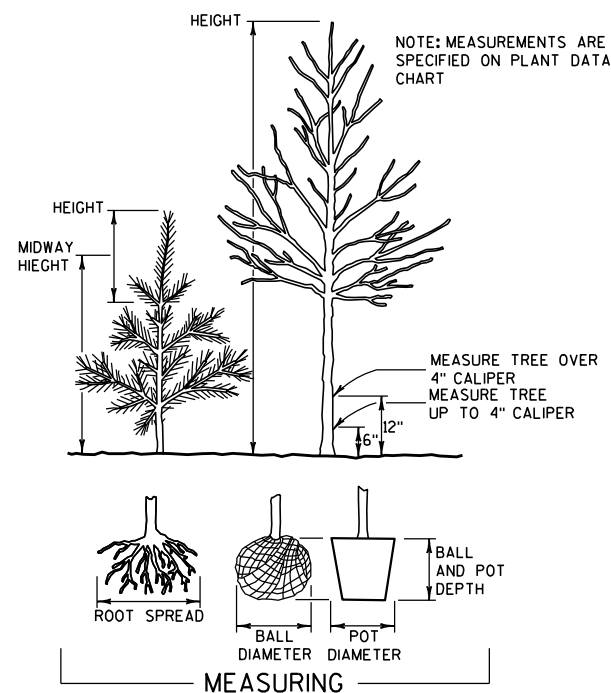
NOTE:
DRAINAGE SHAFT AS SPECIFIED ON
PLANT DATA CHART

DRAINING

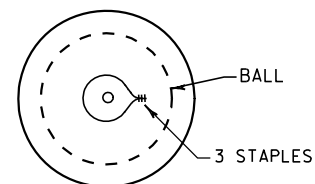
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES



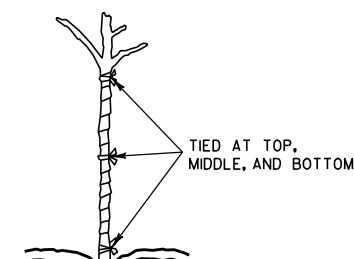
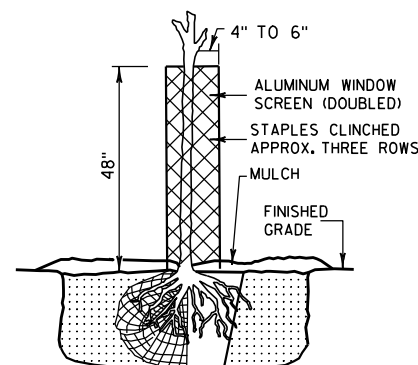
PRUNING



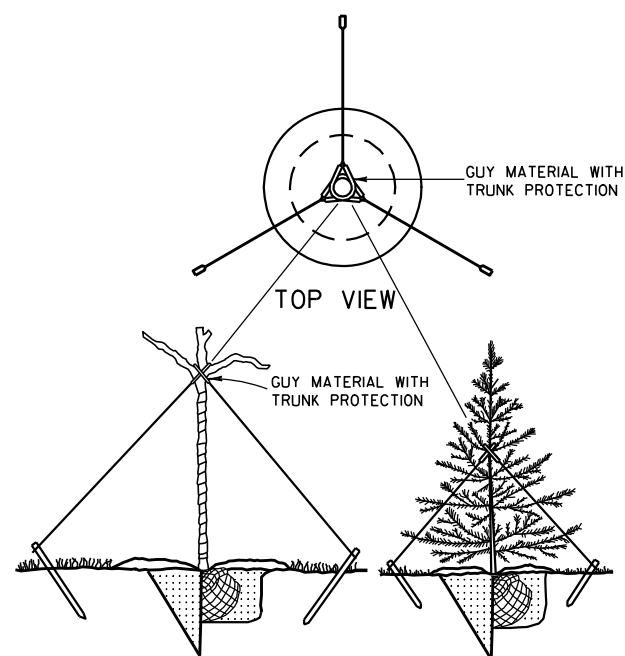
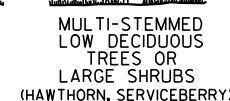
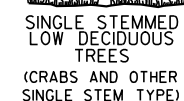
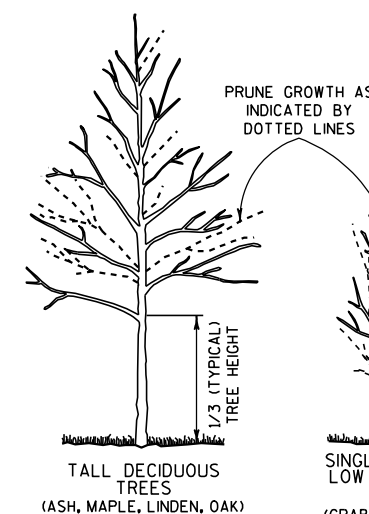
MEASURING



