SILVER OAK DRIVE & NORTH CARSON STREET INTERSECTION IMPROVEMENTS

CARSON CITY, NV

JUNE 2010

CALL BEFORE YOU DIG
DIG ALERT
1-800-227-2600
AVOID CUTTING UTILITY LINES
IT'S COSTLY

GENERAL NOTES:

1 ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2007 EDITION, AND THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION AS ADOPTED BY CARSON CITY.

2 ALL WORK IN NORTH CARSON STREET SHALL CONFORM TO THE STATE OF NEVADA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2001 EDITION AND THE STATE OF NEVADA DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, 2007 EDITION.

3 ALL TRAFFIC CONTROL AND BARRICADING WITHIN CARSON CITY RIGHT-OF-WAY SHALL CONFORM TO SECTION 100.33, 332.04 AND 332.05 OF THE STANDARD SPECIFICATIONS, PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE UNR T2 CENTER TEMPORARY TRAFFIC CONTROL GUIDELINES LATEST EDITION. NO STREET CLOSURES WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF A TRAFFIC CONTROL PLAN BY THE CONSTRUCTION MANAGER.

4 THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT ("CALL BEFORE YOU DIG") AT 1-800-227-2600 AT LEAST 2 WORKING DAYS PRIOR TO START OF CONSTRUCTION, AND COMPLY WITH THE REQUIREMENTS OF NAC CHAPTER 455 - EXCAVATION AND DEMOLITIONS.

5 THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY THESE LOCATIONS AT THE PROPOSED POINTS OF CONNECTIONS AND IN AREAS OF POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION, PRIOR TO BEGINNING CONSTRUCTION. POTHOLING IS REQUIRED. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, HE SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

6 THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF PROPER SHORING OF TRENCHES IN ACCORDANCE WITH OCCUPATIONAL SAFETY LAWS. THE DUTIES OF THE ENGINEER DO NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY IN, ON, OR NEAR THE CONSTRUCTION SITE.

7 SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.

8 THE CONTRACTOR SHALL CALL THE CARSON CITY DEVELOPMENT ENGINEERING DIVISION (887-2300) AT LEAST 2 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

9 MODIFICATIONS TO THE APPROVED PLANS REQUIRES REVIEW AND APPROVAL BY CARSON CITY DEVELOPMENT ENGINEERING DIVISION. WORK PERFORMED WITHOUT WRITTEN APPROVAL BY THE DIVISION WILL REQUIRE REMOVAL AT THE CONTRACTORS EXPENSE.

10 THE APPROVED PLAN, PERMIT AND INSPECTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES.

11 PLAN APPROVAL SHALL EXPIRE ONE YEAR FROM DATE OF APPROVAL UNLESS CONSTRUCTION HAS BEEN INITIATED. (CCMC 12.06.180F,12.01.140D)

12 ALL CLEARING, GRADING OR FILLING OF LAND IS SUBJECT TO SECTION 1803 OF THE 2006 INTERNATIONAL BUILDING CODE, AND NDOT SPECIFICATIONS. ANY CLEARING, GRADING OR FILLING OF LAND OF ONE ACRE OR MORE WILL REQUIRE AN AIR QUALITY PERMIT FROM THE NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION. FOR DISTURBANCES OF FIVE ACRES OR MORE, A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS ALSO REQUIRED FROM NDEP.

ABBREVIATIONS

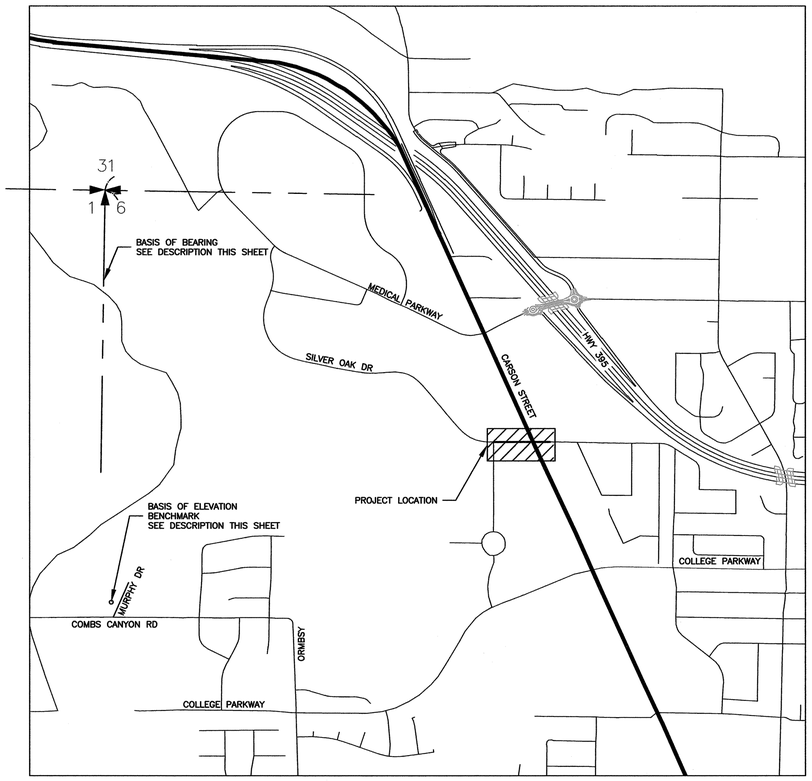
AC	ASPHALT CONCRETE	LP	LOW POINT
AB	AGGREGATE BASE	LT	LEFT
BCR	BEGIN CURB RETURN	MAX	MAXIMUM
BOW	BOTTOM OF WALL	MH	MANHOLE
CC	CORNER CONCRETE	MIN	MINIMUM
C/L	CENTERLINE	N	NORTH
CMP	CORRUGATED METAL PIPE	PCC	PORTLAND CEMENT CONCRETE
COMP	COMPACTION	PIP	PROTECT IN PLACE
CONC	CONCRETE	P/L	PROPERTY LINE
E	EAST	R	RADIUS
ECR	END CURB RETURN	RCB	REINF. CONCRETE BOX
ELEV	ELEVATION	RCP	REINF. CONCRETE PIPE
EP	EDGE OF PAVEMENT	RT	RIGHT
EX	EXISTING	R/W	RIGHT-OF-WAY
BFC	BACK FACE OF CURB	S	SOUTH
FFC	FRONT FACE OF CURB	SD	STORM DRAIN
FG	FINISH GRADE	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSMH	SANITARY SEWER MANHOLE
FL	FLOWLINE	STA	STATION
GB	GRADE BREAK	SW	SIDEWALK
HP	HIGH POINT	TC	TOP OF CURB
IE	INVERT ELEVATION	TP	TOP OF PAVEMENT
L	LENGTH	TW	TOP OF WALL
LF	LINEAL FEET	TYP	TYPICAL
		W	WEST

BASIS OF ELEVATION:

NDOT MONUMENT "406004 M"
ELEVATION = 4984.57' (NGVD29)
.05M ALUM CAP ON REBAR; FLUSH WITH GROUND; STAMPED"406004 1996"; GREEN STEEL WP 1M S. FROM THE JUCTION WITH COMBS CANYON RD GO 103M N ALONG OLD R/R GRADE TO A CONC POST & STATION WHICH IS 24M N OF CONC POST AT THE NE CORNER OF THE BACKYARD FENCE OF A SINGLE STORY HOUSE W OF MURPHY DR.

BASIS OF BEARING:

BASIS OF BEARING
NORTH 00°05'35" EAST BEING THE BEARING OF THE WEST LINE OF SECTION 6, TOWNSHIP 15 NORTH, RANGE 20 EAST, M.D.M. AS SHOWN ON THE FINAL MAP FOR SILVER OAK PHASE 10, RECORDED AS DOCUMENT NO. 222882 IN THE OFFICAIL RECORDS OF CARSON CITY, NEVADA.



VICINITY MAP

NOT TO SCALE
E 1/2 SEC 6
T.15 N., R.20 E., M.D.B. & M.

LEGEND

- 5670 — INDEX CONTOUR
- CONTOUR
- EDGE OF PAVEMENT
- PROPERTY LINE/ RIGHT OF WAY LINE
- CENTER LINE
- E — EXISTING WATER SERVICE
- W — EXISTING WATERLINE
- EXISTING FIRE HYDRANT
- SS — EXISTING SANITARY SEWER
- NEW SANITARY SEWER MANHOLE
- S — EXISTING SANITARY SEWER MANHOLE
- S — NEW SANITARY SEWER LATERAL
- 48.52 TC — GRADE LABEL
- POWER POLES
- TV — EXISTING CABLE TV
- 4"G — EXISTING GAS LINE
- OH/P — EXISTING OVERHEAD POWER
- NEW ASPHALT
- CONCRETE
- TOP OF SLOPE
- TOE OF SLOPE
- GRADE BREAK
- EXISTING GATE VALVE
- SAWCUT LINE
- FENCE
- FLOW LINE/WATER SURFACE ELEVATION
- INTERMITTENT DRAINAGE
- NEW STORMDRAIN
- EXISTING STORMDRAIN
- STORMDRAIN CURB INLET

NORTH

OWNER:

CARSON CITY PUBLIC WORKS DEPARTMENT
3505 BUTTI WAY
CARSON CITY, NEVADA 89701
PHONE: (775) 887-2355

CIVIL ENGINEER:

PALMER ENGINEERING GROUP, LTD
611 NORTH NEVADA STREET
CARSON CITY, NEVADA 89703
PHONE: (775) 884-0479
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SHEET INDEX:

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CITY CONTRACT NO. _____

BID ONLY - NOT FOR CONSTRUCTION

Rev. No.	Revision	Date
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Jun 11 2010

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CARSON CITY PUBLIC WORKS DEPARTMENT

TITLE SHEET

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet T1

JOB #	060705
DESIGN BY:	MS
DRAWN BY:	AA/MS
CHECKED BY:	MP
DATE:	06/01/10
FILE:	060705T.dwg

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Friday, June 11, 2010 - 8:55am

GENERAL NOTES

KEY NOTES

1 THIS EROSION CONTROL PLAN, NOTES AND DETAILS ARE DEVELOPED TO REMAIN EFFECTIVE UNTIL COMPLETION OF ALL CONSTRUCTION WITHIN THE LIMITS SHOWN OR UNTIL PERMANENT GROUND COVER IS ESTABLISHED. ESC MEASURES SHALL BE ADDED OR ADJUSTED THROUGH CONSTRUCTION PHASES AS NECESSARY TO PREVENT SEDIMENT RUNOFF FROM THE SITE.
2 ALL DETAILS SHOWN ON SHEET MAY NOT BE REQUIRED. REFER TO PLAN FOR MINIMUM REQUIREMENTS. REFER TO EROSION SEDIMENTATION CONTROL NOTE No. 3 FOR ADDITIONAL REQUIREMENTS.
3 ANY VEHICLE ENTRANCE/EXIT DESIGNATED ON THE EROSION CONTROL PLAN THAT IS NOT TO BE USED FOR THIS PURPOSE, SHALL BE BLOCKED TO TRAFFIC. INSTALL VEHICLE BARRIERS AT ALL DRIVEWAY APPROACHES NOT TO BE USED AS STABILIZED CONSTRUCTION ENTRANCE.
4 THE FOLLOWING WERE REVIEWED AND DO NOT PERTAIN TO THIS PROJECT:
A.) THERE ARE NO NATURAL RESOURCE SITES, DESIGNATED BUFFER OR OTHER PROTECTED AREAS.
B.) THERE ARE NO BORROW SITES.
C.) THERE ARE NO CONSERVATION ZONES.

EROSION SEDIMENTATION CONTROL NOTES

1 THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED.
2 THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.
3 THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD THESE ESC FACILITIES SHALL BE UPGRADED, AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT LEAVE THE SITE.
4 THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED, AS NECESSARY, TO ENSURE THEIR CONTINUED FUNCTIONING.
5 AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWN STREAM SYSTEM.
6 ALL UTILITY CONNECTIONS MADE OUTSIDE OF THE PROPERTY LINES SHALL MEET ESC REQUIREMENTS. CONTRACTOR SHALL INSTALL SEDIMENT BARRIERS DOWN GRADE OF DISTURBED AREAS AND PROTECT DOWN STREAM STORM WATER INLETS.
7 ALL SEDIMENT BARRIERS WILL REMAIN IN PLACE UNTIL DRAINAGE FACILITIES ARE CONSTRUCTED AND PERMANENT GROUND COVER HAS BEEN REESTABLISHED.

CONCRETE WASH AREA

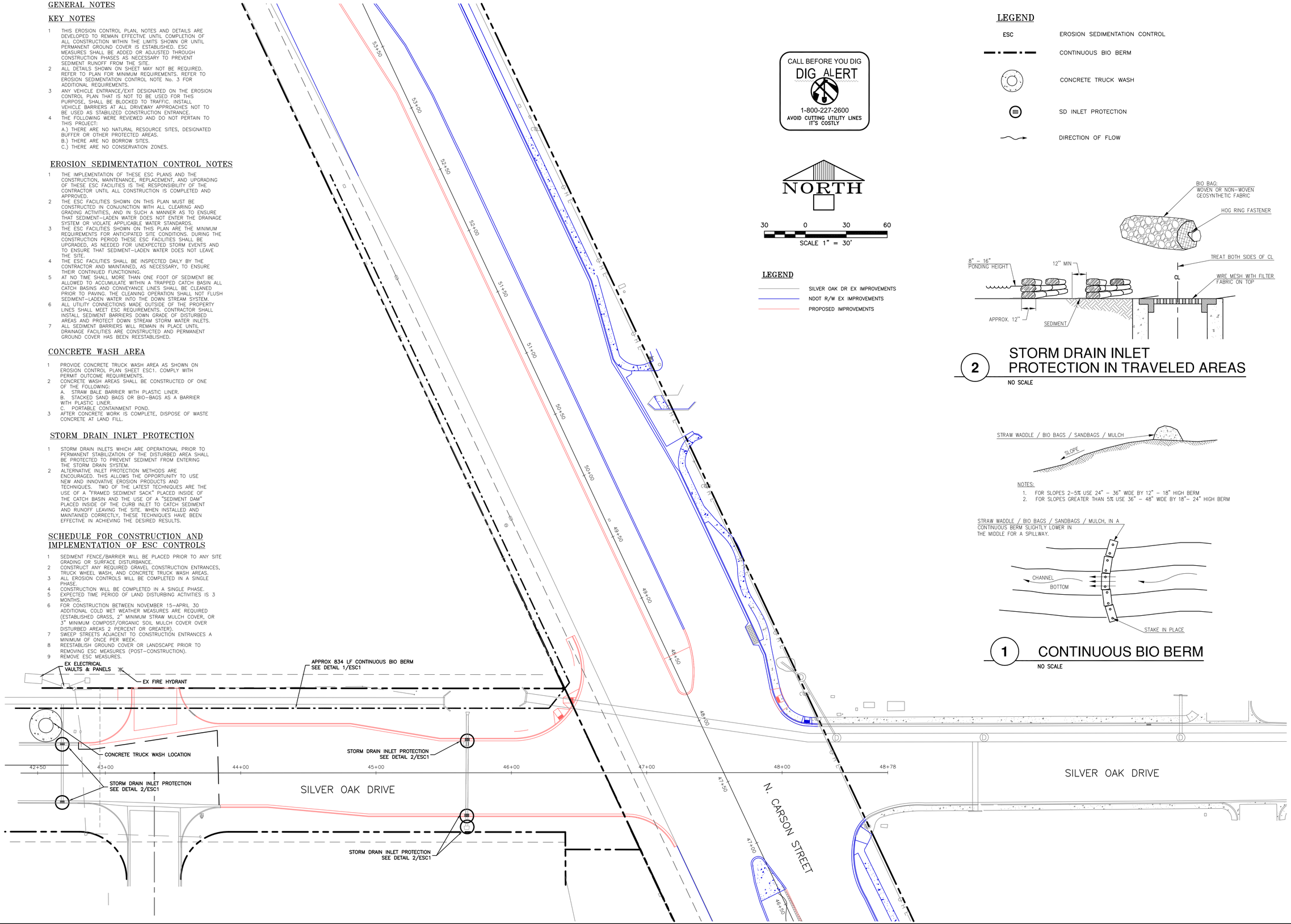
1 PROVIDE CONCRETE TRUCK WASH AREA AS SHOWN ON EROSION CONTROL PLAN SHEET ESC1. COMPLY WITH PERMIT OUTCOME REQUIREMENTS.
2 CONCRETE WASH AREAS SHALL BE CONSTRUCTED OF ONE OF THE FOLLOWING:
A. STRAW BALE BARRIER WITH PLASTIC LINER.
B. STACKED SAND BAGS OR BIO-BAGS AS A BARRIER WITH PLASTIC LINER.
C. PORTABLE CONTAINMENT POND.
3 AFTER CONCRETE WORK IS COMPLETE, DISPOSE OF WASTE CONCRETE AT LAND FILL.

STORM DRAIN INLET PROTECTION

1 STORM DRAIN INLETS WHICH ARE OPERATIONAL PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA SHALL BE PROTECTED TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM.
2 ALTERNATIVE INLET PROTECTION METHODS ARE ENCOURAGED. THIS ALLOWS THE OPPORTUNITY TO USE NEW AND INNOVATIVE EROSION PRODUCTS AND TECHNIQUES. TWO OF THE LATEST TECHNIQUES ARE THE USE OF A "FRAMED SEDIMENT SACK" PLACED INSIDE OF THE CATCH BASIN AND THE USE OF A "SEDIMENT DAM" PLACED INSIDE OF THE CURB INLET TO CATCH SEDIMENT AND RUNOFF LEAVING THE SITE. WHEN INSTALLED AND MAINTAINED CORRECTLY, THESE TECHNIQUES HAVE BEEN EFFECTIVE IN ACHIEVING THE DESIRED RESULTS.

