

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P SRTS(32)	1	37

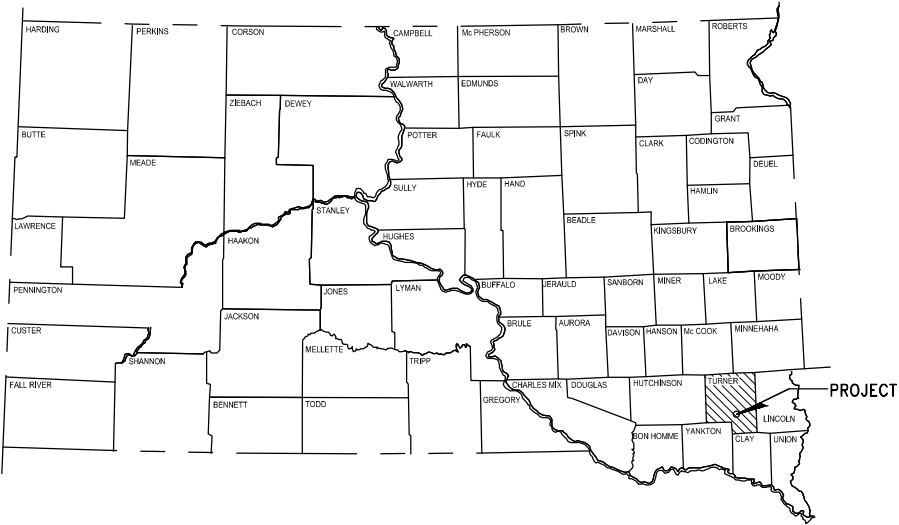
STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
PROJECT P SRTS(32)
VIBORG SAFE ROUTES TO SCHOOL
TURNER COUNTY

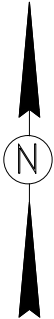
SIDEWALK MODIFICATION, CURB RAMP MODIFICATION,
SIGNING AND PAVEMENT MARKING
PCN 03X4

INDEX OF SHEETS

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PROJECT LOCATION
VIBORG SCHOOL ZONE



SCALES

TITLE LAYOUT	1 INCH = 750 FEET
ROW LAYOUTS	1 INCH = 40 FEET
CURB & GUTTER LAYOUTS	1 INCH = 10 FEET
REMOVAL & INSTALL LAYOUTS	1 INCH = 40 FEET
PAVEMENT MARKING LAYOUTS	1 INCH = 40 FEET