RODENT PROTECTION

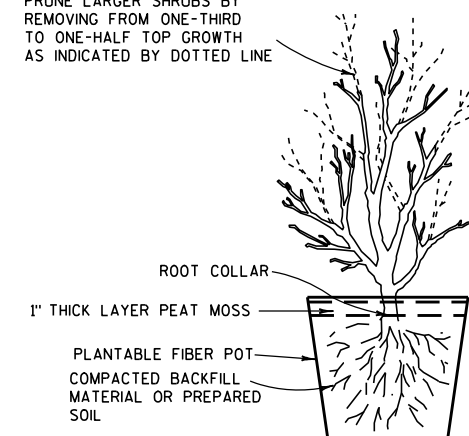


WRAPPING

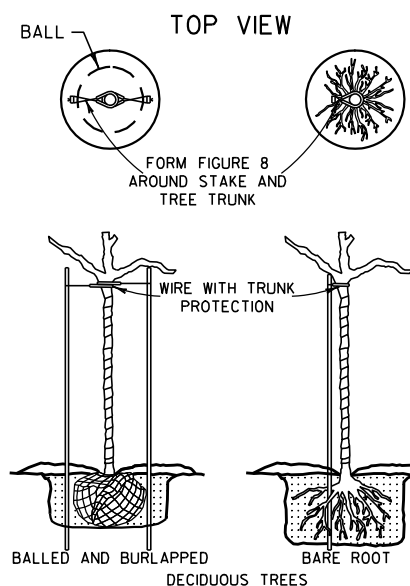


GUYING

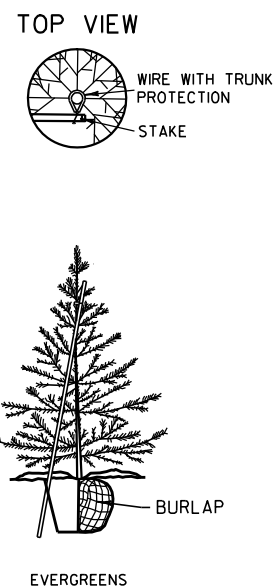
PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING



BRACING



NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

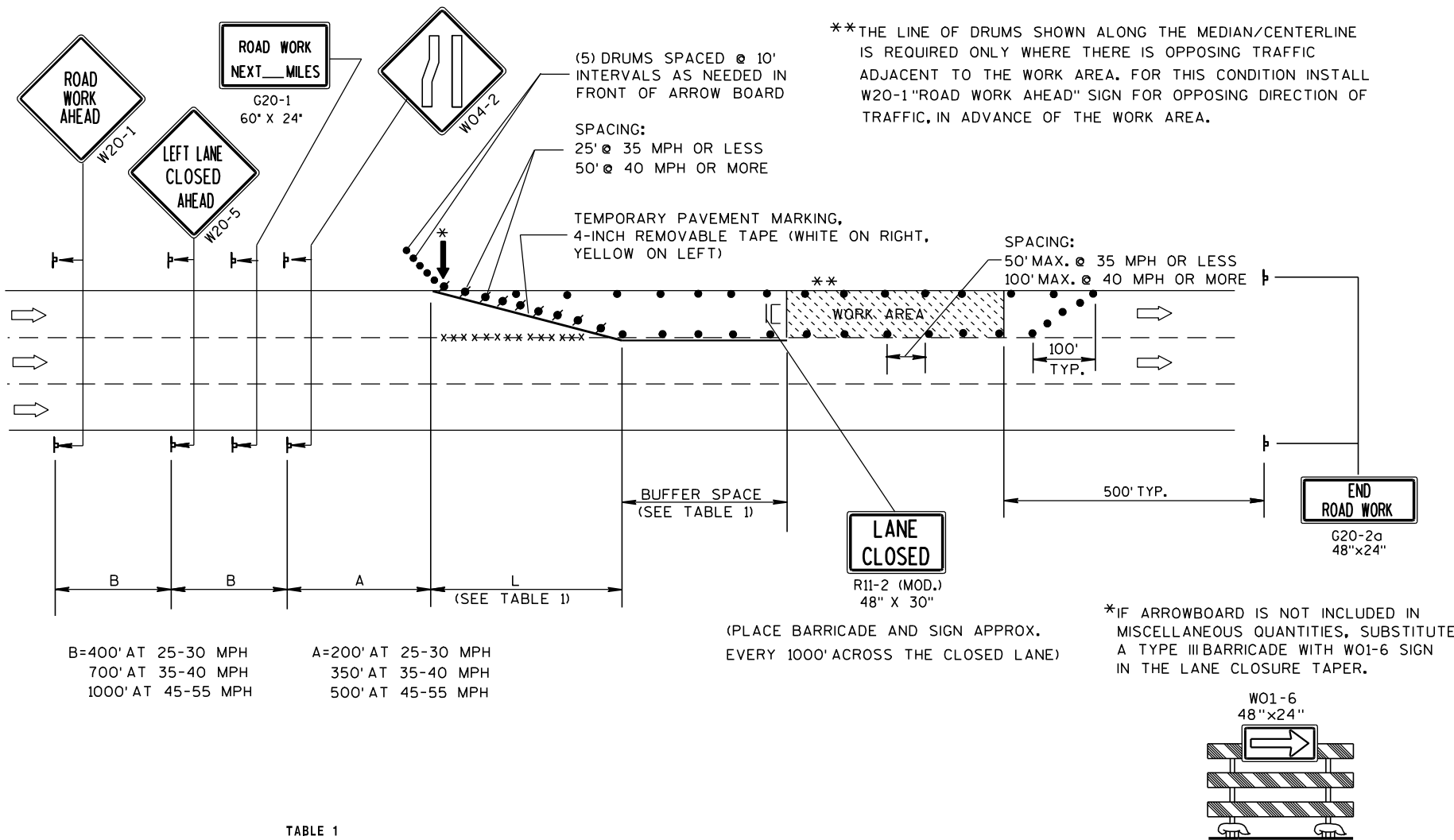
4/11/94

DATE

/S/ Rory L. Rhinesmith

CHIEF METHODS DEVELOPMENT ENGINEER

FHWA



GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

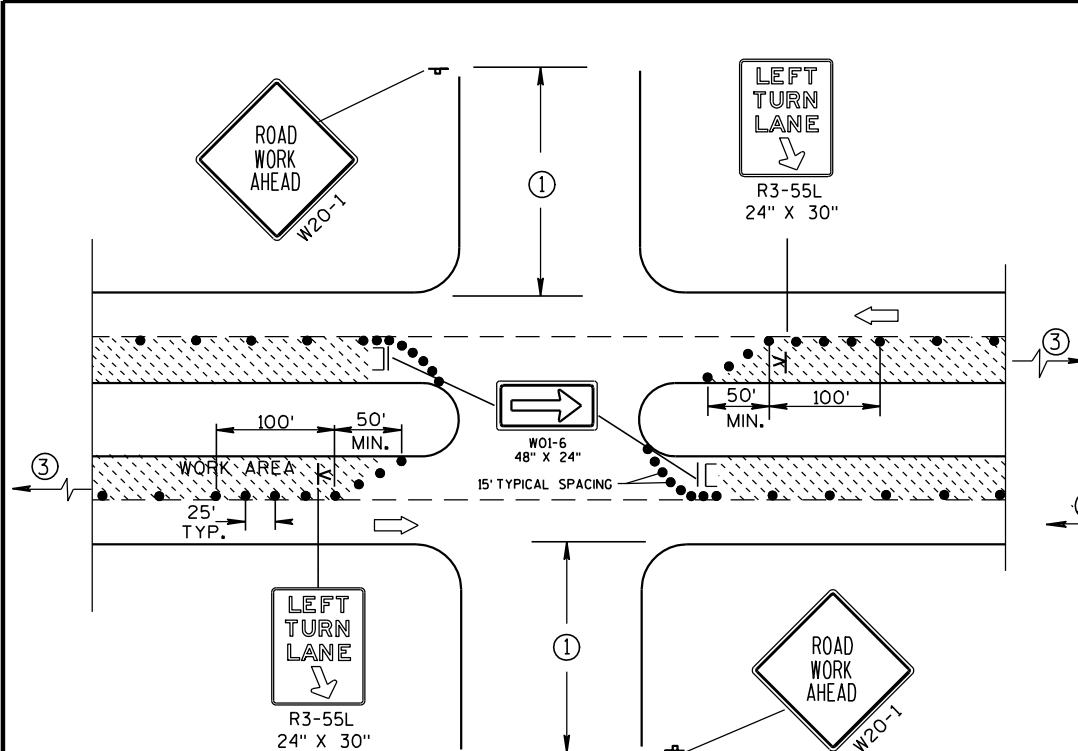
LEGEND

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ↑ ARROW BOARD
- IC/C TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- x x x x REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TRAFFIC CONTROL,
SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