SCHEDULE FOR CONSTRUCTION AND IMPLEMENTATION OF ESC CONTROLS

1 SEDIMENT FENCE/BARRIER WILL BE PLACED PRIOR TO ANY SITE GRADING OR SURFACE DISTURBANCE.
2 CONSTRUCT ANY REQUIRED GRAVEL CONSTRUCTION ENTRANCES, TRUCK WHEEL WASH, AND CONCRETE TRUCK WASH AREAS.
3 ALL EROSION CONTROLS WILL BE COMPLETED IN A SINGLE PHASE.
4 CONSTRUCTION WILL BE COMPLETED IN A SINGLE PHASE.
5 EXPECTED TIME PERIOD OF LAND DISTURBING ACTIVITIES IS 3 MONTHS.
6 FOR CONSTRUCTION BETWEEN NOVEMBER 15-APRIL 30 ADDITIONAL COLD WET WEATHER MEASURES ARE REQUIRED (ESTABLISHED GRASS, 2" MINIMUM STRAW MULCH COVER, OR 3" MINIMUM COMPOST/ORGANIC SOIL MULCH COVER OVER DISTURBED AREAS 2 PERCENT OR GREATER).
7 SWEEP STREETS ADJACENT TO CONSTRUCTION ENTRANCES A MINIMUM OF ONCE PER WEEK.
8 REESTABLISH GROUND COVER OR LANDSCAPE PRIOR TO REMOVING ESC MEASURES (POST-CONSTRUCTION).
9 REMOVE ESC MEASURES.



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NORTH

30 0 30 60
SCALE 1" = 30'

LEGEND

SILVER OAK DR EX IMPROVEMENTS
NDOT R/W EX IMPROVEMENTS
PROPOSED IMPROVEMENTS

LEGEND

ESC EROSION SEDIMENTATION CONTROL
CONTINUOUS BIO BERM
CONCRETE TRUCK WASH
SD INLET PROTECTION
DIRECTION OF FLOW

2 STORM DRAIN INLET PROTECTION IN TRAVELED AREAS
NO SCALE

NOTES:
1. FOR SLOPES 2-5% USE 24" - 36" WIDE BY 12" - 18" HIGH BERM
2. FOR SLOPES GREATER THAN 5% USE 36" - 48" WIDE BY 18"- 24" HIGH BERM

1 CONTINUOUS BIO BERM
NO SCALE

Rev. No.	Revision	Date
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REGISTERED PROFESSIONAL ENGINEER
W. MICHAEL STEPHENSON
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CARSON CITY PUBLIC WORKS DEPARTMENT

EROSION CONTROL PLAN

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet ESC1

JOB #	060705
DESIGN BY:	MS
DRAWN BY:	AA/MS
CHECKED BY:	MP
DATE:	06/01/10
FILE:	060705MN.dwg

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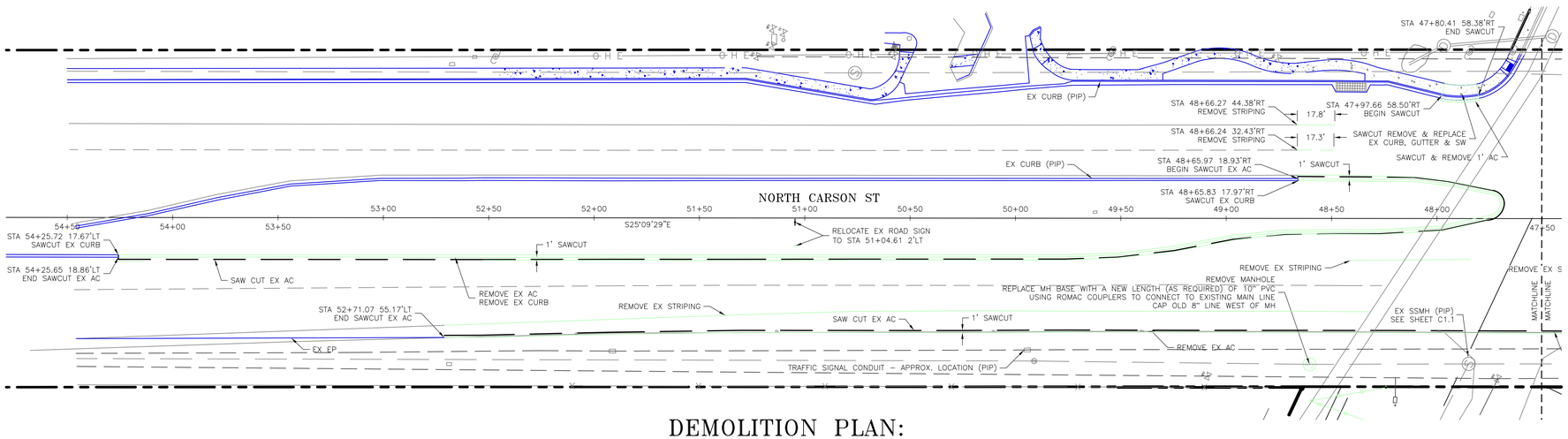


DEMOLITION PLAN:
NORTH CARSON STREET (STA: 47+50 – 54+50)

NORTH

30 0 30 60

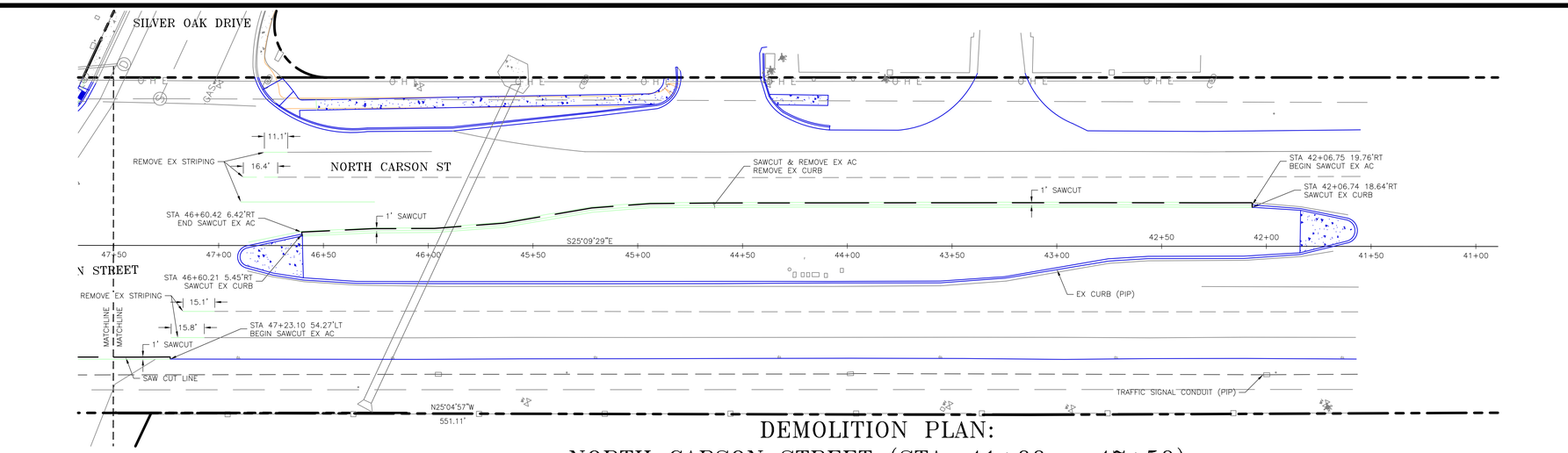
SCALE: 1" = 30'

LEGEND

- SILVER OAK DR EX IMPROVEMENTS
- N. CARSON STREET R/W EX IMPROVEMENTS
- DEMO, TO BE REMOVED

SPECIAL NOTES:

ALL STATIONING AND DIMENSIONS TO THE FRONT FACE OF CURB UNLESS OTHERWISE NOTED.
EXISTING STRIPING SHOWN TO BE REMOVED SHALL BE COMPLETELY ERADICATED BY GRINDING.



DEMOLITION PLAN:
NORTH CARSON STREET (STA: 41+00 – 47+50)

NORTH

30 0 30 60

SCALE: 1" = 30'

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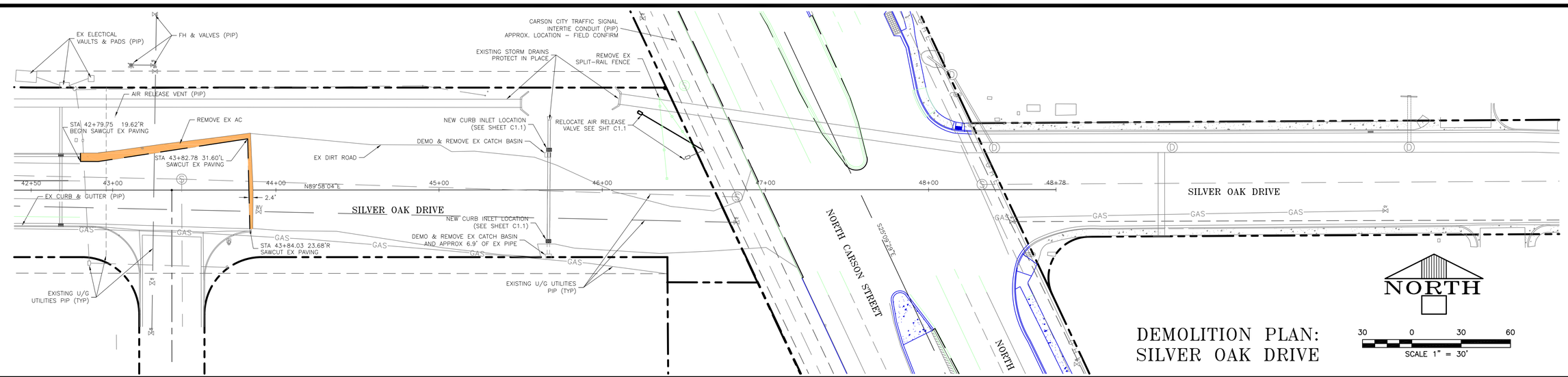

DEMOLITION PLAN:
SILVER OAK DRIVE

NORTH

30 0 30 60

SCALE 1" = 30'

No.	Revision	Date
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CARSON CITY PUBLIC WORKS DEPARTMENT

DEMOLITION PLAN

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet	C1.0
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DESIGN BY:	MS
DRAWN BY:	AA/MS
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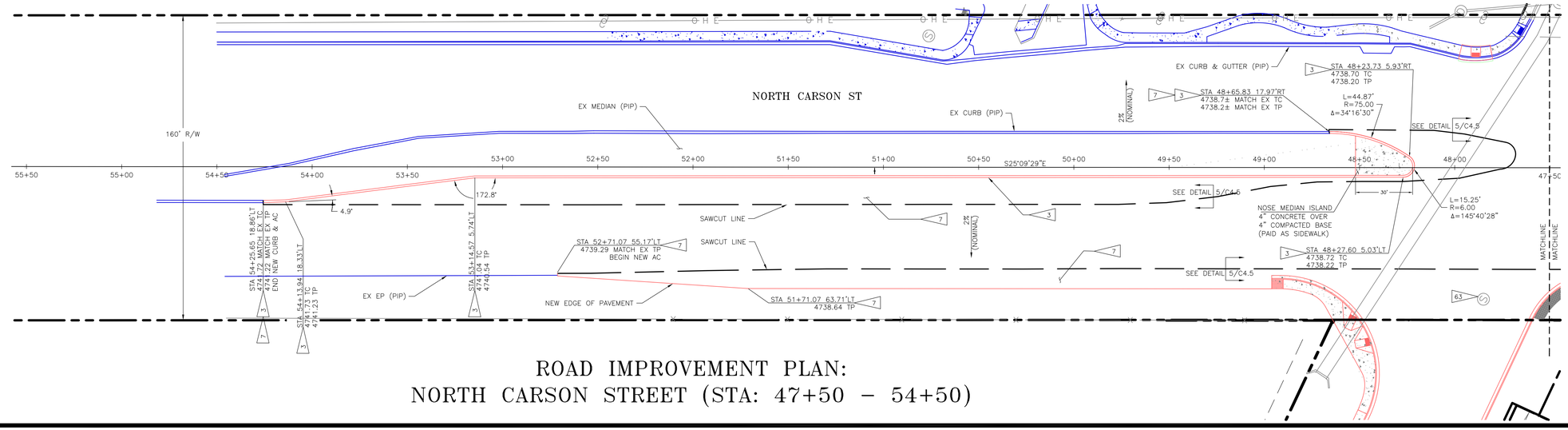

ROAD IMPROVEMENT PLAN: NORTH CARSON STREET (STA: 47+50 – 54+50)

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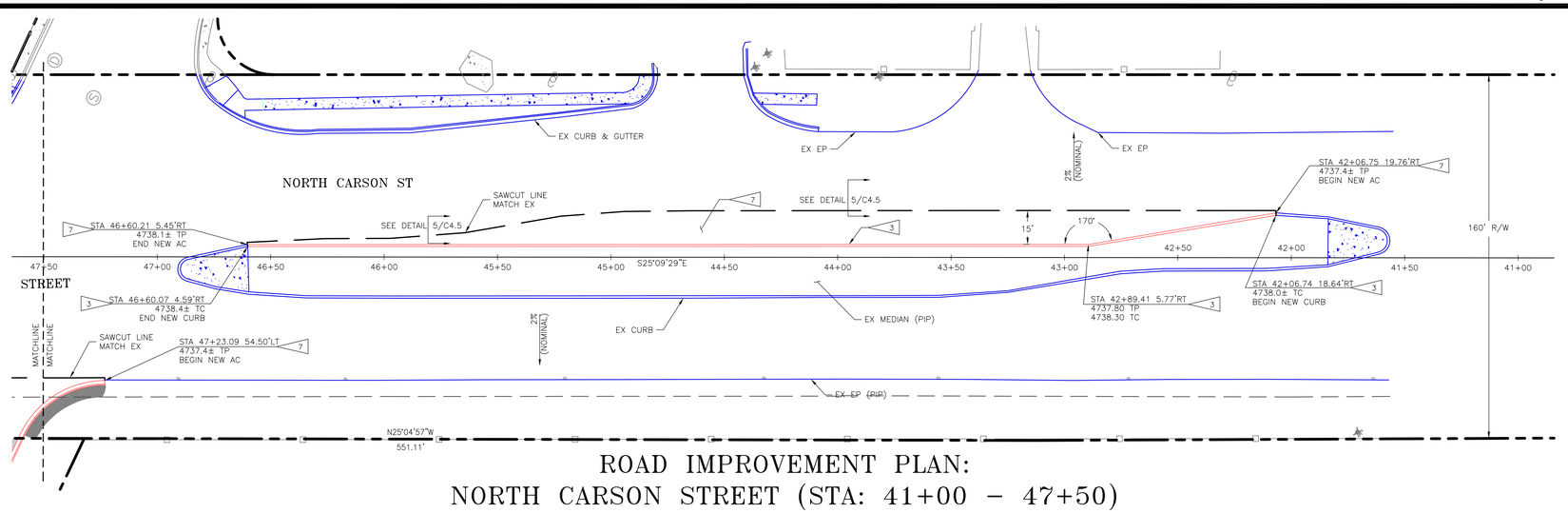
IT'S COSTLY

NORTH

30 0 30 60
SCALE: 1" = 30'



CONSTRUCTION NOTES

1 CONSTRUCT TYPE 1 PCC CURB & GUTTER (DETAIL 5/C4.3)

3 CONSTRUCT TYPE 3 PCC CURB (DETAIL 2/C4.1)
4 CONSTRUCT TYPE "A" SIDEWALK (DETAIL 8/C4.3)

6 CONSTRUCT 3" MIN. DEPTH TYPE 2 AC OVER 9" MIN. DEPTH TYPE 2 CLASS B AGGREGATE BASE
7 CONSTRUCT 6" MIN. DEPTH TYPE 2 AC OVER 16" MIN. DEPTH TYPE 2 CLASS B AGGREGATE BASE (PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT)
8 SAWCUT, REMOVE AND REPLACE EXISTING PAVEMENT (DETAIL 6/C4.3)
9 CONSTRUCT PCC VALLEY GUTTER & DRIVEWAY SPANDREL (4/C4.3)
10 CONSTRUCT PEDESTRIAN RAMP FOR THE DISABLED (TYPE A – DETAIL 1/C4.1)
11 CONSTRUCT PEDESTRIAN RAMP FOR THE DISABLED (DETAIL 2/C4.4)
12 CONSTRUCT 5' WIDE x 4" THICK GRAVEL PATH; TOP OF PATH 6" BELOW TOP OF CURB
13 CONSTRUCT CURB TRANSITION (DETAIL 6/C4.5)

20 CONSTRUCT TYPE 7 STREET LIGHT (DETAILS 2–4/C4.5)
21 RELOCATE AIR RELEASE VALVE (DETAIL 1/C4.3)

60 CONSTRUCT TYPE 4R CURB INLET (DETAIL 1/4.5)
61 CONSTRUCT 6" SCH 40 PVC PIPE W/ END CAPS FOR IRRIGATION LINES; SET 4" BELOW SIDEWALK
62 CONSTRUCT 18" RCP CLASS IV SD PIPE, APPROX. 5 LF TO PATCH SECTION WHERE EX CB WAS REMOVED (NO DIRECT PAMENT)
63 ADJUST EXISTING SEWER MANHOLE TO FINISH GRADE (DETAIL 4/C4.2)
64 ADJUST EXISTING WATER VALVE TO FINISH GRADE (DETAIL 6/C4.2)

SPECIAL NOTES:

ALL STATIONING AND DIMENSIONS TO THE FRONT FACE OF CURB UNLESS OTHERWISE NOTED.
ALL PCC CURBS AND GUTTERS SHALL BE UNDERLAIN WITH 6" TYPE 2 AGGREGATE BASE COMPACTED TO 95% MDD.