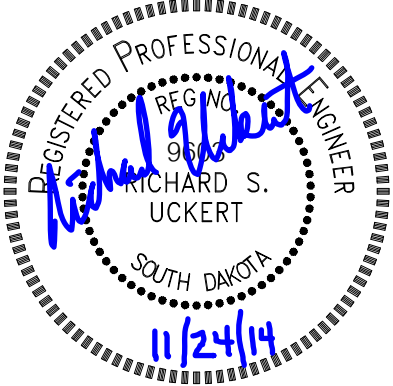
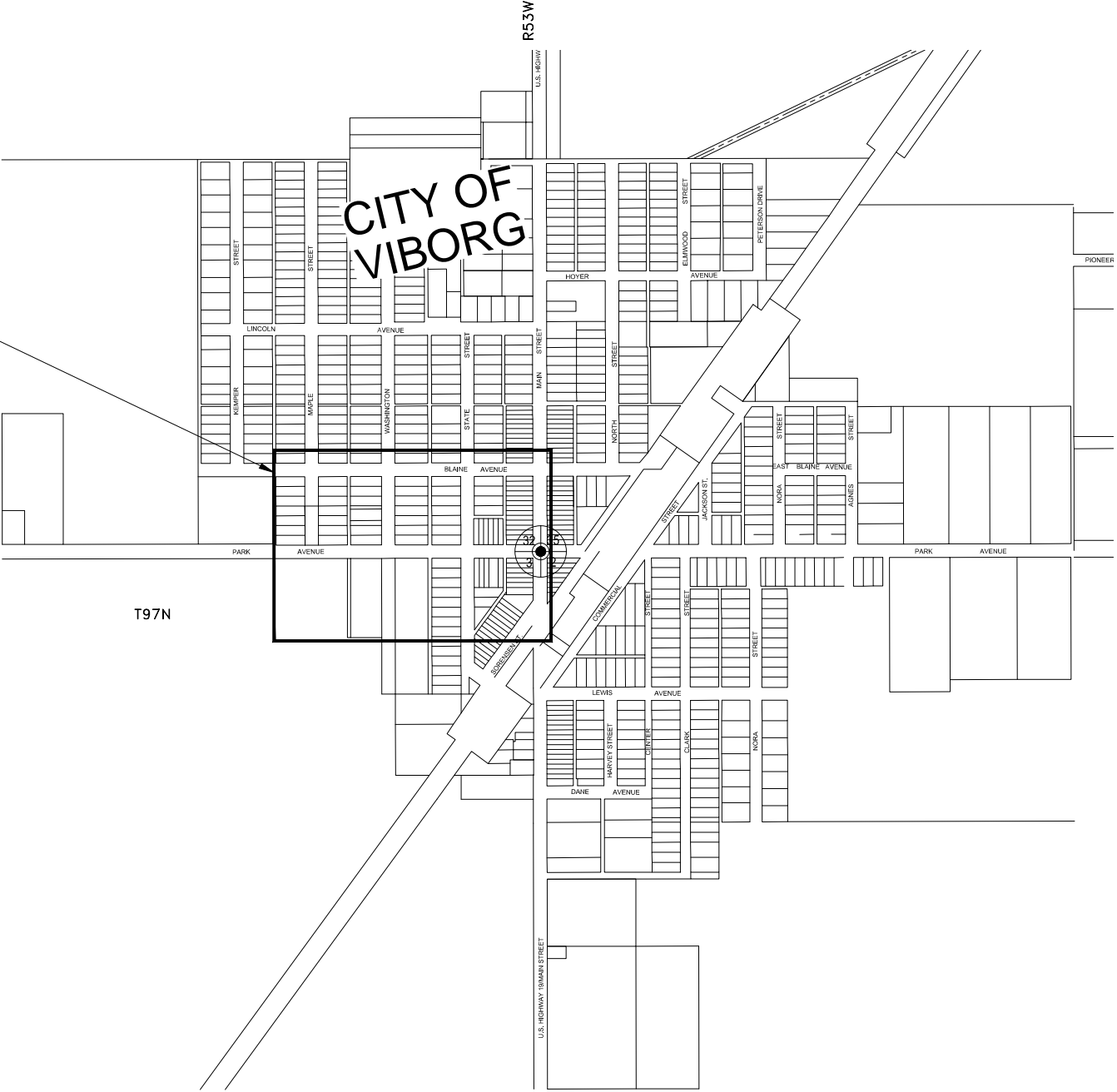
HORIZONTAL DATUM:
- NAD 83
- PROJECTION: SOUTH DAKOTA STATE PLANE
COORDINATES NORTH ZONE

VERTICAL DATUM:
- NAVD 88
- GEOID 09

BASIS OF BEARING: GEODETIC NORTH

ALL DIMENSIONS SHOWN ARE IN
TERMS OF U.S. SURVEY FEET

STORMWATER PERMIT
NONE REQUIRED



ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (32)	2	37

BID ITEM NO.	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and Gutter	33	Ft
110E0310	Remove Concrete Curb	63	Ft
110E0400	Remove Drop Inlet	1	Each
110E1010	Remove Asphalt Concrete Pavement	114.9	SqYd
110E1100	Remove Concrete Pavement	35.5	SqYd
110E1140	Remove Concrete Sidewalk	152.2	SqYd
110E7150	Remove Sign for Reset	6	Each
230E0020	Placing Contractor Furnished Topsoil	20	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
320E1200	Asphalt Concrete Composite	14.2	Ton
380E4050	8" PCC Fillet Section	16.3	SqYd
632E1320	2.0" x 2.0" Perforated Tube Post	148.0	Ft
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	20.0	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	32.4	SqFt
632E3500	Reset Sign	6	Each
632E3520	Remove, Salvage, Relocate, and Reset Traffic Sign	17	Each
633E0030	Cold Applied Plastic Pavement Marking, 24"	280	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	280	Ft
634E0010	Flagging	10	Hr
634E0100	Traffic Control	820	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
635E2000	Pedestal Signal Pole	2	Each
635E4010	1 Section Vehicle Signal Head	4	Each
635E5015	1.5' Diameter Footing	10.0	Ft
635E5301	Type 1 Electrical Junction Box	2	Each
635E5302	Type 2 Electrical Junction Box	2	Each
635E5510	Signal Flasher Unit	2	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E8115	1.5" Rigid Conduit, Schedule 40	470	Ft
635E8215	1.5" Rigid Conduit, Schedule 80	605	Ft
635E9016	1/c #6 AWG Copper Wire	3225	Ft
650E0059	Modified Type B66 Concrete Curb and Gutter	275.0	Ft
650E6080	8" Concrete Valley Gutter	20.0	Ft
651E0040	4" Concrete Sidewalk	2361.2	SqFt
651E7000	Type 1 Detectable Warning	128	SqFt
730E0206	Type D Permanent Seed Mixture	10	Lb
731E0100	Fertilizing	4	Lb
734E0133	Turf Reinforcement Mat	8.0	SqYd
900E5410	Modify Sprinkler System	Lump Sum	LS



ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (32)	3	37

SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

COMMITMENT C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

The Contractor shall not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the SDDOT Environmental Office.

Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all designated option borrow sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

			STATE OF SOUTH DAKOTA	PROJECT P SRTS (32)	SHEET 4	TOTAL SHEETS 37
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SEQUENCE OF OPERATIONS

1. Install temporary traffic control signing.
2. Complete ADA facility improvements at Blaine Avenue and Washington Street.
3. Complete installation of flashing beacon system and connect to power source.
4. Complete ADA facility improvements on Park Avenue.
5. Complete permanent signing installation.
6. Complete permanent pavement marking operations.
7. Complete remaining project items.
8. Remove temporary traffic control signing.

Any changes to the Sequence of Operations require approval from the Engineer.

SCOPE OF WORK

The work required for the project includes, but is not limited to, the following items, not listed in order of execution:

1. Concrete pavement and asphalt concrete pavement removal.
2. Flashing beacon system improvements.
3. ADA pedestrian facility improvements.
4. Permanent signing improvements.
5. Pavement markings.

UTILITIES

The Contractor shall be aware that the existing utilities shown in the plans were surveyed prior to the design of this project and might have been relocated or replaced by a new utility facility prior to construction of this project, might be relocated or replaced by a new utility facility during the construction of this project, or might not require adjustment and may remain in its current location. The Contractor shall contact each utility owner and confirm the status of all existing and new utility facilities. The utility contact information is provided elsewhere in the plans or bidding documents.

UTILITY CONTACTS

South Dakota One Call	All Utilities	800-781-7474
City of Viborg	Water, Sewer	605-326-5103
WOW (Knology)	Telephone, TV	605-766-7793
Fort Randall Telephone	Telephone	605-326-5493
Southeastern Electric	Electric	605-326-5261
T-M Rural Water	Water	605-297-3334

GENERAL MAINTENANCE OF TRAFFIC

The Contractor shall protect all work areas with cones/drums at a minimum spacing of every 10' between the cones/drums.

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the City.

Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. Contractor's employees shall mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the City, and to the satisfaction of the Engineer.

Construction equipment and vehicles working within or adjacent to traffic shall, at all times, display a flashing or revolving amber light to warn the traveling public. Work activities during non-daylight hours are subject to prior approval from the Engineer.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

The alley between Washington Street and Maple Street shall be closed during construction of the sidewalk and valley gutter crossing the alley until the concrete has achieved the required strength. Contractor shall install three Type III barricades and a Road Closed (R11-2) sign on the north and south sides of the work.

TRAFFIC CONTROL

SIGN CODE	SIGN SIZE	DESCRIPTION	NO. REQ'D	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	2	17	34
R9-9	24" x 12"	SIDEWALK CLOSED	4	15	60
R9-10	24" x 12"	SIDEWALK CLOSED with ARROW (L or R), USE OTHER SIDE	4	15	60
R11-2	48" x 30"	ROAD CLOSED	2	27	54
W11-2	36" x 36"	PEDESTRIAN (symbol)	4	27	108
W16-7P	24" x 12"	DOWNWARD DIAGONAL ARROW (PLAQUE)	2	15	30
W16-9P	30" x 18"	AHEAD (PLAQUE)	2	15	30
W20-1	48" x 48"	ROAD WORK AHEAD	2	34	68
W20-4	48" x 48"	ONE LANE ROAD AHEAD	2	34	68
W20-7	48" x 48"	FLAGGER (symbol)	2	34	68
		TYPE III BARRICADE (8' - SINGLE SIDED)	6	40	240
TOTAL UNITS					820

PEDESTRIAN TRAFFIC CONTROL

The existing sidewalks cannot be closed without supplying an alternate route. When crosswalks, sidewalks or other pedestrian facilities are blocked, closed or relocated, temporary facilities shall include accessibility features.