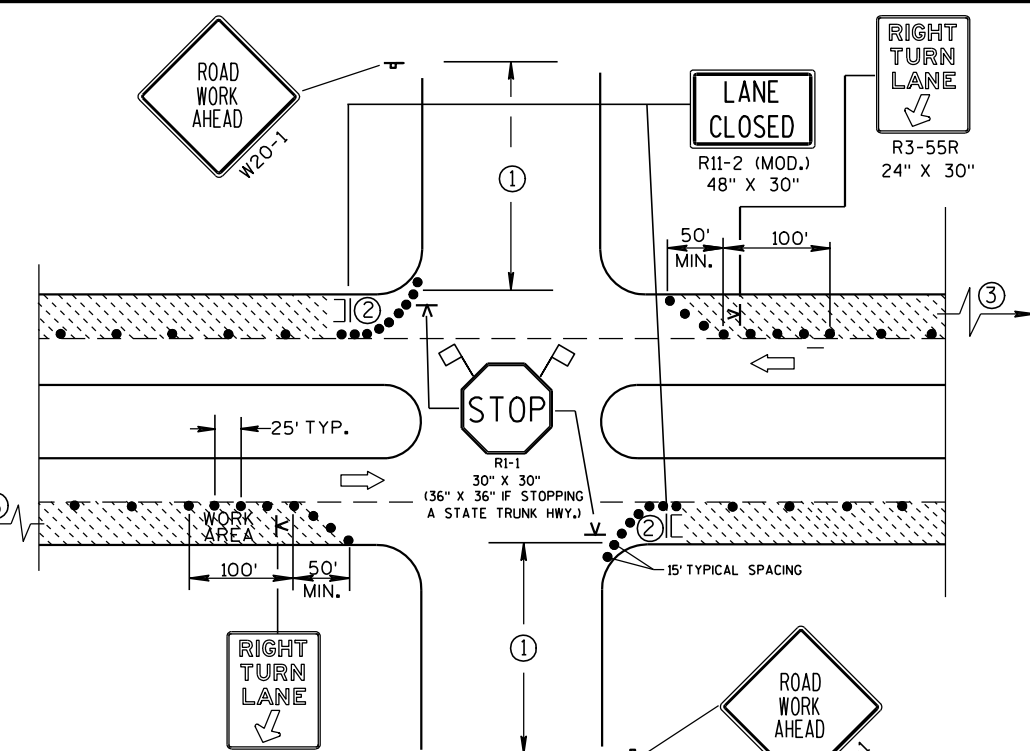
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA



DETAIL A
FOR LEFT LANE CLOSURE AT
INTERSECTION OR MEDIAN OPENING

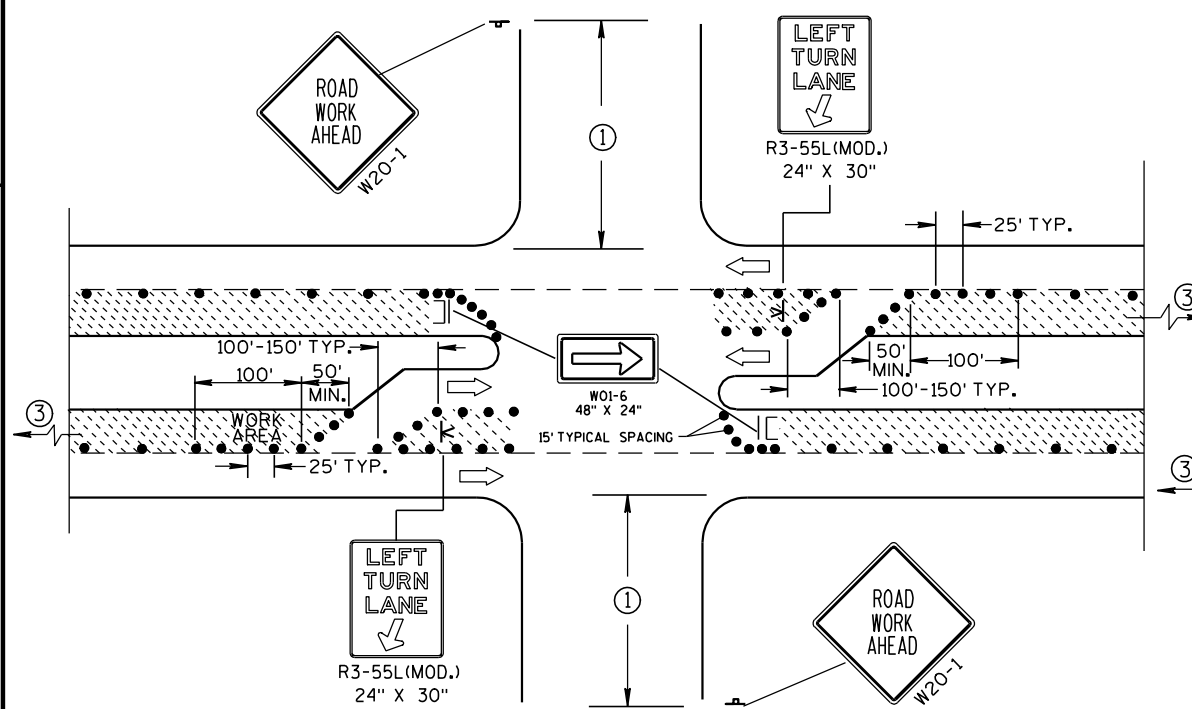
PROVIDE TURN LANES AT
INTERSECTIONS WHENEVER
STAGING OF WORK ALLOWS.
TAPER AND TURN LANE
LENGTHS BASED ON FIELD
CONDITIONS AS APPROVED
BY THE ENGINEER.



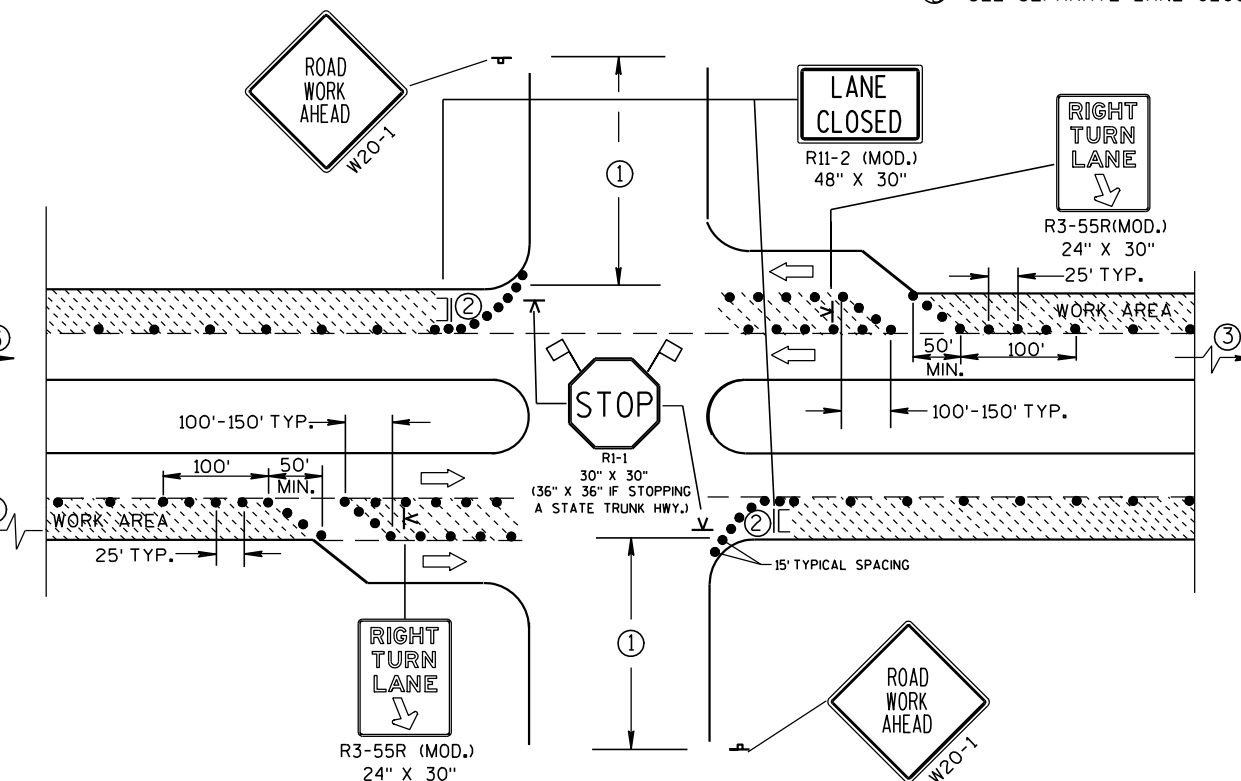
DETAIL B
FOR RIGHT LANE CLOSURE
AT INTERSECTION