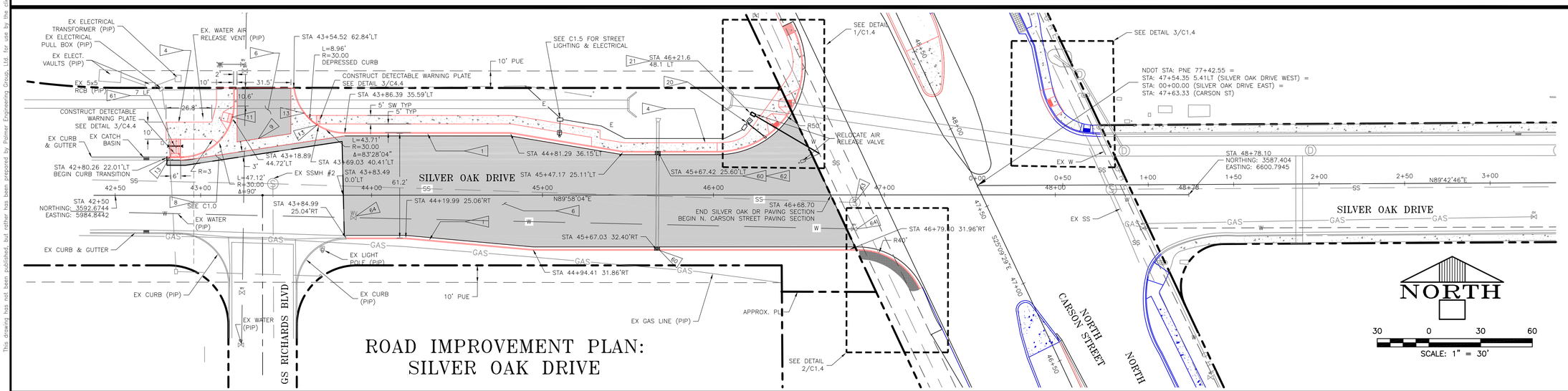
LEGEND

SILVER OAK DR EX IMPROVEMENTS
NO. CARSON STREET EX IMPROVEMENTS
PROPOSED IMPROVEMENTS
DEPRESSED CURB

NORTH

30 0 30 60
SCALE: 1" = 30'

ROAD IMPROVEMENT PLAN: NORTH CARSON STREET (STA: 41+00 – 47+50)



ROAD IMPROVEMENT PLAN: SILVER OAK DRIVE

NORTH

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SCALE: 1" = 30'

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REGISTERED PROFESSIONAL ENGINEER
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CARSON CITY PUBLIC WORKS DEPARTMENT

ROAD IMPROVEMENT PLAN

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet	C1.1
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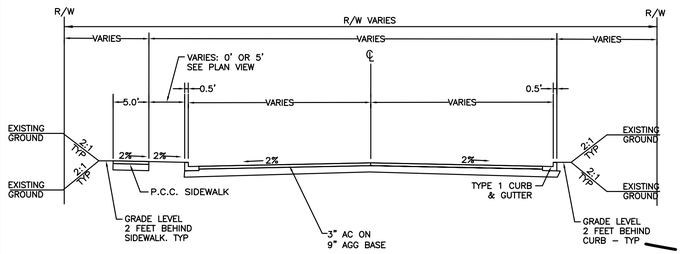


① TYPICAL SECTION

NORTH

30 0 30 60

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'

LEGEND

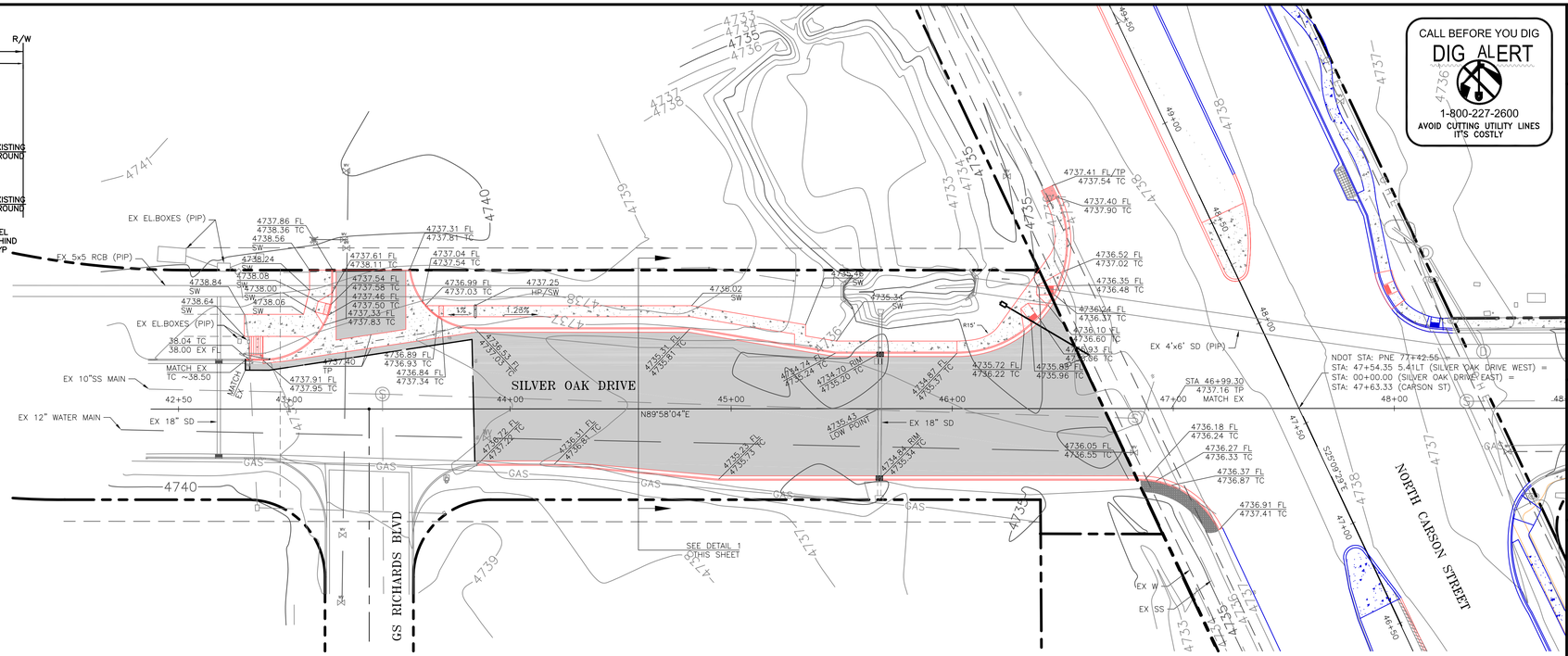
- SILVER OAK DR EX IMPROVEMENTS
- N. CARSON STREET R/W EX IMPROVEMENTS
- PROPOSED IMPROVEMENTS

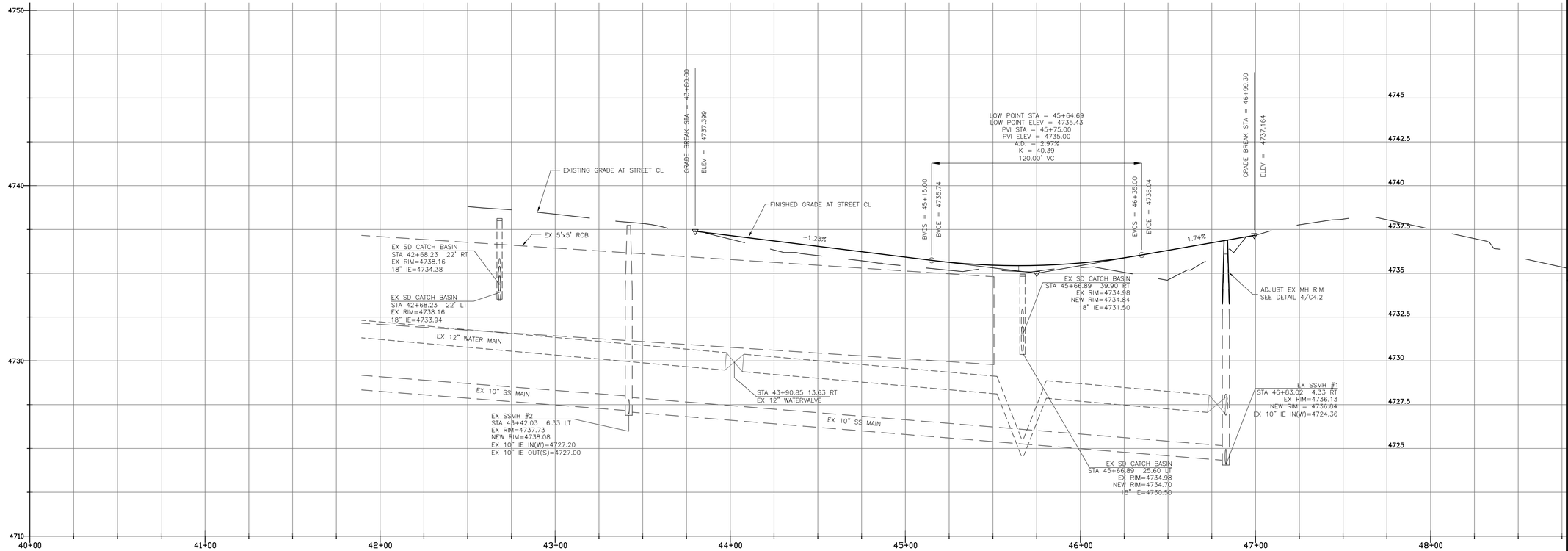
GENERAL NOTE:

ALL EXISTING STRUCTURE LIDS SHALL BE ADJUSTED TO NEW FINISHED GRADES.

SPECIAL NOTE:

ALL STATIONING AND DIMENSIONS TO THE FRONT FACE OF CURB UNLESS OTHERWISE NOTED.





PLAN & PROFILE
SILVER OAK DRIVE

Palmer Engineering Group, Ltd.
611 N. Nevada Street
Carson City, Nevada 89703
Phone (775) 884-0479
Fax (775) 884-4226
www.palmer-eng.com

RESIGNED PROFESSIONAL ENGINEER
W. MICHAEL STEPHENSON
Exp. 06-30-12
CIVIL
5755
STATE OF NEVADA
Jun 09 2010

CARSON CITY PUBLIC WORKS DEPARTMENT

STA 42+50 TO 47+57.03
PLAN AND PROFILE

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet C1.2

JOB #	060705
DESIGN BY:	MS
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DATE:	06/01/10
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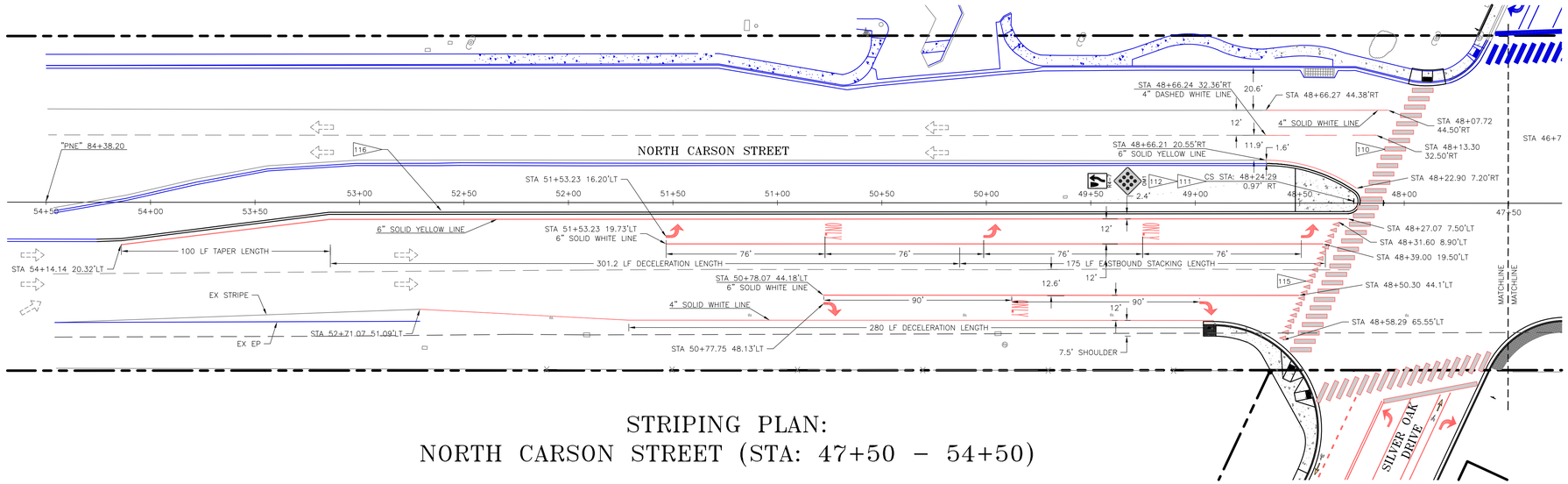
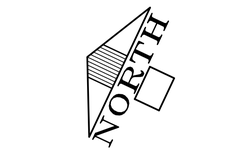
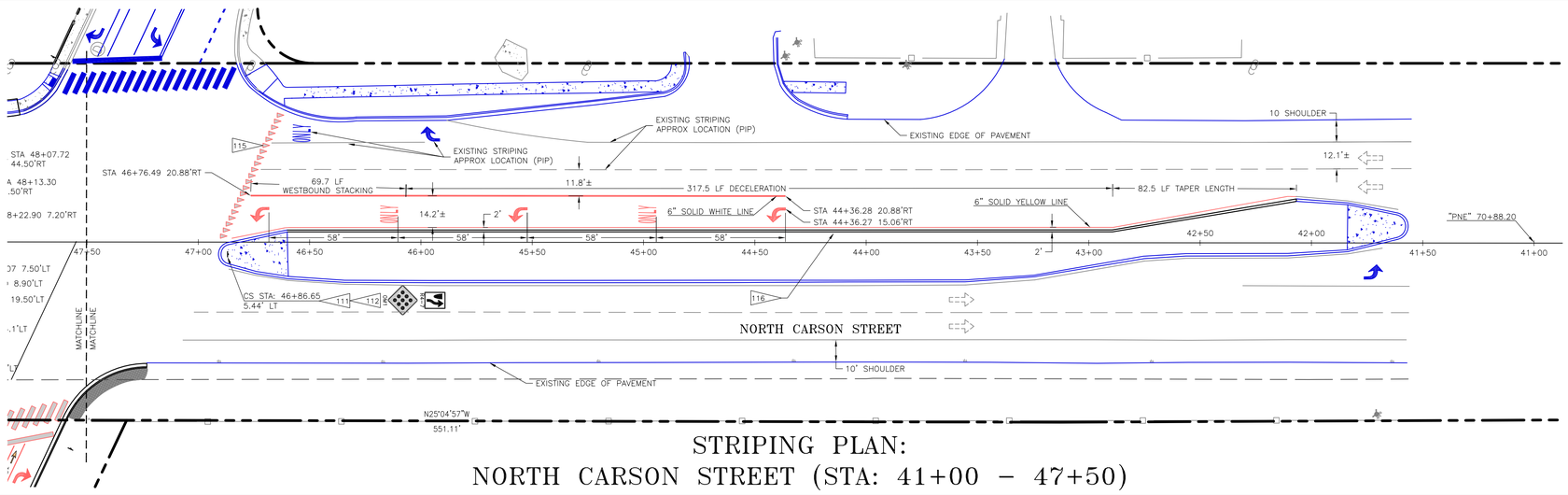


STRIPING PLAN:
NORTH CARSON STREET (STA: 47+50 – 54+50)





STRIPING PLAN:
NORTH CARSON STREET (STA: 41+00 – 47+50)

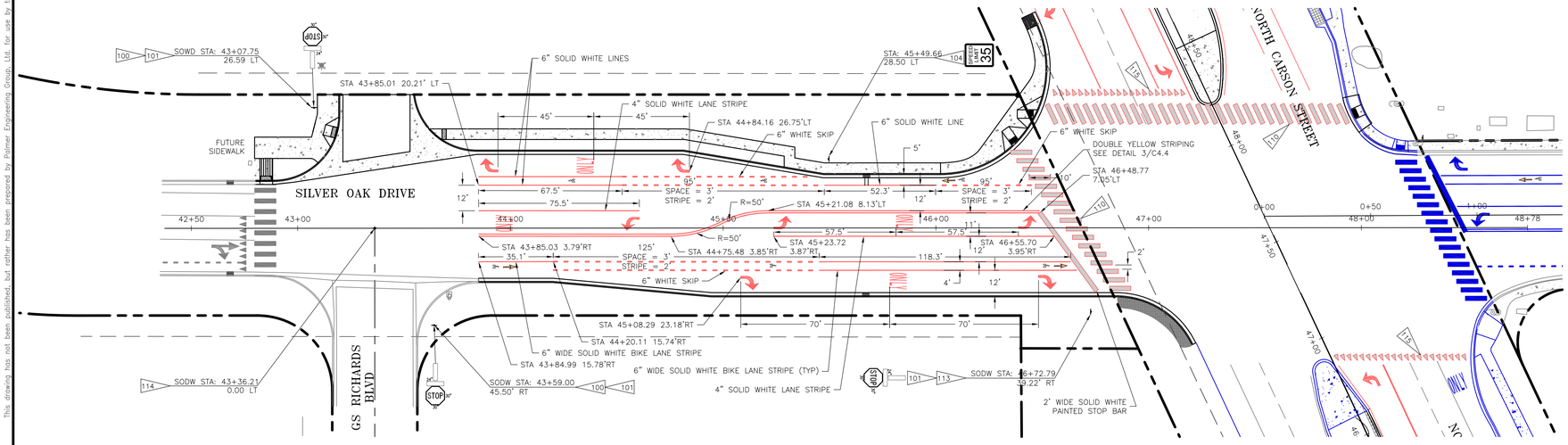
LEGEND

- SILVER OAK DR EX IMPROVEMENTS
- N. CARSON STREET R/W EX IMPROVEMENTS
- PROPOSED IMPROVEMENTS

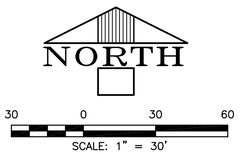
NOTE:
ALL STRIPING AND SIGNAGE CALLOUTS PER MUTCD MANUAL

CONSTRUCTION NOTES

100 CONSTRUCT CUSTOM STOP SIGN SUPPORT BACKET (DETAIL 2/C4.2)
101 CONSTRUCT STREET NAME SIGN (DETAIL 5/C4.4)
104 CONSTRUCT SIGN R2-1 (SPEED LIMIT – 35 MPH)
110 STRIPING (DETAIL 1/C4.2)
111 CONSTRUCT SIGN R4-7 (KEEP RIGHT)
112 CONSTRUCT SIGN (OM1-1 TYPE 1 OBJECT MARKER) (DETAIL 4/C4.1)
113 CONSTRUCT STANDARD STREET SIGN (DETAIL 6/C4.4)
114 CONSTRUCT SURVEY MONUMENT (SEE DETAIL 8/C4.4)
115 CONSTRUCT YIELD MARKERS (DETAIL 7/C4.4)
116 CONSTRUCT FLEXIBLE POST REFLECTORS – MATCH EXISTING (DETAIL 3/C4.1)