The Contractor shall adhere to the requirements of the Americans with Disabilities Act (ADA) during construction. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG), and should not be used as a control for pedestrian movements.

A smooth, continuous hard surface should be provided throughout the entire length of the temporary pedestrian facility. There should be no curbs or abrupt changes in grade or terrain that could cause tripping or be a barrier to wheelchair use.

A temporary pedestrian ramp shall be provided by the Contractor in all cases where an alternate route cannot be found, and the intersection will carry pedestrian traffic. A suitable ramp would be one made out of wood that is at least 3' wide and no greater than a 12:1 slope. The ramp should be sufficiently sturdy and unyielding with hand rails. The cost of the temporary pedestrian ramps shall be incidental to the cost of the project.

The Contractor shall adequately sign and barricade the sidewalk for pedestrian traffic. The Contractor must not leave un-barricaded holes open either overnight or over the weekend.

The Contractor shall accommodate pedestrian traffic, including those with disabilities. Bicycle traffic shall also be accommodated. The Contractor shall submit a detailed plan to the Engineer on how pedestrian and bicycle traffic will be accommodated during the various phases of the work at the effected locations. This plan should be in conformance with the details contained in these plans for pedestrian accommodation. The plan shall be submitted prior to the Preconstruction Meeting.

Some options for consideration to accommodate the pedestrian traffic include:

1. The use of various approved traffic control devices to maintain the pedestrians through or past the immediate work area,
2. The detour of pedestrians and bicycles to the opposite side of the street, alternate routes(s) or around a City block,
3. Manned crossing assistance (crossing guards) combined with an accessible path.

REGISTERED PROFESSIONAL ENGINEER

REG. NO. 9603

RICHARD S. UCKERT

SOUTH DAKOTA

12/10/14

CLEARING

Work required under this bid item includes removing the shrub near the proposed sidewalk near Sta. 6+25 – Lt. Contractor shall remove the shrub and root base and backfill with topsoil. All labor, tools and materials required to complete is incidental to the lump sum price for “Clearing.”

TABLE OF CONCRETE PAVEMENT REMOVAL

Street	Station to	Station	L/R	Description	Quantity (SqYd)
Park	6+29	6+43	R	Driveway	22.0
Washington	3+92	4+02	R	Fillet	5.7
Washington	4+40	4+50	R	Fillet	7.8
Total:					35.5

TABLE OF ASPHALT CONCRETE PAVEMENT REMOVAL

Street	Station to	Station	L/R	Quantity (SqYd)
Park	4+67	6+47	L	88.9
Park	6+27	6+29	R	1.7
Washington	0+45	0+50	R	1.4
Washington	3+84	4+04	L	6.5
Washington	3+84	4+04	R	6.0
Washington	4+38	4+58	R	5.8
Washington	4+40	4+58	L	4.6
Total:				114.9

TABLE OF CONCRETE CURB REMOVAL

Street	Station to	Station	L/R	Quantity (Ft)
Park	6+32	6+42	L	19
Washington	3+84	4+00	L	25
Washington	4+42	4+58	L	19
Total:				63

Actual curb replacement lengths may be adjusted in the field.

TABLE OF CONCRETE CURB AND GUTTER REMOVAL

Street	Station to	Station	L/R	Quantity (Ft)
Washington	3+84	3+92	R	8
Washington	3+99	3+99	R	9
Washington	4+43	4+43	R	8
Washington	4+50	4+58	R	8
Total:				33

Actual curb replacement lengths may be adjusted in the field.