GENERAL NOTES

- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.
- BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.
- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.
 - ② ALSO USE BARRICADE AND 15' TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.
 - ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C
FOR LEFT LANE CLOSURE AT INTERSECTION OR
MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D
FOR RIGHT LANE CLOSURE AT INTERSECTION
(WITH RIGHT TURN BAY OPEN)

LEGEND

- DRUM
- ⌄ POST MOUNTED SIGN
- K SIGN ON PORTABLE SUPPORT (5' MIN. MOUNTING HEIGHT)
- || TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHT, TYPE A (FLASHING) WITH SIGN
- ➡ DIRECTION OF TRAFFIC FLOW
- 🚩 FLAGS, 16" X 16" MIN., ORANGE

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/23/00 DATE	/S/ Chester J. Spang CHIEF SIGNS AND MARKING ENGINEER
FHWA	

SYMBOLS

- TRAFFIC CONTROL DRUM
- ┐ POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW
- ⏏ ARROW BOARD IN CAUTION MODE

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

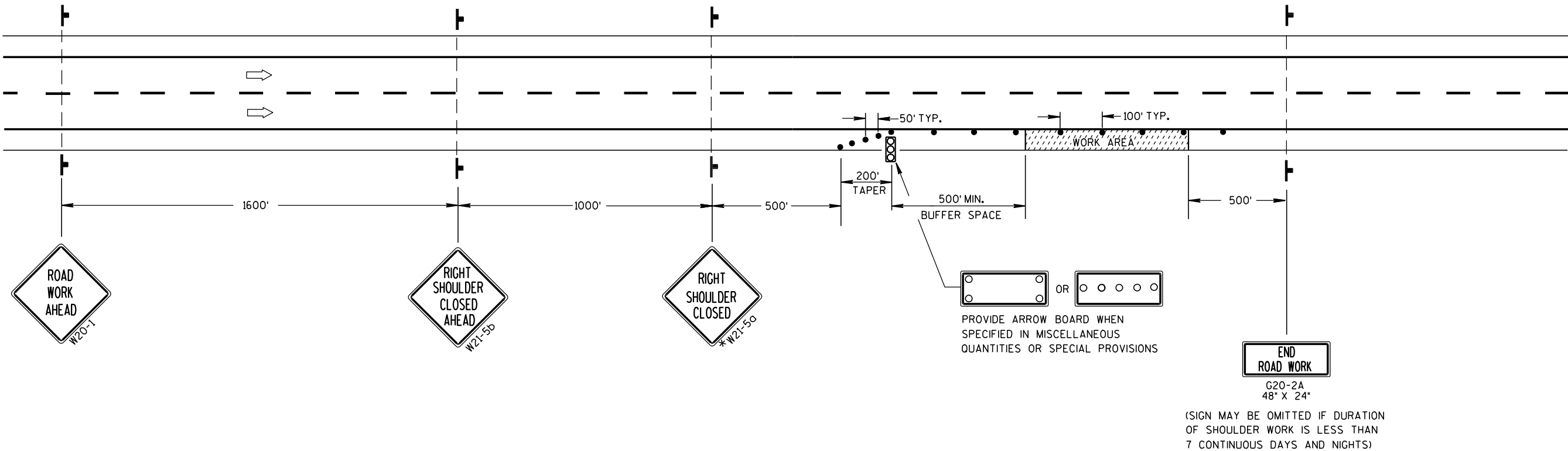
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL
SHOULDER CLOSURE ON DIVIDED
ROADWAY, SPEEDS GREATER
THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