STRIPING PLAN:
SILVER OAK DRIVE



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Carson City, Nevada 89703
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REGISTERED PROFESSIONAL ENGINEER
STATE OF NEVADA
W. MICHAEL STEPHENSON
Exp. 06-30-12
CIVIL
5755
Jun 09 2010

CARSON CITY PUBLIC WORKS DEPARTMENT

STRIPING & SIGNAGE PLAN

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet C1.3

JOB #	060705
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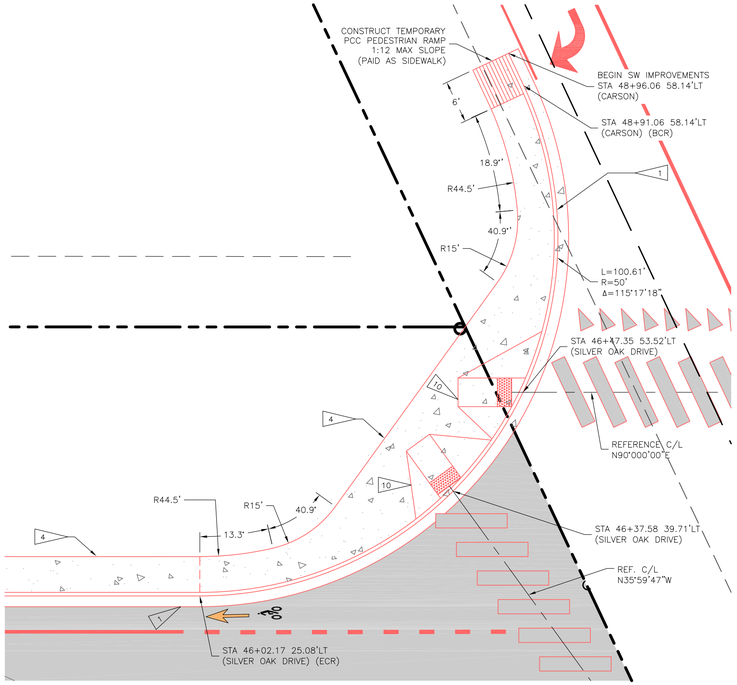
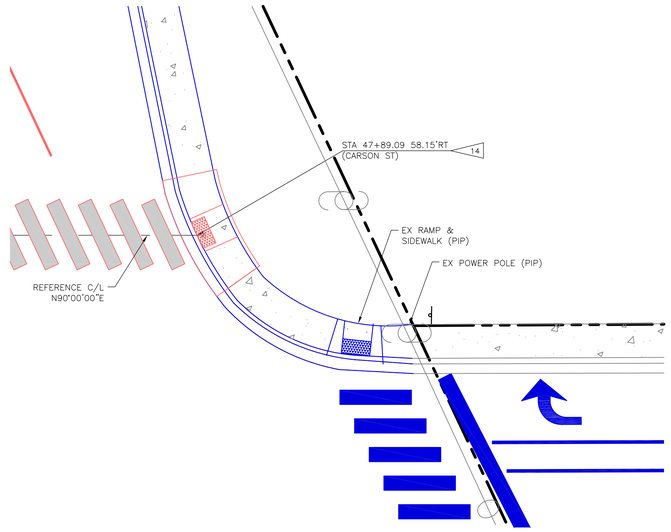
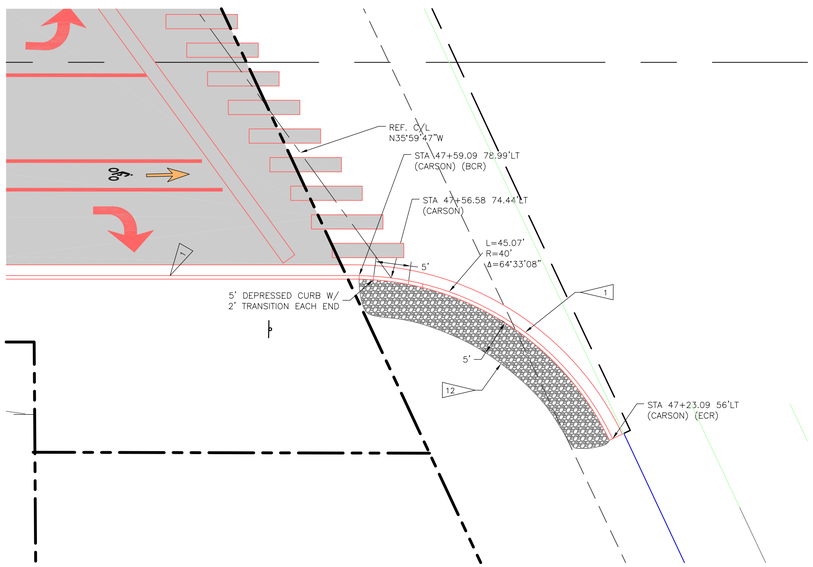


1 NORTHWEST CORNER



3 NORTHEAST CORNER



2 SOUTHWEST CORNER

NORTH

10 0 10 20

SCALE: 1" = 10'

CONSTRUCTION NOTES

1 CONSTRUCT TYPE 1 PCC CURB & GUTTER (DETAIL 5/C4.3)

3 CONSTRUCT TYPE 3 PCC CURB (DETAIL 2/C4.1)
4 CONSTRUCT TYPE "A" SIDEWALK (DETAIL 8/C4.3)

6 CONSTRUCT 3" MIN. DEPTH TYPE 2 AC OVER 9" MIN. DEPTH TYPE 2 CLASS B AGGREGATE BASE
7 CONSTRUCT 6" MIN. DEPTH TYPE 2 AC OVER 16" MIN. DEPTH TYPE 2 CLASS B AGGREGATE BASE (PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT)
8 SAWCUT, REMOVE AND REPLACE EXISTING PAVEMENT (DETAIL 6/C4.3)
9 CONSTRUCT PCC VALLEY GUTTER & DRIVEWAY SPANDREL (4/C4.3)
10 CONSTRUCT PEDESTRIAN RAMP FOR THE DISABLED (TYPE A – DETAIL 1/C4.1)
11 CONSTRUCT PEDESTRIAN RAMP FOR THE DISABLED (DETAIL 2/C4.4)
12 CONSTRUCT 5' WIDE x 4" THICK GRAVEL PATH; TOP OF PATH 6" BELOW TOP OF CURB
13 CONSTRUCT CURB TRANSITION (DETAIL 6/C4.5)
14 CONSTRUCT PEDESTRIAN RAMP FOR THE DISABLED (DETAIL 3/C4.4)

SPECIAL NOTE:

ALL STATIONING AND DIMENSIONS TO THE FRONT FACE OF CURB UNLESS OTHERWISE NOTED.

LEGEND

SILVER OAK DR EX IMPROVEMENTS
EX IMPROVEMENTS
PROPOSED IMPROVEMENTS

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REGISTERED PROFESSIONAL ENGINEER
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Jun 09 2010

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www.palmer-eng.com

CARSON CITY PUBLIC WORKS DEPARTMENT

SILVER OAK DR & N. CARSON ST.
INTERSECTION DETAILS

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet	C1.4
JOB #	060705
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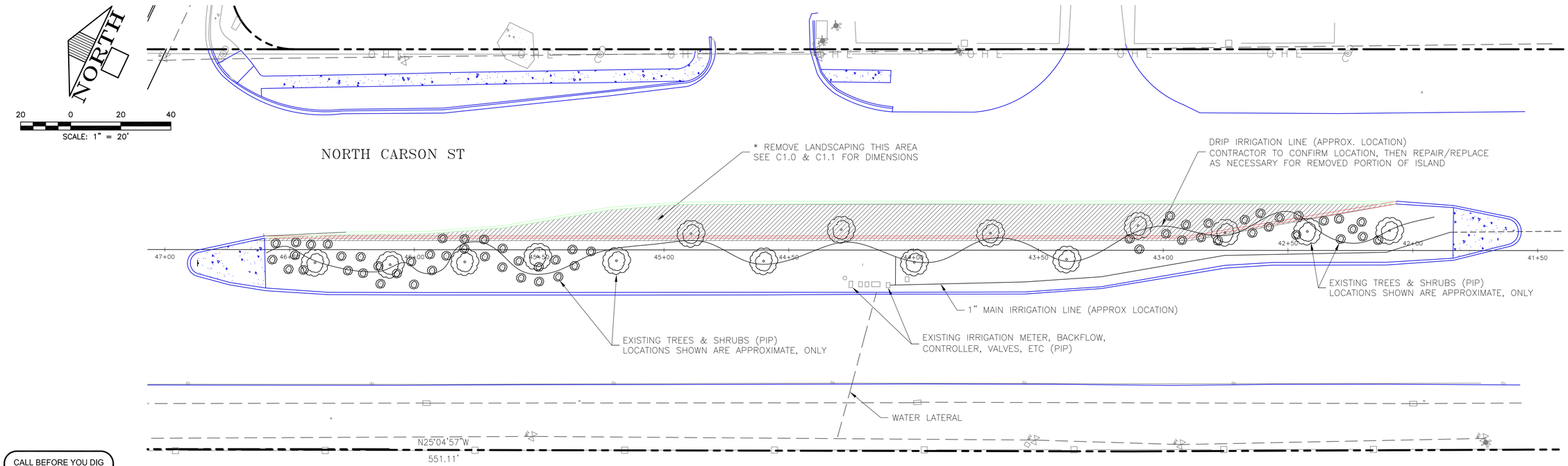

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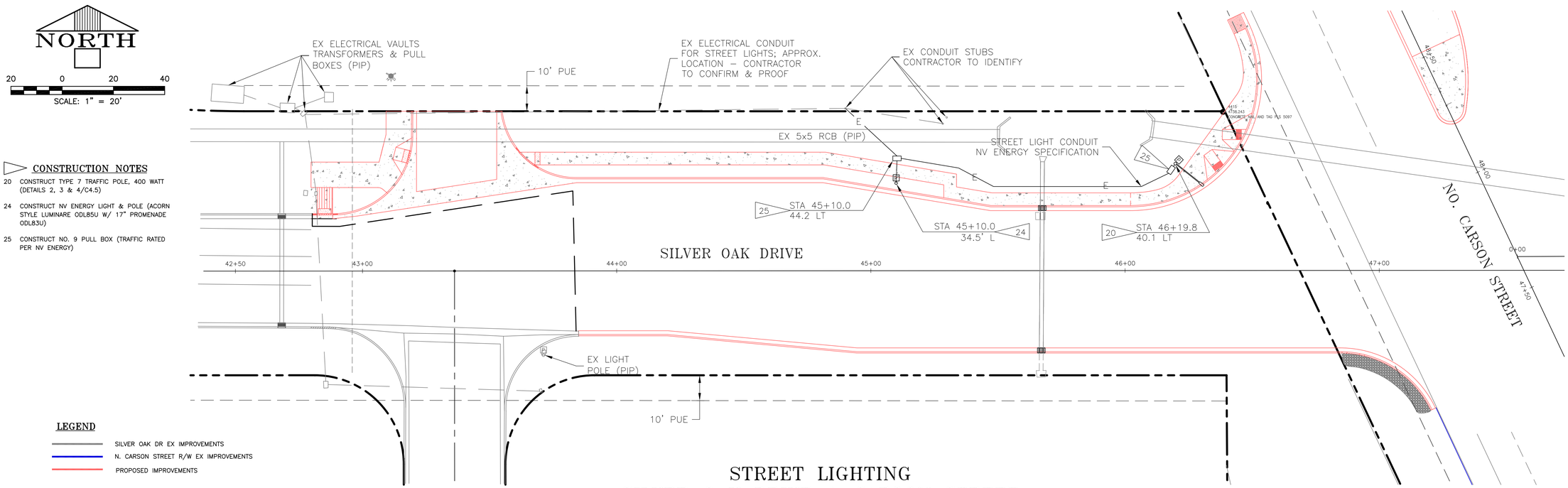
LANDSCAPING & IRRIGATION
NORTH CARSON STREET (STA: 42+00 – 46+60)

SPECIAL NOTE*:

CONTACT VERN KRAHN (PARK PLANNER) AT CARSON CITY PARKS & RECREATON DEPARTMENT FOR POSSIBLE SALVAGE OF TREES & SHRUBS. PHONE 775-887-2363 XTN 1006



CONSTRUCTION NOTES

20 CONSTRUCT TYPE 7 TRAFFIC POLE, 400 WATT (DETAILS 2, 3 & 4/C4.5)

24 CONSTRUCT NV ENERGY LIGHT & POLE (ACORN STYLE LUMINARE ODL85U W/ 17" PROMENADE ODL83U)

25 CONSTRUCT NO. 9 PULL BOX (TRAFFIC RATED PER NV ENERGY)

LEGEND

- SILVER OAK DR EX IMPROVEMENTS
- N. CARSON STREET R/W EX IMPROVEMENTS
- PROPOSED IMPROVEMENTS

STREET LIGHTING
SILVER OAK DRIVE & CARSON STREET

Rev. No.	Revision	Date
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REGISTERED PROFESSIONAL ENGINEER – STATE OF NEVADA
W. MICHAEL STEPHENSON
Exp. 06-30-12
CIVIL
5155
Jun 09 2010

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CARSON CITY PUBLIC WORKS DEPARTMENT

STREET LIGHTING & CARSON ST. LANDSCAPING

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet C1.5

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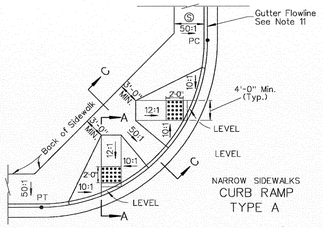
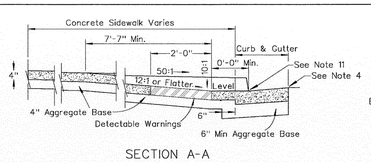
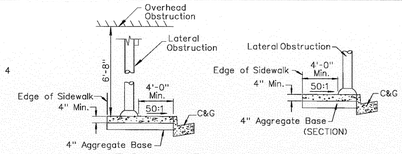
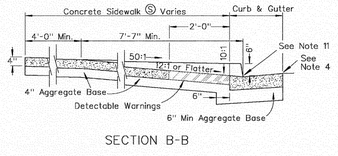




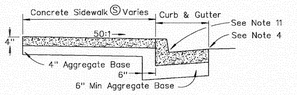
SECTION A-A



TYPICAL SIDEWALK vs OBSTRUCTION
CLEARANCE DETAIL
(See Note 13 - Protruding Objects)



SECTION B-B



SECTION C-C

LEGEND

Ⓢ SIDEWALK, 5'-0" NORMAL. SEE NOTE 9

DETECTABLE WARNINGS

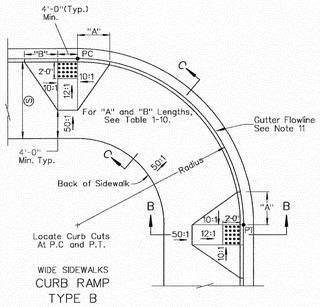
GENERAL NOTES:

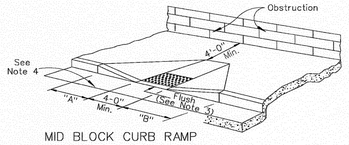
1. SEE STRUCTURE LIST AND PLAN SHEETS FOR Ⓢ, "A" AND "B".
2. GRATINGS OR SIMILAR ACCESSES SHALL NOT BE LOCATED IN AREA AT THE BASE OF THE CURB RAMP OR LANDING AREA.
3. TRANSITIONS FROM RAMPS TO GUTTERS OR ROADWAY SURFACE SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
4. PLANTMIX BITUMINOUS OPEN-GRADED SURFACE SHALL BE FLUSH WITH THE EDGE OF THE GUTTER PAN IN THE AREA OF THE CURB RAMP, AND FEATHERED AT 12:1 IN LINE WITH THE CROSSWALK.
5. ROUGH BROOM TEXTURE ON CURB RAMPS AND WINGS. TEXTURE SHALL PROVIDE A VISUAL CONTRAST TO THE SIDEWALK.
6. CURB RAMP WINGS DO NOT HAVE TO BE WITHIN CROSS-WALK HOWEVER, THE RAMP ITSELF HAS TO BE INSIDE CROSS-WALK.
7. ALL RAMPS SHALL BE 12:1 OR FLATTER.
8. ALL SLOPE RATES ARE RELATIVE TO LEVEL.
9. IF THERE ARE R/W RESTRICTIONS, SIDEWALK WIDTHS CAN BE REDUCED TO 4' WITH PRIOR APPROVAL FROM ASSISTANT CHIEF ROAD DESIGN ENGINEER. IN THIS INSTANCE A 5' X 5' PASSING ZONE IS REQUIRED EVERY 200' PER ADAAG 4.3.4.
10. CONCRETE SHALL BE CLASS A OR AA.
11. RAISE GUTTER FLOWLINE 2" MAX., WHEN REQUIRED TO PREVENT PONDING AT THE RAMP AND MAINTAIN POSITIVE DRAINAGE.
12. DETECTABLE WARNINGS SHALL BE INSTALLED PER MANUFACTURERS GUIDELINES AND CONFORM TO ADAAG (4.29.2) "CONTRAST."
13. PROTRUDING OBJECTS MOUNTED ON WALLS OR POSTS THAT HAVE LEADING EDGES 27" ABOVE THE SIDEWALK AND BELOW THE STANDARD HEAD ROOM CLEARANCE OF 80" WILL BE LIMITED TO A 4" PROTRUSION.