TABLE OF SIDEWALK REMOVAL

Street	Station to	Station	L/R	Quantity (SqYd)
Park	10+14	10+19	R	3.8
Park	10+15	10+20	L	3.8
Washington	0+43	1+72	L	66.8
Washington	0+45	0+50	R	4.7
Washington	3+73	3+99	L	15.0
Washington	3+89	3+99	R	15.7
Washington	4+39	4+67	L	21.8
Washington	4+43	4+68	R	20.6
Total:				152.2

TABLE OF DROP INLET REMOVAL

Street	Station	L/R	Quantity
Park	4+95	L	1
Total:			1

The contractor shall remove the drop inlet and abandon the outlet pipe. All costs for removal of the casting, the inlet structure, and abandoning the pipe shall be incidental to the contract unit price for “Remove Drop Inlet.”

SURFACING THICKNESS DIMENSIONS

Plans tonnage will be applied even though the thickness may vary from that shown on the plans.

At those locations where material much be placed to achieve a required elevation, plans tonnage may be varied to achieve the required elevation.

SAWING EXISTING SURFACING

Where new asphalt concrete pavement is placed adjacent to existing asphalt concrete, the existing asphalt concrete shall be sawed full depth to a true line with a vertical face. No separate measurement shall be made for sawing.

CONCRETE CURB AND GUTTER, FILLET SECTIONS, AND SIDEWALK

Any excavation required to install the new concrete curb and gutter, valley gutter, fillet sections, and sidewalk shall be incidental to the unit price for the respective bid item.

The Contractor will be allowed to saw out and remove the asphalt concrete surfacing two (2) foot wide in front of the new concrete items to facilitate the installation of the form work.

TABLE OF MODIFIED TYPE B66 CONCRETE CURB AND GUTTER

Street	Station to	Station	Quantity (Ft)
Park	4+87 – 25.7’ L	6+42 – 34.7’ L	167
Park	6+32 – 31.0’ R	6+32 – 39.0’ R	8
Park	6+36 – 26.3’ R	6+43 – 26.3’ R	7
Washington	0+45 – 22.6’ R	0+50 – 22.6’ R	5
Washington	3+84 – 21.4’ L	3+99 – 36.5’ L	27
Washington	3+84 – 21.4’ R	3+92 – 21.4’ R	8
Washington	3+99 – 28.8’ R	3+99 – 37.8’ R	9
Washington	4+42 – 36.5’ L	4+58 – 21.4’ L	28
Washington	4+43 – 29.0’ R	4+43 – 37.0’ R	8
Washington	4+50 – 21.4’ R	4+58 – 21.4’ R	8
			275

TABLE OF 8” CONCRETE VALLEY GUTTER

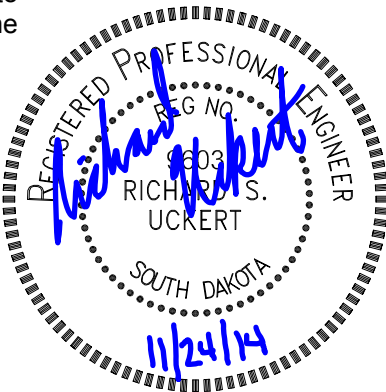
Street	Station to	Station	Width	Quantity (Ft)
Park	4+67 – 25.5’ L	4+87 – 25.5’ L	4	20
			Total:	20

8” PCC FILLET SECTIONS

Payment for “8” PCC Fillet Section” shall be based on plans quantity. If additions or reductions to the area of PCC fillet sections are ordered by the Engineer, payment will be made in accordance with the contract unit price per square yard for “8” PCC Fillet Section”.

TABLE OF 8" PCC FILLET SECTION

Street	Station to	Station	L/R	Radius (Ft)	Quantity (SqYd)
Park	6+29	6+37	R	5.0	3.7
Washington	3+92	4+02	R	7.5	6.3
Washington	4+40	4+50	R	7.5	6.3
Total:					16.3



ASPHALT CONCRETE COMPOSITE

Mineral aggregate for the Asphalt Concrete Composite shall conform to the requirements for Class E, Type 1.

All other requirements in the Standard Specifications for Asphalt Concrete Composite shall apply.

The asphalt binder used in the mixture shall be PG 64-22 or PG 64-28 Asphalt Binder.