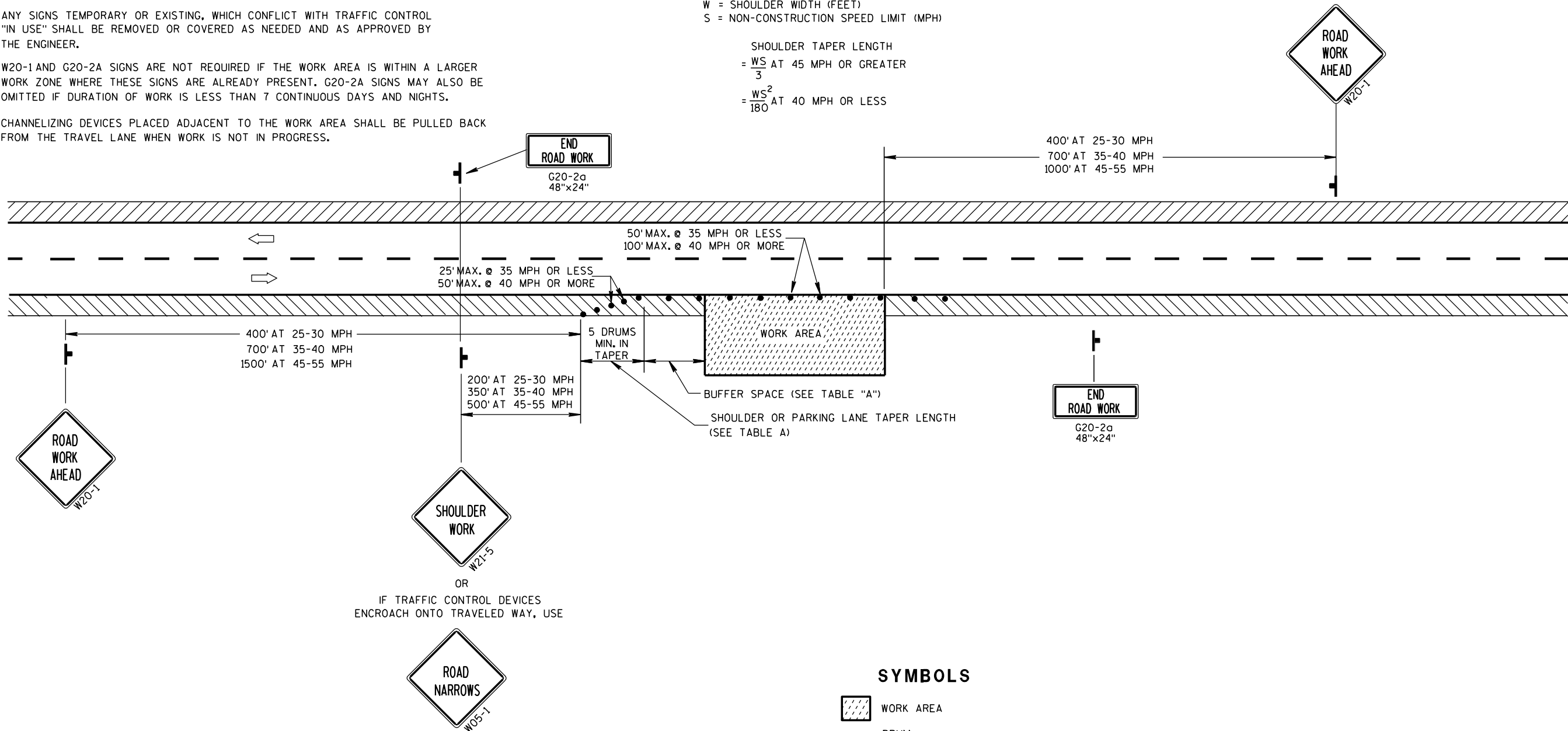
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W		SHOULDER TAPER LENGTH (FEET)				BUFFER SPACE (FEET)
		4	6	8	10	
30	20	30	40	50		85
35	30	45	55	70		120
40	40	55	75	90		170
45	60	90	120	150		220
50	70	100	135	170		280
55	75	110	150	185		335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= $\frac{WS}{3}$ AT 45 MPH OR GREATER
= $\frac{WS^2}{180}$ AT 40 MPH OR LESS