TABLE 1-10

(For 12:1 See Table 1-12, Sheet R-5.2.2)

GRADE % "B" TO "A"	"A" MIN.	"B" MIN.
-6 TO -5.01	4'-0"	12'-6"
-5 TO -4.01	4'-0"	10'-0"
-4 TO -3.01	4'-0"	8'-6"
-3 TO -2.01	4'-0"	6'-6"
-2 TO -1.01	4'-6"	6'-6"
-1 TO 1	5'-6"	5'-6"
1.01 TO 2	6'-6"	4'-0"
2.01 TO 3	7'-6"	4'-0"
3.01 TO 4	8'-6"	4'-0"
4.01 TO 5	10'-0"	4'-0"
5.01 TO 6	12'-6"	4'-0"



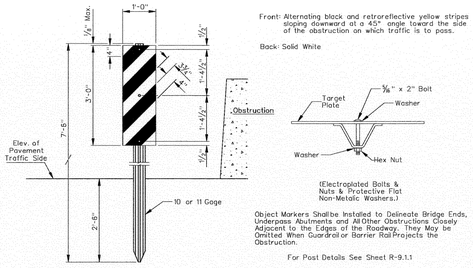


MID BLOCK CURB RAMP
TYPE B

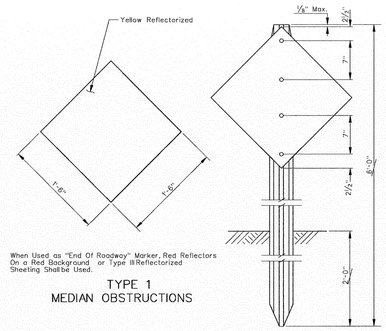
NEVADA DEPARTMENT OF TRANSPORTATION

SIDEWALKS, CURB RAMPS, (NEW CONSTRUCTION)

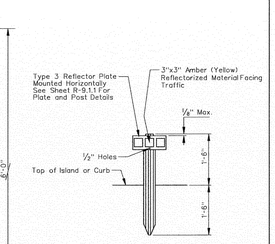
Signed Original On File	R-5.2.1	(613)
CHIEF ROAD DESIGN ENGR.	ADOPTED 7/96	REVISION 6/04



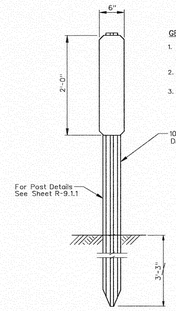
TYPE 3
BRIDGES, PIERS, ABUTMENTS



TYPE 1
MEDIAN OBSTRUCTIONS



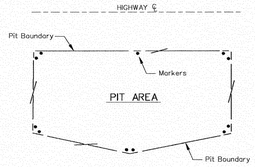
TYPE 2
(USE ON APPROACH END OF MEDIAN ISLANDS ONLY)



GENERAL NOTES:

1. MARKERS MAY BE ERECTED TO DEFINE WITHDRAWN AREA OF MATERIAL SITES, AND SHALL BE SET AT ALL CORNERS OR IRREGULAR LINES, AND APPROXIMATELY ONE-HALF (1/2) MILE APART ON LONG TANGENTS.
2. THESE MARKERS ARE SPACED SO AS TO BE CLEARLY VISIBLE AND ERECTED SO THAT THE WITHDRAWN AREA MAY EASILY BE ESTABLISHED.
3. MARKERS SHALL BE OMITTED WHERE THE WITHDRAWN AREA IS FENCED.

MATERIAL SITE BOUNDARY MARKERS

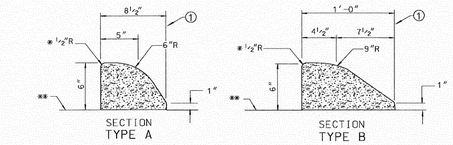


METHOD OF PLACING MATERIAL SITE BOUNDARY MARKERS

NEVADA DEPARTMENT OF TRANSPORTATION

OBJECT MARKERS

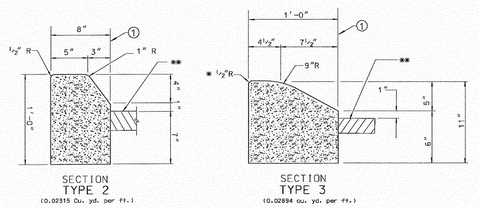
Signed Original On File	R-9.2.1	(619)
CHIEF ROAD DESIGN ENGR.	ADOPTED 8/89	REVISION 8/04



* Omit Rounding When Curbs Are Back To Back (Epoxy Curb To Plantmix Surface)
Note: Epoxy Cement May Be Omitted When Installation Is Temporary.

** P.C.C. or Dense Graded

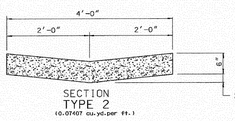
GLUE DOWN CURBS

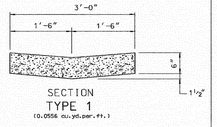


CURB

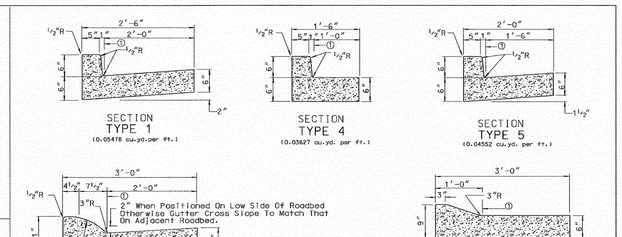
** P.C.C. or Dense Graded

* Omit Rounding When Curbs Are Back To Back.





VALLEY GUTTER

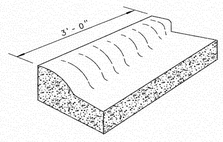


2" When Positioned On Low Side Of Roadbed Otherwise Gutter Cross Slope To Match That On Adjacent Roadbed.

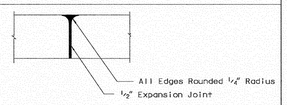
GENERAL NOTES:

① THIS LINE SHOULD BE USED TO DIMENSION OFFSETS.
② WHEN DISTANCE BETWEEN BACK OF CURB ON ISLANDS IS 4 FEET OR LESS- USE 4" CLASS A OR AA CONCRETE (ISLAND PAVING) AND 2" OF GRAVEL BASE.
③ CONCRETE SHALL BE CLASS A OR AA.
④ ALL CONCRETE UNIT VOLUME FOR INFORMATION ONLY.

CURB AND GUTTER



TYPICAL TRANSITION FROM
ROLLED CURB TO VERTICAL FACE



ELEVATION
TYPICAL EXPANSION JOINT DETAIL

NEVADA DEPARTMENT OF TRANSPORTATION

CURB & GUTTERS

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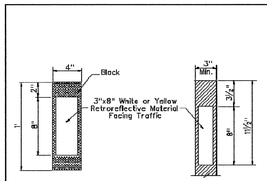
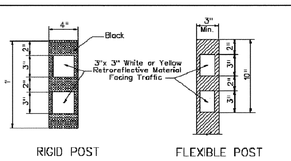
CHIEF HYDRAULICS ENGINEER	ADOPTED 8/69	REVISION 12/02

R-116

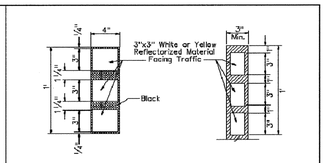


TYPE 1 REFLECTORS
ROADWAY - RAMPS



TYPE 2 REFLECTORS
APPROACHES, ACCELERATION/DECELERATION LANES

All Approaches Shallbe Delineated With White Type 2 Guideposts at the Beginning and Ending Limits of the Approaches. Type 4 & 5 Approaches Will Have an Additional Guidepost at Each Taper Setback.



TYPE 3 REFLECTORS
ISLANDS, CURBS, SHOULDER DIKES

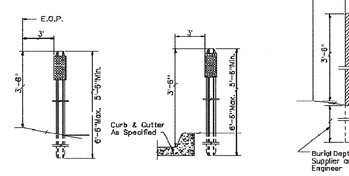
TABLE 1

Maximum Spacing For Guideposts On Horizontal Curves Less Than Or Equal To 10,000'

All Distances Shown In Feet & Rounded To The Nearest 5'

RADIUS OF CURVE (R)	SPACING ON CURVE (S)	SPACING IN ADVANCE OF & BEYOND CURVE 1ST	2ND	3RD
50	20	40	60	120
150	30	60	90	180
200	35	70	105	210
250	40	80	120	240
300	50	100	150	300
400	55	110	165	300
500	65	130	195	300
600	70	140	210	300
700	75	150	225	300
800	80	160	240	300
900	85	170	255	300
1,000	90	180	270	300
1,200	100	200	300	300
1,400	110	220	300	300
1,600	120	240	300	300
1,800	125	250	300	300
2,000	130	260	300	300
2,500	150	300	300	300
3,000	165	300	300	300
5,000	210	300	300	300
10,000	300	300	300	300

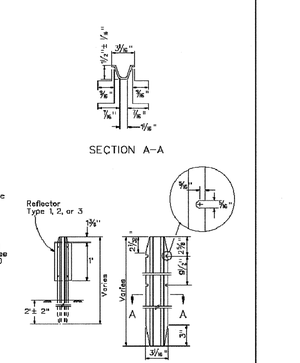
SPACING FOR SPECIFIC RADII NOT SHOWN MAY BE INTERPOLATED FROM TABLE 1 OR COMPUTED FROM THE FORMULA S= 5√R=20. S REFERS TO THE DELINEATOR SPACING AND R REFERS TO THE RADIUS OF THE CURVE. THE MINIMUM SPACING SHOULD BE 20 FEET. THE MAXIMUM SPACING ON CURVES SHOULD NOT EXCEED 300 FEET. IN ADVANCE OF & BEYOND A CURVE, AND MEASURED PROCEEDING AWAY FROM THE END POINT OF THE CURVE, THE SPACING OF THE FIRST DELINEATOR IS 2S. THE SECOND IS 3S, AND THE THIRD 6S BUT IN NO CASE TO EXCEED 300 FEET.



TYPICAL INSTALLATIONS

NOTES:

1. GUIDEPOST REFLECTOR COLOR SHALL CONFORM TO THE COLOR OF ADJACENT STRIPED EDGE LINE.
2. GUIDEPOST SPACING:
   a. TANGENT SECTIONS AND CURVES WITH RADII GREATER THAN 10,000', SPACING SHALL BE 400' BOTH SIDES OF ROADWAY.
   b. CURVES WITH RADIUS OF 10,000' OR LESS- SPACING 20' MINIMUM - 300' MAXIMUM.
      i. DISTANCE SHALL BE MEASURED ALONG CENTERLINE OF ROADWAY AND PROJECTED PERPENDICULARLY ACROSS TO INSIDE AND OUTSIDE OF CURVE.
      ii. GUIDEPOST SHALL BE PLACED AT BEGINNING AND END OF CURVE, WITH SPACING TRANSITIONED WITHIN THE TANGENT AS SHOWN IN TABLE 1. "1ST" INDICATES GUIDEPOST NEAREST CURVE, "3RD" IS FURTHEST AWAY.
      iii. SPACING WITHIN CURVE AS SHOWN IN TABLE 1.
   c. ACCELERATION/DECELERATION LANES & RAMPS: SPACING 100' MAXIMUM FOR TANGENTS & CURVES.
   d. TRUCK ESCAPE RAMPS: SPACING 50'.
   e. GUARDRAIL & BARRIER RAIL SECTIONS: SEE SHEET R-9.2.2.
   f. ISLANDS, CURBS & SHOULDER DIKES: SPACING 20' MINIMUM - 50' MAXIMUM.
   g. IF NORMAL SPACING IS INTERRUPTED BY FEATURES SUCH AS DRIVEWAYS, APPROACHES, ETC., THE GUIDEPOSTS MAY BE MOVED A MAXIMUM OF ¼ OF NORMAL SPACING. GUIDEPOSTS FALLING WITHIN SUCH FEATURES SHALL BE ELIMINATED.



NEVADA DEPARTMENT OF TRANSPORTATION

GUIDE POSTS

Signed Original On File	R-9.1.1	(619)
CHIEF ROAD DESIGN ENGR.	ADOPTED 8/69	REVISION 11/06

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Friday, June 11, 2010 - 8:56am

Rev. No.	Revision	Date
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REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
W. MICHAEL STEPHENSON
Exp. 06-30-12
CIVIL
5155

Jun 11 2010

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CARSON CITY PUBLIC WORKS DEPARTMENT

CIVIL DETAILS

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

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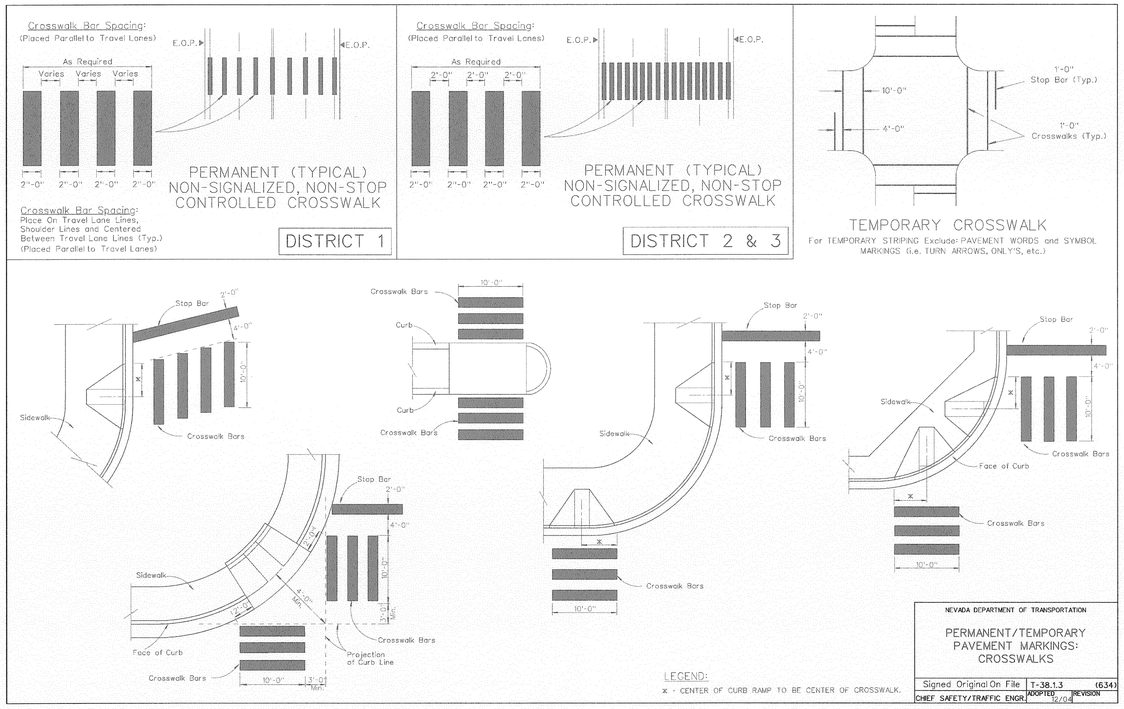

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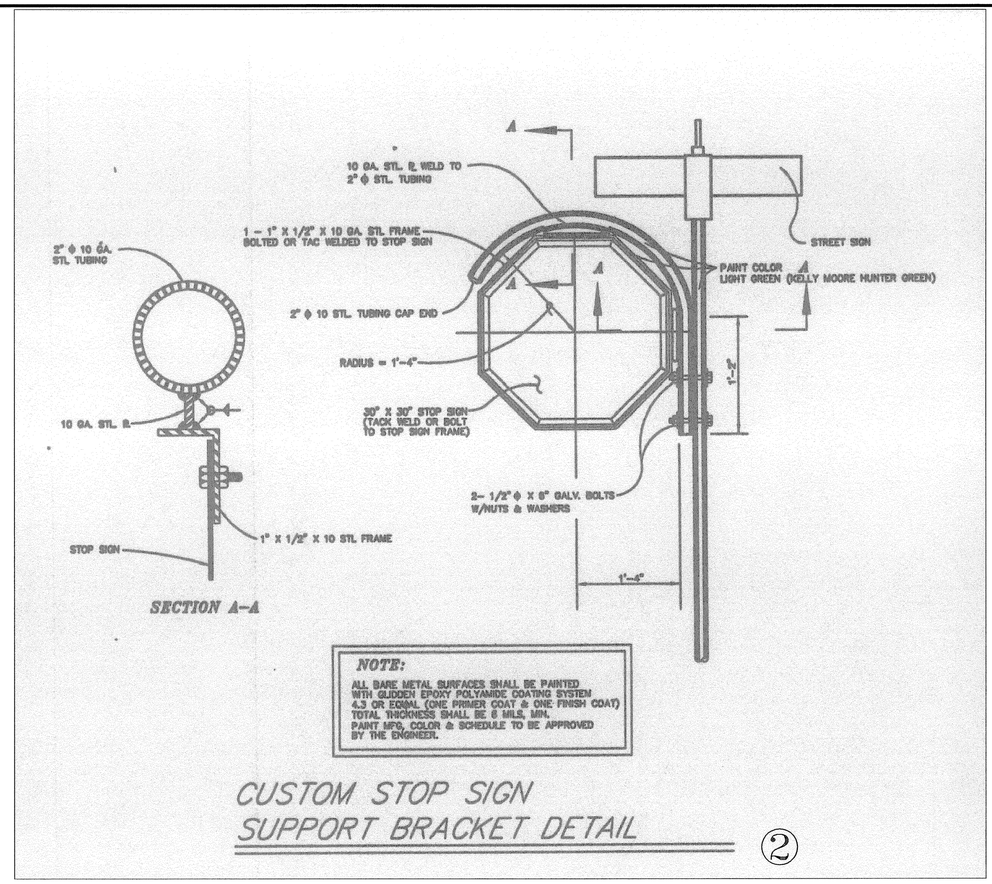
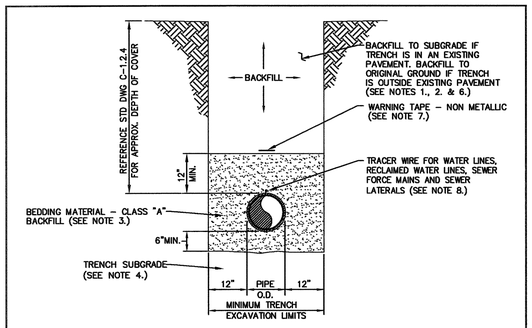


CUSTOM STOP SIGN
SUPPORT BRACKET DETAIL

②



TYPICAL TRENCH SECTION
NTS

NOTES:

1. WATER DENSIFIED BACKFILL AND TUNNELING SHALL BE BY SPECIAL PROVISION ONLY.
2. BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF CLASS E BACKFILL AS SPECIFIED IN SUBSECTION 200.03.06 OF THE SSPWC. MATERIAL SHALL BE PLACED IN LIFT THICKNESS SPECIFIED IN SUBSECTION 305.10 OF THE SSPWC AND DENSIFIED TO 90% RELATIVE COMPACTION.
3. BEDDING SHALL CONFORM TO THE REQUIREMENTS OF CLASS A BACKFILL AS SPECIFIED IN SUBSECTION 200.03.02 OF THE SSPWC. MATERIAL SHALL BE DENSIFIED TO 90% RELATIVE COMPACTION.
4. PLANS SHALL INCLUDE A DETAIL FOR SUBGRADE STABILIZATION INCLUDING BACKFILL MATERIAL, STRUCTURAL GEOTEXTILE FILTER FABRIC AND MODIFIED CUTOFF COLLARS WHEN POTENTIAL FOR UNSTABLE SUBGRADES EXIST, SUBJECT TO THE APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
5. FOR TRENCHES IN ROADWAY SECTION, SEE PAVEMENT PATCH DETAIL (DWG. No. C-5.1.5).
6. FOR THE PURPOSE OF PAYMENT; EXCAVATION AND BACKFILL QUANTITIES ARE BASED ON THESE STANDARD DRAWINGS, AND NO ADDITIONAL COMPENSATION WILL BE MADE. SHORING OR SLOPED CUT SLOPES MAY BE NECESSARY, BUT THERE WILL BE NO ADDITIONAL PAYMENT. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
7. PLACE NON METALLIC WARNING TAPE 1 FOOT ABOVE ALL BURIED PIPES AND CONDUITS.
8. TRACER WIRE SHALL BE 12 GAUGE (MINIMUM THICKNESS) INSULATED SOLID COPPER OR COPPER-CLAD STEEL CORE WIRE. INSULATION SHALL BE 30 MIL HDPE. PLANS SHALL SPECIFY WIRE STRENGTH AND INSULATION THICKNESS FOR BORING APPLICATIONS. SPLICES SHALL BE CONNECTED BY WIRE NUTS, SEALED WITH AQUA SEAL OR SILICON FILLED, AND DOUBLE WRAPPED WITH U/L LISTED ELECTRICAL TAPE. TRACER WIRE COLOR SHALL BE, BLUE FOR WATER, PURPLE FOR RECLAIMED WATER, AND GREEN FOR SEWER.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			TRENCH EXCAVATION AND BACKFILL	CARSON CITY
				DRAWING NO. C-1.2.1 (305)
APPROVED BY:		7/09		DATE 7/2009

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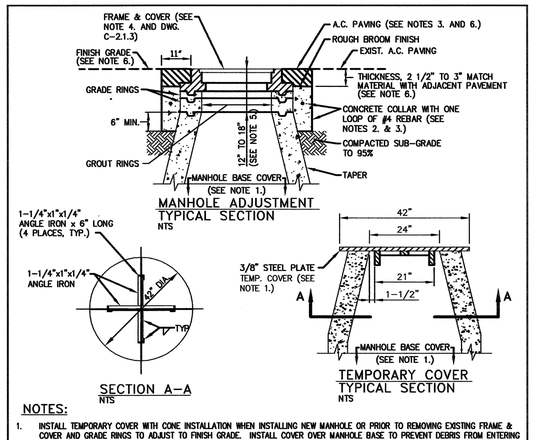

NOTES:

1. INSTALL TEMPORARY COVER WITH CONE INSTALLATION WHEN INSTALLING NEW MANHOLE OR PRIOR TO REMOVING EXISTING FRAME & COVER AND GRADE RINGS TO ADJUST TO FINISH GRADE. INSTALL COVER OVER MANHOLE BASE TO PREVENT DEBRIS FROM ENTERING SEWER SYSTEM. THE MANHOLE BASE COVER SHALL BE IN PLACE PRIOR TO PERFORMING ANY ADJUSTMENTS OR GROUTING AND SHALL REMAIN IN PLACE WHILE ADJUSTMENTS OR GROUTING ARE BEING PERFORMED. REMOVE BASE COVER UPON ADJUSTMENT APPROVAL BY CARSON CITY.
2. CONCRETE SHALL CONFORM TO THE SSPWC SECTION 202.01.12. REBAR SHALL BE USED ONLY WHEN THE MANHOLE IS LOCATED OUTSIDE PAVED AREAS.
3. THE CONCRETE COLLAR SHALL BE LEFT 2 1/2 INCHES TO 3 INCHES BELOW FINISHED ASPHALT SURFACE. APPLY AN APPROVED TACK COAT (CONFORMING TO THE SSPWC SECTION 316) AND FILL VOID BETWEEN ADJACENT PAVEMENT AND FRAME WITH TYPE 3 AC 20 PAVING (CONFORMING TO THE SSPWC SECTION 320). APPLY FOG SEAL (CONFORMING TO SSPWC SECTION 317) TO THE ASPHALT SURFACE. ALL CUTS IN PAVING SHALL BE STRAIGHT AND EVEN. EXCEPTION: WHEN STRUCTURE NOT LOCATED IN ASPHALT PAVEMENT OR LOCATED IN AN UNPAVED AREA, EXTEND CONCRETE TO FINISH GRADE.
4. INSTALL NEW FRAME & COVER UNLESS OTHERWISE SHOWN ON THE PLANS OR SPECIAL CONDITIONS. FRAME & COVER SHALL BE SET FLUSH WITH FINISH GRADE UNLESS OTHERWISE NOTED.
5. FOR NEW MANHOLE INSTALLATIONS, DISTANCE FROM COVER TO CONE SHALL BE 12 INCHES MINIMUM AND 15 INCHES MAXIMUM FOR MINOR RESIDENTIAL STREETS AND 15 INCHES MINIMUM AND 18 INCHES MAXIMUM FOR ALL OTHER STREETS. FOR ADJUSTING EXISTING FRAME & COVERS THE DISTANCE FROM COVER TO CONE SHALL NOT EXCEED 18 INCHES.
6. WHEN LOCATED IN NDOT RIGHT-OF-WAY, CONCRETE COLLAR SHALL CONFORM TO NDOT STANDARD PLAN SHT R-4.7.3 AND STANDARD SPECIFICATION 609.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			MANHOLE FRAME & COVER ADJUSTMENT	CARSON CITY
				DRAWING NO. C-2.1.5 (204, 323)
APPROVED BY:		7/09		DATE 7/2009

④

1. WATER MAIN SHUTDOWNS/INTERRUPTION OF WATER/FIRE SERVICE: OBTAIN TENTATIVE APPROVAL FROM CARSON CITY WATER UTILITY PRIOR TO PLANNING A SHUTDOWN. APPROVAL IS REQUIRED ONE WORKING DAY PRIOR TO NOTIFICATION OF CUSTOMERS. COMMERCIAL CUSTOMERS SHALL RECEIVE 2 WORKING DAYS WRITTEN AND VERBAL NOTICE OF A SHUTDOWN. SPECIAL ARRANGEMENTS INCLUDING NIGHT TIME SHUTDOWNS MAY BE REQUIRED OF THE CONTRACTOR TO ACCOMMODATE CUSTOMER OPERATIONS. RESIDENTIAL CUSTOMERS SHALL RECEIVE 24 HOURS WRITTEN NOTICE. WHEN WORK IS PERFORMED BY CITY STAFF, THE CITY IS RESPONSIBLE FOR THE NOTIFICATION. THE CONTRACTOR IS RESPONSIBLE IN ALL OTHER CASES. A LIST SHALL BE KEPT BY THE RESPONSIBLE PARTY LISTING THE DATE, TIME AND ADDRESS OF ALL PERSONS NOTIFIED. THE PERSON NOTIFIED SHALL BE INCLUDED ON THE LIST FOR ALL COMMERCIAL CUSTOMERS. CONTACT CARSON CITY WATER UTILITY FOR PHONE NUMBERS WHEN COMMERCIAL CUSTOMERS CANNOT BE LOCATED. THE CONTRACTOR WILL BE SUBJECT TO DAMAGE CLAIMS SHOULD THEY FAIL TO NOTIFY CUSTOMERS OR MAINTAIN DOCUMENTATION OF NOTIFICATION OF CUSTOMERS. THE TOTAL TIME OF ANY WATER SERVICE INTERRUPTION IS LIMITED TO 4 HOURS MAXIMUM. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING WATER VALVES. WATER MAIN SHUTDOWNS WILL ONLY BE SCHEDULED FOR TUESDAYS, WEDNESDAYS, OR THURSDAYS, EXCLUDING THE WORKING DAYS BEFORE AND AFTER A HOLIDAY. CONTRACTOR SHALL MAKE A WRITTEN REQUEST, TO THE WATER OPERATIONS CHIEF, A MINIMUM OF 10 CALENDAR DAYS IN ADVANCE OF ANY PLANNED SHUTDOWN.
2. WATER MAINS (6 INCH THRU 12 INCH) SHALL BE PVC C900, DR 18 (MINIMUM WALL THICKNESS) UNLESS HIGHER PRESSURE IS SPECIFIED ON THE PLANS. WATER SERVICES 2 INCHES OR LESS SHALL BE CTS, PE TUBING MINIMUM 200 PSI; WATER SERVICES 3 INCHES OR GREATER SHALL BE 4 INCH MINIMUM DIAMETER PVC C900, DR 18 OR AS SPECIFIED ON THE PLANS.
3. MAINTAIN 18 INCHES VERTICAL AND 5 FEET HORIZONTAL SEPARATION BETWEEN ALL UNDERGROUND UTILITY LINES AND WATER LINES. IF WATER LINE IS BELOW POWER LINE OR IS WITHIN 18 INCH VERTICAL SEPARATION OF POWER LINE, POWER/TELEPHONE LINE SHALL BE ENCASED WITH 4 INCHES MINIMUM OF CONCRETE EXTENDING 5 FEET EACH SIDE OF CROSSING. (SEE NV ENERGY SPECS.) CONCRETE ENCASEMENT OF WATER LINES IS NOT ALLOWED.
4. ALL HOT TAPS, GREATER THAN 2 INCHES AND LESS THAN 14 INCHES, ARE TO BE PERFORMED BY CARSON CITY WATER UTILITY. THE CONTRACTOR SHALL CONTACT THE WATER OPERATIONS CHIEF AT LEAST 2 WORKING DAYS PRIOR TO SCHEDULING HOT TAP DATE AND TIME (HOT TAPS ARE PERFORMED TUESDAY THRU THURSDAY EXCLUDING THE WORKING DAYS BEFORE AND AFTER A HOLIDAY). PRIOR TO HOT TAPPING, THE SADDLE SHALL BE HYDROSTATICALLY PRESSURE TESTED TO 150 PSI MINIMUM OR THE DESIGN OF PIPE SYSTEM FOR A MINIMUM OF 5 MINUTES. THE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE WATER UTILITY PERSONNEL PRIOR TO PERFORMING THE TAP.
5. WATER VALVE MARKERS SHALL BE BLUE CARSONITE UTILITY MARKER (CUM-375), 5 FEET-2 INCHES (5'-2") WITH CARSON CITY WATER VALVE DECAL (CWV-116) OR APPROVED EQUAL. PLACE MARKER NO MORE THAN 5 FEET FROM THE VALVE OR AS DIRECTED BY THE CARSON CITY INSPECTOR.
6. REDUCED PRESSURE PRINCIPLE AND DOUBLE CHECK VALVE BACKFLOW ASSEMBLIES SHALL BE APPROVED BY THE CARSON CITY INSPECTOR, AND TESTED BY A CERTIFIED BACKFLOW ASSEMBLY TESTER, AND TEST RESULTS SHALL BE APPROVED BY CARSON CITY WATER UTILITY. FOR NEW WATER METER SETS, THE REQUIRED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED, INSPECTED, APPROVED AND CERTIFIED TEST RESULTS PROVIDED TO THE CARSON CITY INSPECTOR WITHIN 5 DAYS OF METER SET, UNLESS THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR APPROVES OTHERWISE. THE SERVICE WILL BE LOCKED OFF IF INSPECTIONS AND CERTIFICATIONS ARE NOT COMPLETED AS SPECIFIED ABOVE. A 25 DOLLAR FEE WILL BE ASSESSED AT TIME OF TURN-ON WHEN LOCK IS REMOVED DURING NORMAL WORKING HOURS. THE FEE WILL BE ASSESSED ON THE BUILDING PERMIT FOR THE INSTALLATION OF THE BACKFLOW DEVICE.
7. ALL WATER MAIN, WATER/FIRE SERVICE, AND BACKFLOW PREVENTION INSPECTIONS AND TESTING MUST BE APPROVED PRIOR TO APPROVAL OF ANY CERTIFICATE OF OCCUPANCY.
8. DISINFECTION TABLETS SHALL BE PLACED USING TITEBOND MULTI-PURPOSE CLEAR 100%%% SILICONE OR APPROVED EQUAL FOOD GRADE SILICONE

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			WATER GENERAL NOTES	CARSON CITY
				DRAWING NO. C-3.1.1 (307)
APPROVED BY:		07/09		DATE 7/2009

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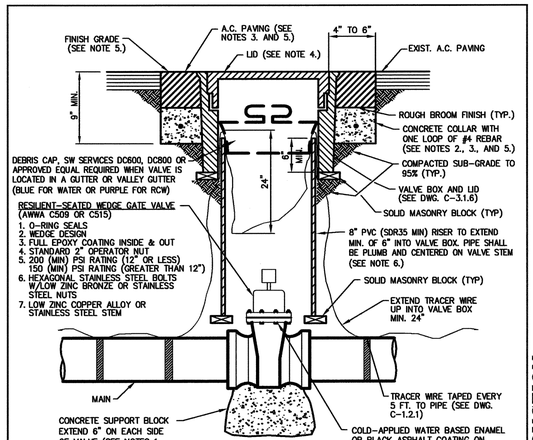

TYPICAL SECTION
NTS

NOTES:

1. SUPPORT BLOCKING SHALL BE POURED AGAINST UNDISTURBED SOIL AND NOT PREVENT ACCESS TO BOLT ASSEMBLY OR VALVE JOINTS.
2. CONCRETE SHALL CONFORM TO THE SSPWC SECTION 337.10. REBAR SHALL ONLY BE USED WHEN THE VALVE BOX IS LOCATED OUTSIDE PAVED AREAS.
3. THE CONCRETE COLLAR SHALL BE LEFT 2 1/2 INCHES - 3 INCHES BELOW FINISHED ASPHALT SURFACE. APPLY AN APPROVED TACK COAT (CONFORMING TO THE SSPWC SECTION 316) AND FILL VOID BETWEEN ADJACENT PAVEMENT AND FRAME WITH TYPE 3 PG 64-22 PAVING (CONFORMING TO THE SSPWC SECTION 320). APPLY FOG SEAL (CONFORMING TO THE SSPWC SECTION 317) TO THE ASPHALT SURFACE. ALL CUTS IN PAVING SHALL BE STRAIGHT AND EVEN. EXCEPTION: WHEN STRUCTURE NOT LOCATED IN ASPHALT PAVEMENT OR IN AN UNPAVED AREA, EXTEND CONCRETE TO FINISH GRADE.
4. LIDS SHALL BE SET FLUSH WITH FINISH GRADE UNLESS OTHERWISE NOTED.
5. WHEN LOCATED IN NDOT RIGHT-OF-WAY, CONCRETE COLLAR SHALL CONFORM TO NDOT STANDARD PLAN SHT R-4.3.3 AND STANDARD SPECIFICATION 609.
6. RISER COLOR SHALL BE BLUE, OR SAME COLOR AS MAIN FOR WATER APPLICATIONS, PURPLE FOR RECLAIMED WATER APPLICATIONS, AND GREEN FOR SANITARY SEWER APPLICATIONS.
7. VALVES ON FIRE LINES SHALL BE UL/FM APPROVED AND MEET ALL APPLICABLE NFPA REQUIREMENTS.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			GATE VALVE	CARSON CITY
				DRAWING NO. C-3.1.4 (203,307)
APPROVED BY:		07/09		DATE 7/2009

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Rev. No.	Revision	Date
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REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
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Exp. 06-30-12
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CARSON CITY PUBLIC WORKS DEPARTMENT

CIVIL DETAILS

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet C4.2

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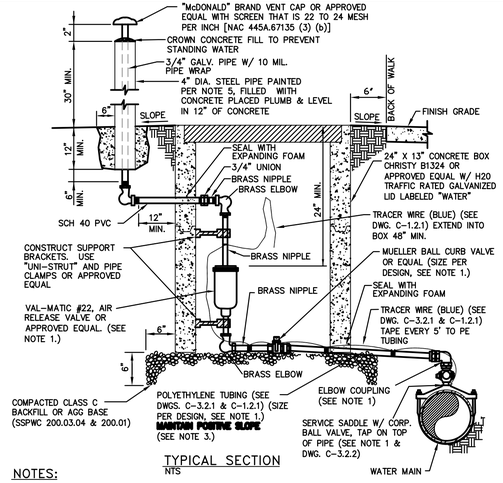

TYPICAL SECTION
NTS

NOTES:

1. SIZE AND PRESSURE CLASS AS INDICATED ON THE PLANS, SHALL BE DETERMINED BY THE DESIGN ENGINEER, MINIMUM SIZE 3/4 INCH. CORP BALL VALVE SHALL BE MUELLER B-20013 OR B-2969, OR FORD FB-500-x WITH MALE I.P. THREADS BOTH ENDS OR APPROVED EQUAL. ELBOW COUPLING SHALL BE MUELLER H-15533 FEMALE I.P. THREAD X CTS 110 COMP, OR FORD L14-xx-Q FEMALE IP THREAD X QUICK JOINT, W/ TUBING LINER OR APPROVED EQUAL.
2. AIR RELEASE VALVES SHALL BE INSTALLED OUTSIDE PAVEMENT SECTION. SLOPE GROUND AWAY FROM AIR RELEASE VALVE BOX OR CONSTRUCT MINIMUM HEIGHT CURBING TO PROTECT FROM FLOODING BY SURFACE WATERS.
3. ALL PIPES SHALL HAVE POSITIVE SLOPE FROM MAIN LINE TO AIR RELEASE VALVE.
4. 1 1/2 INCH TO 2 INCH AIR-RELEASE VALVES REQUIRE A CHRISTY FL36 BOX AND COVER OR APPROVED EQUAL.
5. STEEL PIPE PAINT SHALL BE RUST-OLEUM 7400 HIGH GLOSS SAFETY YELLOW ALKYD ENAMEL OR APPROVED EQUAL.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			POTABLE WATER AIR RELEASE	CARSON CITY
				DRAWING NO. C-3.1.10 (203,307)
APPROVED BY:		07/09		DATE 7/2009