SUMMARY OF ASPHALT CONCRETE COMPOSITE

Street	Station	to	Station	L/R	Quantity (Ton)
Park	4+68		6+47	L	7.0
Park	6+28		6+28	R	0.7
Washington	0+45		0+50	R	0.2
Washington	3+84		3+99	L	1.1
Washington	3+84		3+99	R	1.0
Washington	4+42		4+58	L	3.2
Washington	4+43		4+58	R	1.0
Total:					14.2

PLACING CONTRACTOR FURNISHED TOPSOIL

It is anticipated that a larger volume of topsoil will be needed for the new grade than can be salvaged from the existing grade. The Contractor will be required to furnish and place 4 inches of topsoil on roadway inslopes and areas as determined by the Engineer during construction.

All costs to furnish and place the topsoil shall be incidental to the contract unit price per cubic yard for "Placing Contractor Furnished Topsoil".

REMOVE AND REPLACE TOPSOIL

Topsoil shall also be salvaged and stockpiled prior to constructing the pedestrian facility improvements. Limits of this work, depth of salvage, and stockpile location will be directed by the Engineer. Following completion of construction, topsoil shall be spread evenly over the disturbed areas.

The estimated amount of topsoil to be removed and replaced is 5 CuYd.

All cost associated with removing and replacing the topsoil along areas to be resurfaced shall be incidental to the lump sum price for "Remove and Replace Topsoil".

MYCORRHIZAL INOCULUM

Mycorrhizal inoculum shall consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier shall provide certification of the fungal species claimed and the live propagule count. The inoculum shall include the following fungal species:

<i>Glomus intraradices</i>	25%
<i>Glomus aggregatu</i>	25%
<i>Glomus mosseae</i>	25%
<i>Glomus etunicatum</i>	25%

All seed shall be inoculated with a minimum of 20,000 live propagules of mycorrhizal fungi per 1,000 square feet. All costs of inoculating the seed shall be incidental to the contract unit price per pound for the corresponding permanent seed mixture.

The mycorrhizal inoculum shall be from the list below or an approved equal:

Product	Manufacturer
MycApply	Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 http://www.mycorrhizae.com/

FERTILIZING

A commercial fertilizer with a minimum guaranteed analysis of 13-13-13, 18-46-0, 11-52-0, or an approved alternate fertilizer sold for use as a lawn starter fertilizer shall be applied to all areas designated for permanent seeding. The application rate of fertilizer shall be 3 pounds per 1000 square feet.

DRILLS

In addition to the drills specified in Section 730 of the Specifications, other types of drills including no-till drills will be allowed as long as they have baffles, partitions, agitators, or augers which keep the seed distributed throughout the seed box and the seed is planted at a depth of ¼" to ½".

PERMANENT SEEDING

The areas to be seeded comprise of all newly graded areas within the project limits except for the top of roadways and temporary easements under cultivation.

All permanent seed shall be planted in the topsoil at a depth of ¼" to ½".

All seed broadcast must be raked or dragged in (incorporated) within the top ¼" to ½" of topsoil when possible. This requirement may be waived by the Engineer during construction when raking or dragging is deemed not feasible by conventional methods.

The varieties listed for the seed mixture are preferred varieties.

Native harvest seed will be allowed. The number of acres to be seeded is 0.033.

Type D Permanent Seed Mixture shall consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/1000 SqFt)
Kentucky Bluegrass	Alene, Avalanche	1.4
Perennial Ryegrass	Turf Type, Ascend	1.4
Creeping Red Fescue	Epic	1.4
Chewings Fescue	Ambrose	1.4
Alkali Grass	Fults, Fults II, Quill, Salty	1.4
Total:		7

TURF REINFORCEMENT MAT

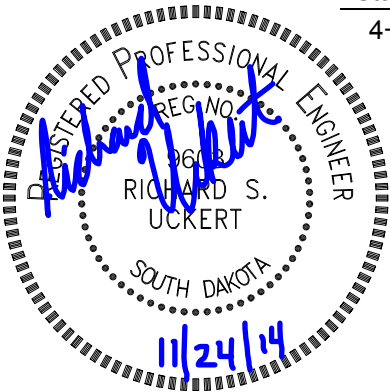
Turf Reinforcement Mat shall be installed at locations shown in the table at the widths specified, and at locations determined by the Engineer during construction. The Contractor shall use a turf reinforcement mat from the approved products list. The approved product list for turf reinforcement mat may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>

Installation of the Turf Reinforcement Mat shall be according to the manufacturer's installation instructions.