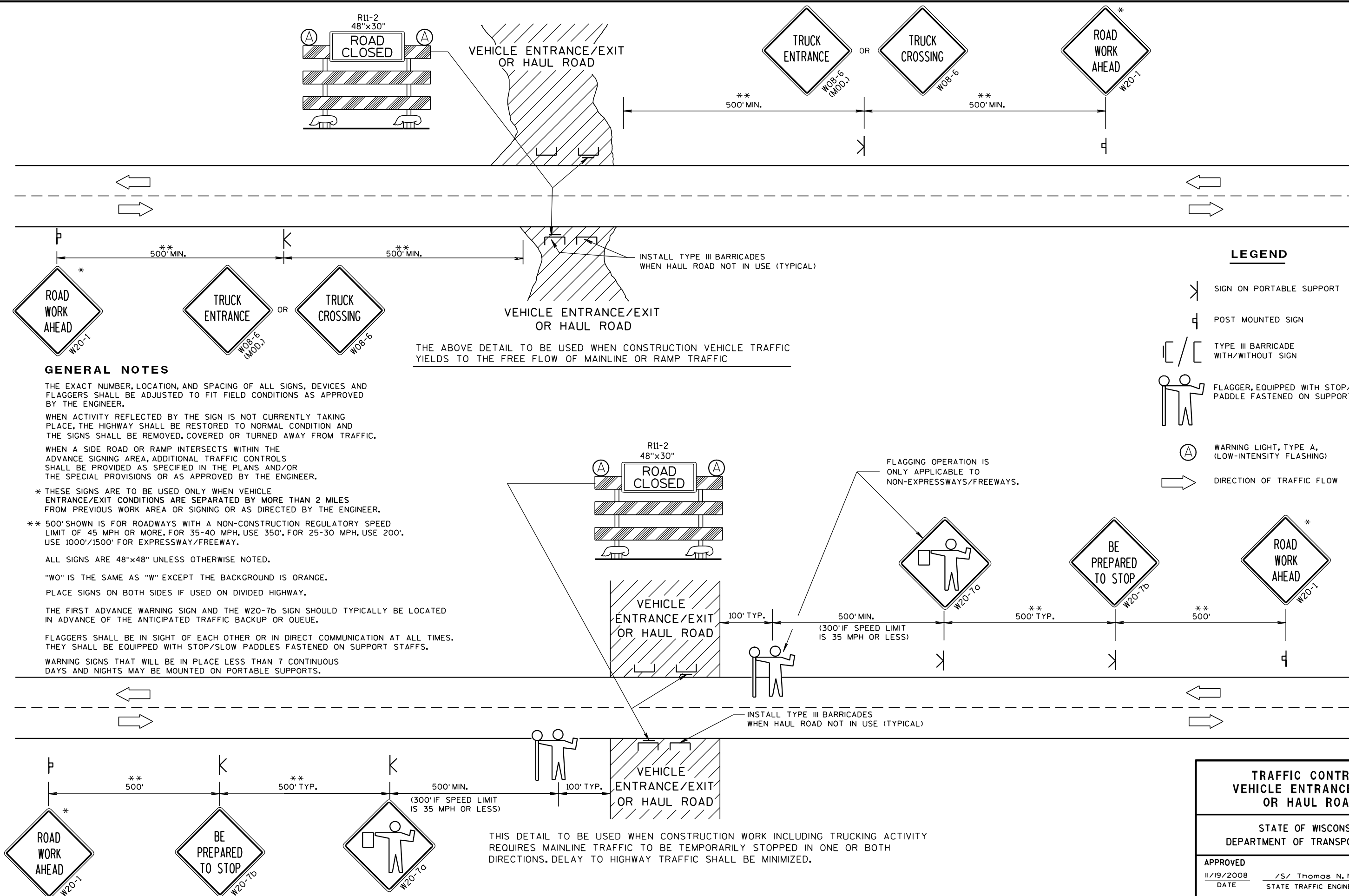
SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL,
WORK ON SHOULDER OR
PARKING LANE,
UNDIVIDED ROADWAY

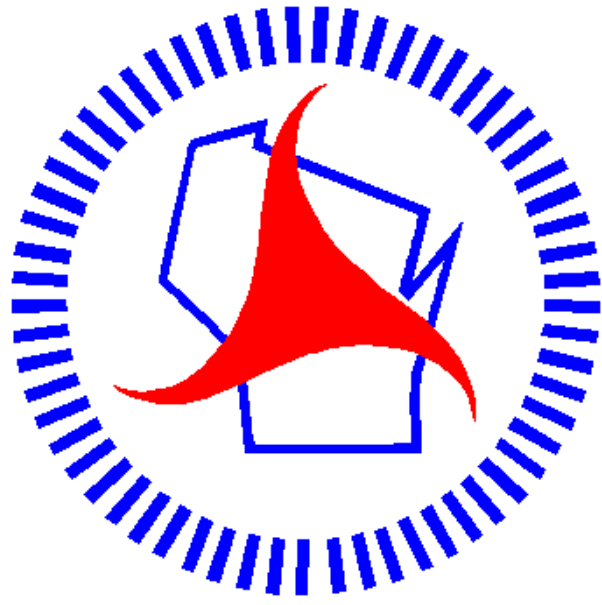
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA



TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/19/2008 DATE	/S/ Thomas N. Notbohm STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>