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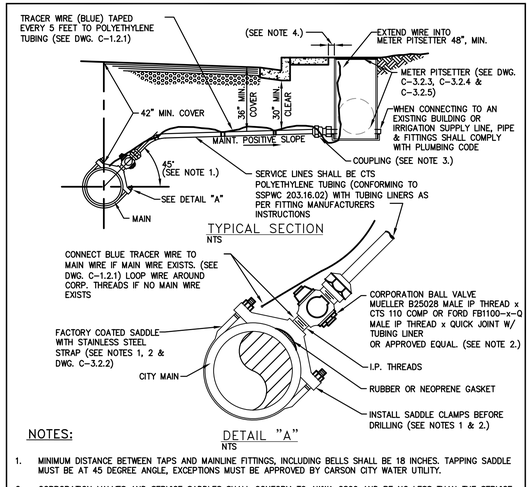


TYPICAL SECTION
NTS

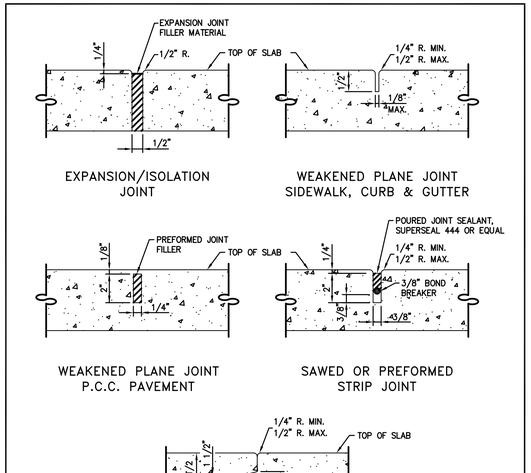
DETAIL "A"
NTS

NOTES:

1. MINIMUM DISTANCE BETWEEN TAPS AND MAINLINE FITTINGS, INCLUDING BELLS SHALL BE 18 INCHES. TAPPING SADDLE MUST BE AT 45 DEGREE ANGLE, EXCEPTIONS MUST BE APPROVED BY CARSON CITY WATER UTILITY.
2. CORPORATION VALVES AND SERVICE SADDLES SHALL CONFORM TO AWWA C800 AND BE NO LESS THAN THE SERVICE LINE SIZE. WHEN REPLACING AN EXISTING SERVICE LINE AND A SIZE LARGER THAN SHOWN IS ENCOUNTERED, THE LARGER SIZE LINE, FITTINGS AND SADDLE SHALL BE INSTALLED UNLESS APPROVED BY CARSON CITY WATER UTILITY.
3. COUPLING FITTING SHALL CONFORM TO AWWA C800 AND BE A MUELLER H-15451 CTS 110 COMP OR FORD C14-xx-Q QUICK JOINT W/ TUBING LINER x FEMALE IP THREAD OR APPROVED EQUAL.
4. METER PITSETTERS TO BE PLACED 4 INCHES FROM BACK OF SIDEWALK IN AREAS WHERE SIDEWALK IS ADJACENT TO CURB, OR 6 INCHES FROM BACK OF CURB IN AREAS WHERE SIDEWALK IS OFFSET FROM CURB, OR AS DIRECTED BY CARSON CITY WATER UTILITY. IN AREAS WHERE NO CURB OR SIDEWALK IS PRESENT, METER PITSETTERS SHALL BE PLACED WITHIN THE RIGHT-OF-WAY AS SHOWN ON THE APPROVED PLANS.
5. DISCONTINUANCE OF USE OF A SERVICE REQUIRES ABANDONMENT OF THE SERVICE. NOTIFY CARSON CITY PUBLIC WORKS FOR METER REMOVAL PRIOR TO PROCEEDING WITH ABANDONMENT. REMOVE EXISTING METER BOX AND EXPOSE CORP STOP AT MAIN FOR SHUT-OFF. ALL PIPING OR TUBING SHALL BE DISCONNECTED FROM CORP AND PLUGGED AT BOTH ENDS. CARSON CITY PUBLIC WORKS SHALL BE NOTIFIED FOR INSPECTION OF CORP ASSEMBLY PRIOR TO BACKFILLING.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			3/4" TO 2" WATER SERVICE	CARSON CITY
				DRAWING NO. C-3.2.1 (203,307)
APPROVED BY:		07/09		DATE 7/2009

②

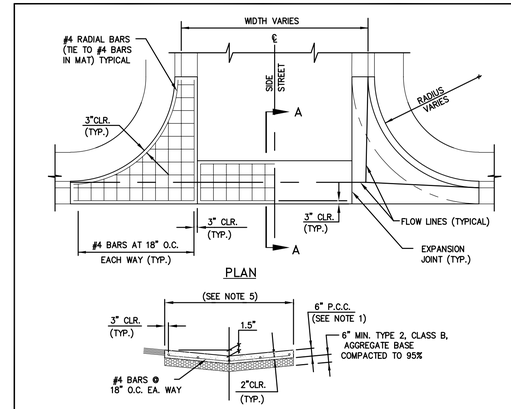


NOTES:

1. ALL CONCRETE EDGING AND JOINTING SHALL CONFORM TO SECTION 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			P.C.C. JOINTING DETAILS	CARSON CITY
				DRAWING NO. C-5.1.1 (312)
APPROVED BY:		7/09		DATE 7/2009

③



SECTION A-A

NOTES:

1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), 4000 PSI MIN. COMPRESSIVE STRENGTH @ 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202. POLYPROPYLENE FIBERS SHALL BE ADDED TO THE P.C.C. PER THE MANUFACTURER'S RECOMMENDATIONS.
2. FOR INDUSTRIAL AREAS, AN ENGINEERED DESIGN IS REQUIRED.
3. AGGREGATE BASE SHALL BE ENGINEERED TYPE 2, CLASS B WITH 95% COMPACTION.
4. VALLEY GUTTER SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET.
5. LOCAL AND COLLECTOR STREETS, WIDTH = 6 FEET. ARTERIAL STREETS (DRIVEWAYS ONLY), WIDTH = 10 FEET.
6. VALLEY GUTTER SECTIONS (SPANDRELS) ALONG CURB & GUTTER SHALL BE A MONOLITHIC POUR AS SHOWN.
7. ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL C-5.1.1 AND CONFORM TO SECTION 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			P.C.C. VALLEY GUTTER	CARSON CITY
				DRAWING NO. C-5.1.2
APPROVED BY:		7/09		DATE 7/2009

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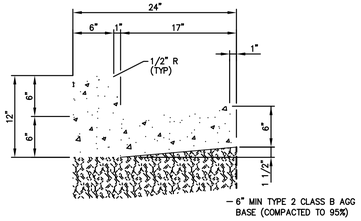

— 6" MIN TYPE 2 CLASS B AGG BASE (COMPACTED TO 95%)

1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), 4000 PSI MIN COMPRESSIVE STRENGTH @ 28 DAYS, MIN 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES ALL MATERIALS SHALL CONFORM TO SECTION 202 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. ALL CONCRETE CURB & GUTTER SHALL HAVE 1/2 INCH EXPANSION JOINTS EVERY 30 FEET (UNLESS APPROVED OTHERWISE BY THE ENGINEER) AND AT ALL CURB RETURNS AND SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET. CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL C-5.1.1 AND CONFORM TO SECTION 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
3. ALL AGGREGATE BASE SHALL BE TYPE 2, CLASS B AND CONFORM TO SECTION 200.01. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AND SHALL BE MECHANICALLY COMPACTED TO 95% COMPACTION, IN CONFORMANCE WITH SECTION 308.05 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
4. CURBS SHALL BE MARKED WITH A 2 INCH "S" ON THE TOP OF CURB AT SEWER LATERAL LOCATIONS.

APPROVED BY: 7/09

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7/2009

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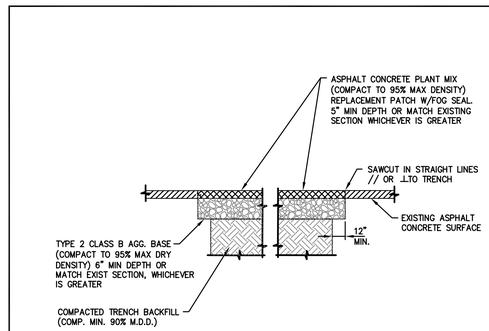

NOTES:

1. IF SAWCUT IS WITHIN 24 INCHES OF EDGE OF A.C. PAVEMENT REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
2. BITUMINOUS MATERIAL SHALL MEET THE REQUIREMENTS OF SECTIONS 201 AND 320 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. MIXING, SPREADING, AND COMPACTING OF BITUMINOUS PAVEMENT SHALL BE DONE ONLY WHEN THE SURFACE ON WHICH THE MATERIALS ARE TO BE PLACED IS DRY AND WHEN THE ATMOSPHERIC TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT AND HAS NOT BEEN BELOW 40 DEGREES FAHRENHEIT DURING THE PRECEDING 24 HOURS.
4. FINISHED SURFACE VARIATIONS SHALL BE 0 TO 0.25 INCHES ABOVE EXISTING SURFACE. ALL HUMPS EXCEEDING THIS TOLERANCE SHALL BE CORRECTED BY REMOVAL OF MATERIAL AND REPLACING IT WITH NEW MATERIAL. FINISHED SURFACE OF PATCH SHALL NOT BE BELOW EXISTING ADJACENT SURFACE.
5. PLANTMIX BITUMINOUS PAVEMENT SURFACE COURSE SHALL BE PG-64-22 TYPE 3 AND SUB SURFACE COURSES SHALL BE PG-64-22 TYPE 3 UNLESS OTHERWISE NOTED.
6. PLANTMIX BITMUMINOUS PAVEMENT PATCHES SHALL MATCH EXISTING SECTION OR HAVE A MINIMUM THICKNESS OF 5 INCHES, WHICHEVER IS GREATER.
7. PLANS SHALL SPECIFY PAVEMENT PATCH AND AGGREGATE BASE DEPTHS AS SPECIFIED BY THE DESIGN ENGINEER.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			PAVEMENT PATCH	CARSON CITY
				DRAWING NO. C-5.1.6
APPROVED BY:		7/09		DATE 7/2009

⑥

1. NO CONCRETE SHALL BE PLACED UNTIL FORMS AND SUBGRADE ARE INSPECTED AND APPROVED BY CARSON CITY PUBLIC WORKS.
2. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), WITH COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67 PER SECTION 200.05.03 OF THE STANDARD SPECIFICATIONS, AND SHALL HAVE A 1 TO 4 INCH SLUMP, AND 4 TO 7 PERCENT ENTRAINED AIR. 4000 PSI MIN COMPRESSIVE STRENGTH @ 28 DAYS, MIN 6 SACKS OF TYPE II CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DETAIL C-5.1.1 AND CONFORM TO SEC. 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
4. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL BY CARSON CITY PUBLIC WORKS. A MINIMUM SURFACE OF 5 FEET X 5 FEET CLEAR IS REQUIRED WHEN DIRECTION OF TRAVEL MAY CHANGE AND A MINIMUM SURFACE OF 4 FEET CLEAR IS REQUIRED WHERE DIRECTION OF TRAVEL IS NOT EXPECTED TO CHANGE, UNLESS OTHERWISE APPROVED BY THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
5. EXISTING CONCRETE SHALL BE REMOVED TO A NEAT SAWCUT LINE OR NEAREST EXPANSION JOINT.
6. ALL AGGREGATE BASE SHALL BE TYPE 2, CLASS B AND SHALL CONFORM TO SEC.200.01. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
7. NEW CONCRETE SHALL HAVE A HEAVY BROOM FINISH PERPENDICULAR TO SIDEWALK.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			SIDEWALK AND DRIVEWAY GENERAL NOTES	CARSON CITY
				DRAWING NO. C-5.2.1
APPROVED BY:		7/09		DATE 7/2009

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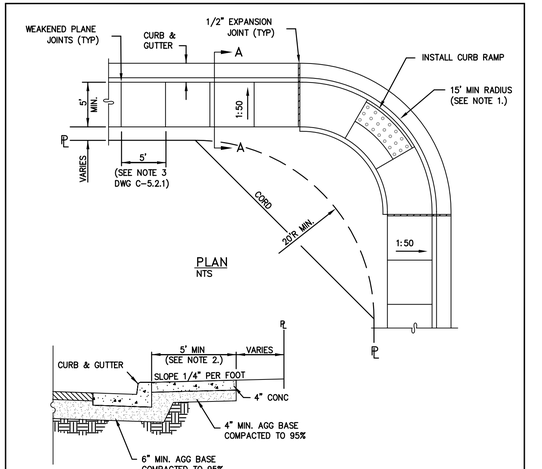

SECTION A-A
NTS

NOTES:

1. MINIMUM CURB RETURN RADIUS SHALL BE 15 FEET UNLESS OTHERWISE APPROVED BY THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
2. SOME STREETS MAY REQUIRE WIDER SIDEWALKS.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			TYPE "A" SIDEWALK	CARSON CITY
				DRAWING NO. C-5.2.2
APPROVED BY:		7/09		DATE 7/2009

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REV. NO.	DATE
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2	
3	
4	
5	
6	

REGISTERED PROFESSIONAL ENGINEER — W. MICHAEL STEPHENSON — Exp. 06-30-12 — CIVIL — 5755 — STATE OF NEVADA

Jun 09 2010

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Carson City, Nevada 89703
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CARSON CITY PUBLIC WORKS DEPARTMENT

CIVIL DETAILS

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet	C4.3
JOB #	060705
DESIGN BY:	MS
DRAWN BY:	KR
CHECKED BY:	MS
DATE:	06/01/10
FILE:	060705CDT.dwg

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Wednesday, June 09, 2010 - 3:48pm FILE: Z:\Projects\2006\060705.CC- SO In\DWG\060705CDT.dwg

1. NO CONCRETE SHALL BE PLACED UNTIL FORMS AND SUBGRADE ARE INSPECTED BY CARSON CITY ENGINEERING DIVISION.
2. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), 4000 PSI MIN COMPRESSIVE STRENGTH @ 28 DAYS, MIN 6 SACKS OF CEMENT PER CUBIC YARDS WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DETAIL C-5.1.1 AND CONFORM TO SEC. 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
4. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL BY CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR. A MINIMUM LANDING OF 5 FEET X 5 FEET CLEAR IS REQUIRED WHEN DIRECTION OF TRAVEL MAY CHANGE. A MINIMUM OF 4 FEET CLEAR IS MAY BE USED UPON APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR WHERE DIRECTION OF TRAVEL IS NOT EXPECTED TO CHANGE.
5. WHEN A CROSSWALK IS SERVICED BY RAMP, LANDINGS SHALL BE CONTAINED WITHIN THE CROSSWALK AREA.
6. EXISTING CONCRETE SHALL BE REMOVED TO A NEAT SAWCUT LINE OR NEAREST EXPANSION JOINT.
7. PLANTMIX BITUMINOUS SURFACE SHALL BE FLUSH WITH THE EDGE OF THE GUTTER PAN IN THE AREA OF THE CURB RAMP. GUTTER SHALL MAINTAIN POSITIVE DRAINAGE TO PREVENT PONDING.
8. ALL AGGREGATE BASE SHALL BE TYPE 2, CLASS B AND SHALL CONFORM TO SEC.200.01. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
9. NEW CONCRETE SHALL HAVE A HEAVY BROOM FINISH PERPENDICULAR TO SIDEWALK.
10. DETECTABLE WARNINGS SHALL BE EAST JORDAN IRON WORKS 7005 SERIES CAST IRON DETECTABLE WARNING PLATES OR APPROVED EQUAL. INSTALLED PER MANUFACTURERS INSTALLATION GUIDELINES AND CONFORM TO ADAAG (4.29) "DETECTABLE WARNINGS". COLOR: ASPHALT DIPPED UNLESS OTHERWISE APPROVED BY CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR. RADIAL DETECTABLE WARNINGS SHALL BE USED WHEN REQUIRED TO MAINTAIN MINIMUM CLEARANCE OF 3 INCHES AND MAXIMUM CLEARANCE OF 8 INCHES FROM DETECTABLE WARNINGS TO BACK FACE OF CURB. RADIAL DETECTABLE WARNINGS SHALL HAVE A RADIUS WITHIN 5 FEET OF BACK FACE OF CURB RADIUS.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			CURB RAMP GENERAL NOTES	CARSON CITY
				DRAWING NO. C-5.3.1
APPROVED BY:		7/09		DATE 7/2009

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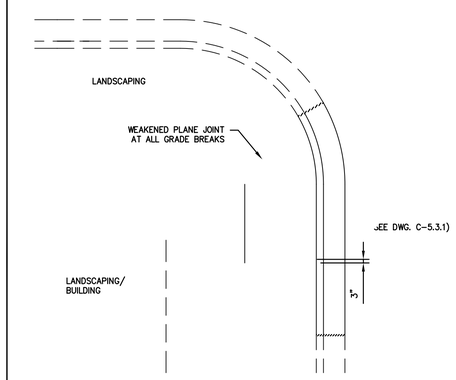

NOTE:

1. SEE "CURB RAMP GENERAL NOTES" DWG C-5.3.1 FOR FURTHER REQUIREMENTS.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			PERPENDICULAR CURB RAMP DIRECTIONAL	CARSON CITY
				DRAWING NO. C-5.3.2
APPROVED BY:		7/09		DATE 7/2009

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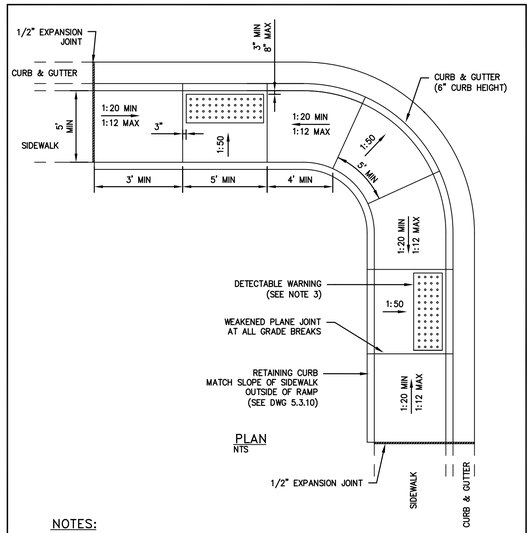

NOTES:

1. NOT FOR USE WITH OFFSET SIDEWALKS.
2. RETAINING CURBS ARE TO BE USED IN ALL CASES AND FINISH GRADE AT BACK OF SIDEWALK IS TO BE RAISED TO TOP OF RETAINING CURB ELEVATION.
3. DETECTABLE WARNINGS MAY BE LINEAR OR RADIAL OR A COMBINATION OF BOTH TO ACHIEVE A MAXIMUM OF 8 INCHES AND MINIMUM OF 3 INCHES CLEARANCE FROM BACK OF CURB.
4. SEE "CURB RAMP GENERAL NOTES" DWG C-5.3.1 FOR FURTHER REQUIREMENTS.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			PARALLEL CURB RAMP DIRECTIONAL	CARSON CITY
				DRAWING NO. C-5.3.4
APPROVED BY:		7/09		DATE 7/2009

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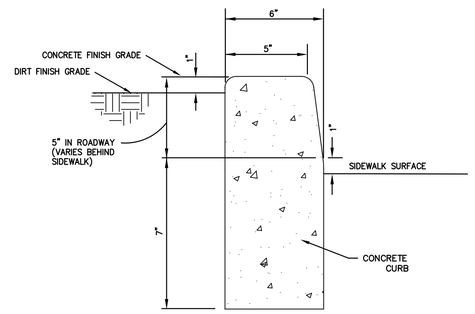

NOTES:

1. NO CONCRETE SHALL BE PLACED UNTIL FORMS AND SUBGRADE ARE INSPECTED BY CARSON CITY PUBLIC WORKS
2. ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DETAIL 5.1.1 AND CONFORM TO SEC. 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			P.C.C. RETAINING CURB	CARSON CITY
				DRAWING NO. C-5.3.10
APPROVED BY:		7/09		DATE 7/2009

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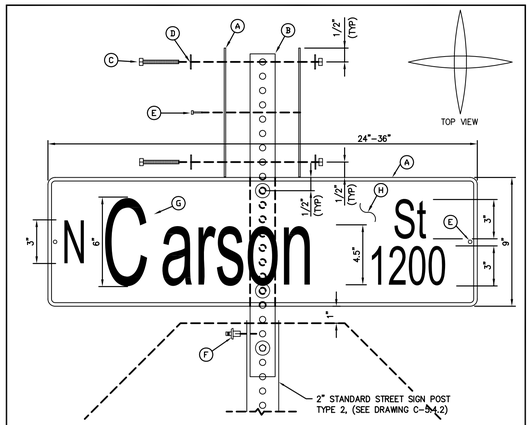

NOTES:

1. STREET NAME SIGN SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE M.U.T.C.D.
2. LETTERING FONT SHALL BE "HIGHWAY EM".
3. SUBMITTAL REQUIRED TO CITY FOR LONGER NAMES OR DROP LETTERS.
4. MATERIALS SHALL CONSIST OF:
   - A. (4) FLAT PLATE ALUMINUM NO. 6061-T6, .080 GAUGE.
   - B. (1) 2-FOOT LONG 1 3/4-INCH "TELESPAR" OR EQUIVALENT
   - C. (4) 2 1/2-INCH LONG, 5/16-INCH SAE GRADE 5 BOLT & NUT
   - D. (8) FLAT WASHERS
   - E. (4) 1/8-INCH DIAMETER, STEEL POP RIVET (MEDIUM LENGTH) WITH 1/8-INCH WASHER (ALUMINUM OR STEEL)
   - F. (1) 3/8-INCH DRIVE RIVET STEEL "SOUTHCO"
   - G. WHITE SHEETING - RETROREFLECTIVE ASTM IX DIAMOND GRADE VIP "3M" OR EQUIVALENT
   - H. GREEN SHEETING - TRANSPARENCY ELETRO CUT FILM 1177C "3M" OR EQUILVALENT

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			STREET NAME SIGN AND MOUNTING	CARSON CITY
				DRAWING NO. C-5.4.1
APPROVED BY:		7/09		DATE 7/2009

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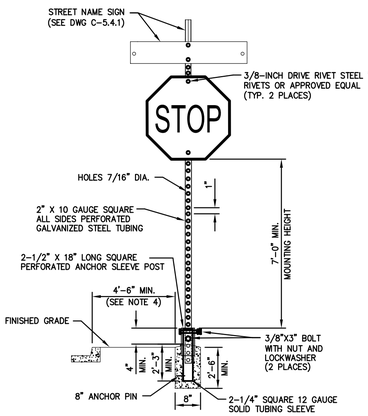

NOTES:

1. SIGN MATERIALS, CONSTRUCTION AND PLACEMENT SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. STREET NAME SIGN SHALL BE AS SPECIFIED IN STANDARD DETAIL DRAWING NO. C-5.4.1
3. ON STREETS WHERE CURBING DOES NOT EXIST, SET SIGN 6 FEET MINIMUM FROM PAVEMENT EDGE.
4. CONCRETE BASE SHALL BE LOCATED AT BACK OF SIDEWALK, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
5. ALL REGULATORY SIGNS SHALL USE ASTM TYPE 3 OR 4 INTENSITY SHEETING.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			TRAFFIC SIGN INSTALLATION	CARSON CITY
				DRAWING NO. C-5.4.2
APPROVED BY:		7/09		DATE 7/2009

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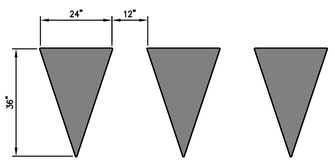

NOTES:

1. ALL STRIPING SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, CURRENT EDITION.
2. ALL PAINTED STRIPING AND PAVEMENT LEGENDS SHALL CONFORM TO CARSON CITY PUBLIC WORKS SPECIFICATIONS.
3. ALL INLAY TAPE STRIPING AND/OR PAVEMENT LEGENDS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
4. YIELD LINE TO BE INSTALLED FROM EDGE OF LANE TO EDGE OF PAVEMENT OR LIP OF CURB.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			YIELD LINE LAYOUT	CARSON CITY
				DRAWING NO. C-5.4.4
APPROVED BY:		7/09		DATE 7/2009

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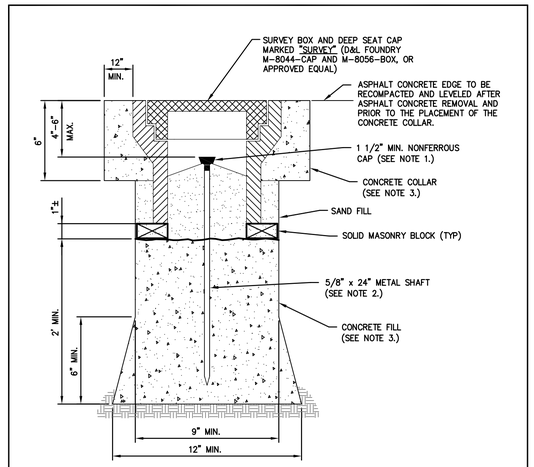

NOTES:

1. 1 1/2 INCH MIN. NONFERROUS CAP WITH PROFESSIONAL LAND SURVEYOR NO. PERMANENTLY ATTACHED PRIOR TO PLACEMENT.
2. 5/8 INCH METALLIC SHAFT (SMOOTH SHAFTS TO BE DEFORMED).
3. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202.
4. PRE-PUNCHED CAPS ARE NOT PERMITTED.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			CLASS "A" SURVEY MONUMENT	CARSON CITY
				DRAWING NO. C-5.5.3
APPROVED BY:		7/09		DATE 7/2009

⑧

Rev. No.	Revision	Date
1		
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6		

REGISTERED PROFESSIONAL ENGINEER — STATE OF NEVADA — W. MICHAEL STEPHENSON — Exp. 06-30-12 — CIVIL — 5755 — Jun 09 2010

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CARSON CITY PUBLIC WORKS DEPARTMENT

CIVIL DETAILS

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet	C4.4
JOB #	060705
DESIGN BY:	MS
DRAWN BY:	KR
CHECKED BY:	MS
DATE:	06/01/10
FILE:	060705CDT.dwg

Wednesday, June 09, 2010 - 3:49pm FILE: Z:\Projects\2006\060705.CC- SO In\DWG\060705CDT.dwg
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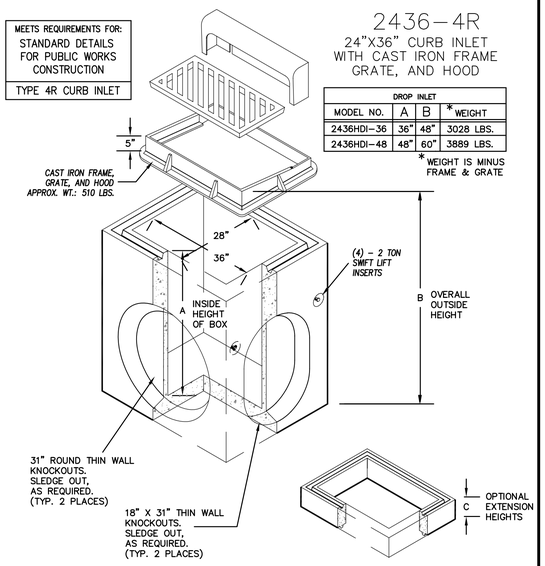
MEETS REQUIREMENTS FOR:
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

TYPE 4R CURB INLET

2436-4R
24"X36" CURB INLET WITH CAST IRON FRAME GRATE, AND HOOD

DROP INLET			
MODEL NO.	A	B	* WEIGHT
2436HDI-36	36"	48"	3028 LBS.
2436HDI-48	48"	60"	3889 LBS.

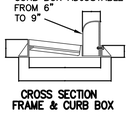
* WEIGHT IS MINUS FRAME & GRATE



DESIGN LOAD:
H-20 TRAFFIC,
UP TO 12' DEPTH.

FOR COMPLETE DESIGN, AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.

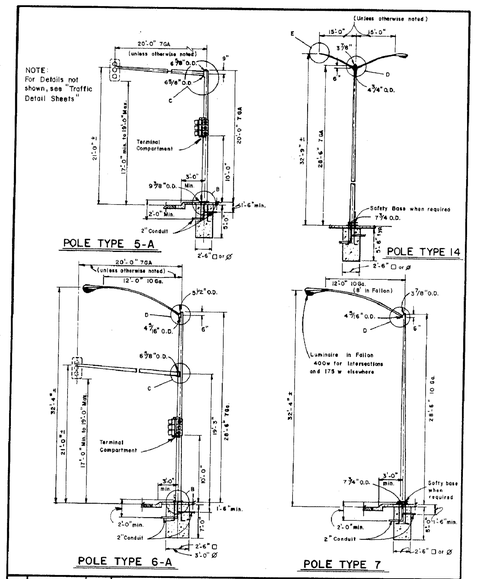
EXTENSION		
MODEL NO.	C	WEIGHT
		450 LBS.
		900 LBS.



CROSS SECTION FRAME & CURB BOX

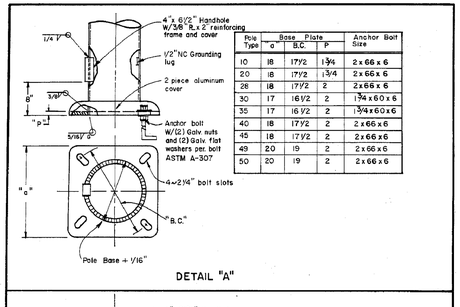
●1994 Jensen Precast 3/16/94

①

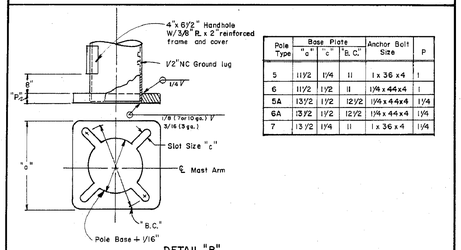


NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION 4
			TRAFFIC POLES TYPE 5-A, 6-A, 7 AND 14	DRAWING NO. 4-3.3 (323)
				DATE 7-81
				PAGE 5

②



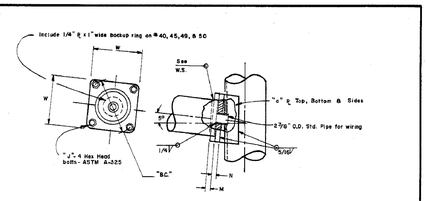
Pole Type	Base Plate a	B.C.	P	Anchor Bolt Size
10	18	17½	1¾	2 x 66 x 6
20	18	17½	1¾	2 x 66 x 6
28	18	17½	2	2 x 66 x 6
30	17	16½	2	1¾ x 60 x 6
35	17	16½	2	1¾ x 60 x 6
40	18	17½	2	2 x 66 x 6
45	18	17½	2	2 x 66 x 6
49	20	19	2	2 x 66 x 6
50	20	19	2	2 x 66 x 6



Pole Type	Base Plate a	c	B.C.	Anchor Bolt Size	P
5	11½	1¼	11	1 x 36 x 4	1
6	11½	1½	11	1¼ x 44 x 4	1
5A	13½	1½	12½	1¼ x 44 x 4	1¼
6A	13½	1½	12½	1¼ x 44 x 4	1¼
7	13½	1¼	11	1 x 36 x 4	1¼

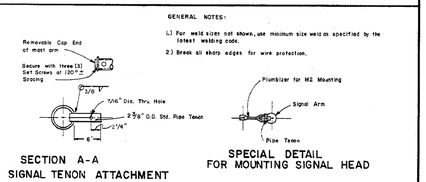
NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION 4
			TRAFFIC DETAIL SHEET BASE DETAILS	DRAWING NO. 4-4.1 (323)
				DATE 7-81
				PAGE 11

③



STANDARD SIGNAL ARM CONNECTION
DETAIL "C"

Pole Type	a	J	W	M	N	B. C.	W. S.
5-A, 6-A and 7	1/4	1" x 8NC x 2½"	8½"	1"	1"	9"	
10 and 20	1/4	SEE TABLE ON TRAFFIC POLE SHEET					
28	1/4	L" 1¼ x 7 NC x 3"	12"	1½"	12"	For 20' 1/4 for 45	1/4 and 5/16
30 and 35	5/16	1½" x 4"	15"	2½"	1½"	15"	5/16
40 and 45	5/16	1¼" x 7NC x 3"	13"	1½"	1¾"	13"	5/16 (on BLUE) & 3/8
49 and 50	5/16	1½" x 6NC x 4"	15"	1¾"	2"	15"	3/16 (on BLUE) & 3/8

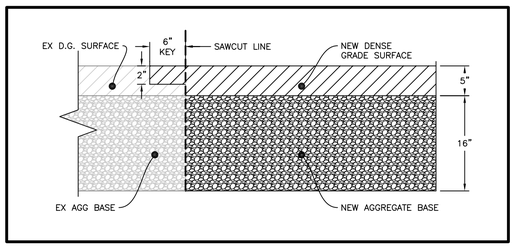


SECTION A-A
SIGNAL TENON ATTACHMENT

SPECIAL DETAIL
FOR MOUNTING SIGNAL HEAD

NO.	REVISION	DATE	STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	SECTION 4
			TRAFFIC DETAIL SHEET SIGNAL ARM DETAILS	DRAWING NO. 4-4.2 (323)
				DATE 7-81
				PAGE 12

④



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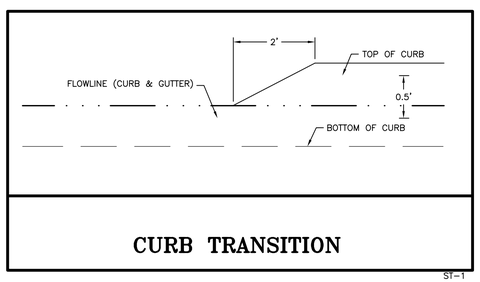
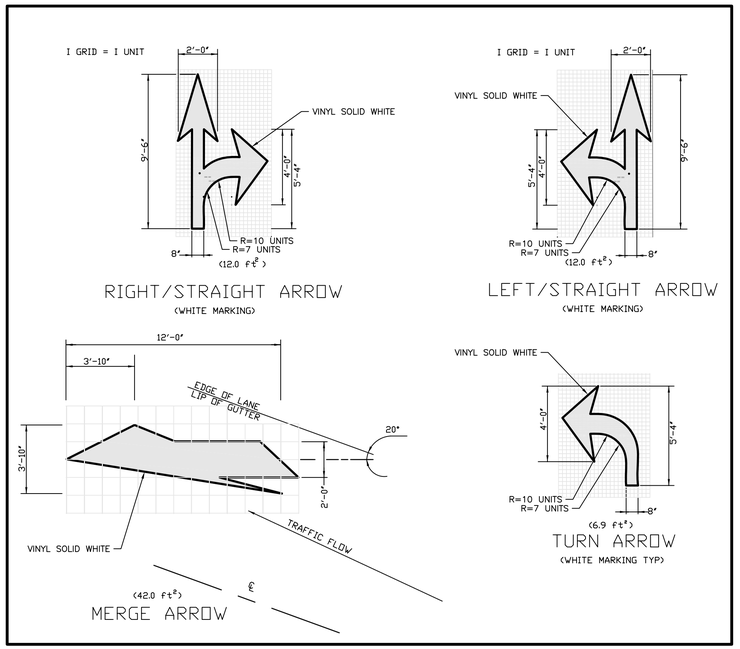


CURB TRANSITION

ST-1

⑥



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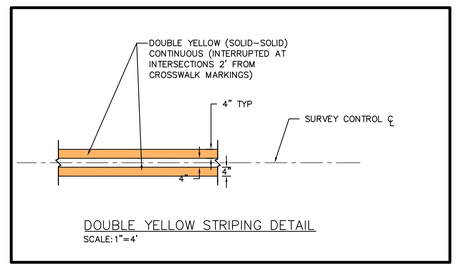

DOUBLE YELLOW STRIPING DETAIL
SCALE: 1"=4'

⑧

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Rev. No.	Revision	Date
A		
B		
C		
D		
E		
F		

REGISTERED PROFESSIONAL ENGINEER W. MICHAEL STEPHENSON Exp. 06-30-12 CIVIL 5755 STATE OF NEVADA
Jun 09 2010

CARSON CITY PUBLIC WORKS DEPARTMENT

CIVIL DETAILS

TYPE IV INTERSECTION
US HWY 395 AND SILVER OAK DRIVE CARSON CITY, NEVADA 89703

Sheet C4.5

JOB #	060705
DESIGN BY:	MS
DRAWN BY:	KR
CHECKED BY:	MS
DATE:	06/01/10
FILE:	060705CDT.dwg

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Wednesday, June 09, 2010 - 3:49pm FILE: Z:\Projects\2006\060705.CC- SO Int\DWG\060705CDT.dwg