TABLE OF TURF REINFORCEMENT MAT

Station	to	Station	Location	L/R	Width (Ft)	Quantity (SqYd)
4+55		4+66	End of Valley Gutter	L	6.5	8.0
Total:						8.0



STATE OF SOUTH DAKOTA		PROJECT		SHEET	TOTAL SHEETS
		P SRTS (32)		8	37

PAVEMENT MARKING

The pavement marking material shall be as defined in Section 983 of the Specifications.

GROOVE PAVEMENT FOR PAVEMENT MARKING

The Contractor shall establish a positive means for the removal of the grinding and/or grooving residue. Solid residue shall be removed from the pavement surfaces before being blown by traffic action or wind. Residue shall not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, shall be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state.

SUPPLYING AS BUILT PLANS

If the traffic signal systems or roadway lighting systems are constructed differently than what is stated in the plans, the Contractor shall supply as built plans to the Engineer and a copy shall be sent to the Traffic Design Engineer. The as built plans may include conduit layouts, wiring diagrams, or other drawings depicting the changes from the original plans.

SHOP DRAWING AND CATALOG CUTS SUBMITTALS

The Contractor shall submit shop drawings and catalog cuts in accordance with Section 985 of the Standard Specifications or in Adobe PDF format.

Adobe PDF submittals shall be sent to the following email addresses:

Blake.Ahlers@state.sd.us

Stacy.Bartlett@state.sd.us

Pete.Longman@state.sd.us

John.Less@state.sd.us

ON-SITE INSPECTION

An on-site inspection of the traffic signals shall be conducted before acceptance of the project, once the traffic signals are completed and operational. The on-site inspection shall be conducted by the Project Engineer or Region Traffic Engineer with the Contractor, and the Traffic Design Engineer present.

BREAKAWAY BASES

A statement is required, signed by a Professional Engineer registered in the State of South Dakota, certifying that the breakaway base devices meet the design requirements, including breakaway and structural adequacy, of the "AASHTO Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals". The physical testing procedures outlined in Section 8 of the Fifth Edition of the Aluminum Association's "Specifications for Aluminum Structures" may be used to establish service limits for structural adequacy certification of aluminum breakaway transformer bases and frangible couplings. If requested, test data of production samples to support the certification shall be provided.

SIGNAL AIMING AND TREE TRIMMING

Signals shall be aimed and trees shall be trimmed such that all the signals shall be continuously visible for the minimum distance listed in the table in Section 4D.12 of the MUTCD.

PERMANENT SIGNING

All sign materials and installation procedures shall be as shown on the plans sheets and shall comply with Sections 632 and 982 of the SD DOT Standard Specifications for Roads and Bridges.

All sign legend, border, and background sheeting material shall meet or exceed standards for ASTM D 4956 classified Type III high intensity sheeting or Type IX or Type XI super/very high intensity (diamond graded) microprismatic sheeting, as indicated in the plans.

The Contractor shall affix a date decal to each sign installed. Each decal is a self-adhesive sticker approximately 2" X 2" with removable paper backing and black numerals on a white background. The date decal displays the last two digits of the year the sign was manufactured (as illustrated).

15

One decal shall be placed in the extreme lower left corner of the back of flat aluminum signs. Sign supports or other obstructions shall not block the view of the date decal upon completion of the sign installation.

All costs, labor and materials for furnishing and installing of date decals on new signs shall be incidental to the various signing bid items.

All costs, labor and materials for furnishing and installing the signs as shown on the plans shall be included in the appropriate bid item of either "Flat Aluminum Sign, Nonremovable Copy High Intensity" or "Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity".

REMOVE SIGN FOR RESET/RESET SIGN

The Contractor shall remove for reset and reset signs on the project listed in the Table of Remove Sign for Reset/Reset Sign. Damage or misplaced signs and/or posts shall be replaced by the contractor at no expense to the SD DOT or the City of Viborg.

TABLE OF REMOVE SIGN FOR RESET/RESET SIGN

Street	Station	L/R	Quantity	Comment
Park	5+48	L	1	No Parking
Park	5+88	L	1	No Parking
Park	6+24	L	1	No Parking
Washington	0+53	L	1	Stop/Street Marker
Washington	3+99	L	1	Stop
Washington	4+49	R	1	Stop/Street Marker
Total:			6	

REGISTERED PROFESSIONAL ENGINEER

NO. 9603

RICHARD S. UCKERT

SOUTH DAKOTA

12/10/14

TABLE OF REMOVE, SALVAGE, RELOCATE & RESET TRAFFIC SIGN

The Contractor shall remove, salvage, and relocate signs on the project as shown in the table below. Damaged or misplaced signs shall be replaced by the contractor at no expense to the SD DOT or the City of Viborg. Stations and offsets in the table below reference Park Avenue. Stationing is approximate and shall be adjusted accordingly in the field.

Sign/Plaque	Sta. & Offset	Proposed Sta. & Offset	Quantity
School Sign	2+66 – R	4+84 – 31' R	1
Ahead Plaque	2+66 – R	4+84 – 31' R	1
School Sign	4+84 – R	6+32 – 31' R	1
Diagonal Arrow Plaque	4+84 – R	6+32 – 31' R	1
Hospital Assembly	6+37 – L	6+03 – 31' R	3
Hospital Assembly	6+37 – L	7+08 – 24' L	3
School Sign	7+08 – L	6+37 – 24' L	1
Diagonal Arrow Plaque	7+08 – L	6+37 – 24' L	1
School Sign	10+17 – L	8+08 – 24' L	1
Ahead Plaque	10+17 – L	8+08 – 24' L	1
Stop Sign/Street Sign	10+17 – L	10+17 – 40' L	1
Street Signs	10+17 – L	10+17 – 40' L	2
Total:			17

Remaining signs within the project limits will be removed by the City of Viborg.

TABLE OF FLAT ALUMINUM SIGN, NONREMOVABLE COPY HIGH INTENSITY

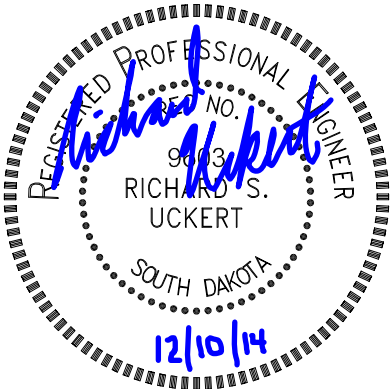
Sign/Plaque (MUTCD)	Sta. & Offset	Size	Quantity (SqFt)
End School Zone (S5-2)	2+84 – 20' L	24" x 30"	5.0
Speed Limit 25 (R2-1)	2+84 – 20' L	24" x 30"	5.0
End School Zone (S5-2)	10+17 – 33' R	24" x 30"	5.0
Speed Limit 25 (R2-1)	10+17 – 33' R	24" x 30"	5.0
Total:			20.0

Station and offset reference Park Avenue. Stationing is approximate and shall be adjusted accordingly in the field. All signs in the table will be installed on a 2.0" x 2.0" perforated tube post.

TABLE OF FLAT ALUMINUM SIGN, NONREMOVABLE COPY SUPER/VERY HIGH INTENSITY

Sign/Plaque (MUTCD)	Number	Size	SqFt	Total (SqFt)
School Sign (S1-1)	2	36" x 36"	6.8	13.6
School Speed Limit 15 When Flashing (S5-1)	2	24" x 48"	8.0	16.0
Supplemental School Plaque (S4-3p)	2	24" x 8"	1.4	2.8
Total:				32.4

Refer to School Zone Signing and Flashing Beacons detail for installation locations.



	STATE OF SOUTH DAKOTA	PROJECT P SRTS (32)	SHEET 9	TOTAL SHEETS 37
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PERFORATED TUBE POST

Measurement of post lengths for payment will be for above ground post lengths as field measured. The sign post contract items shall include post bases and all hardware. Post lengths in the table are approximate. The post lengths shall be verified by the Contractor. The Contractor is urged to cut posts to length on job site after verification of post length. The installation height of the signs shall not exceed the minimum by more than 0.5 feet.

Payment for 2.0" x 2.0" perforated tube post shall include all cost for labor, equipment, and materials necessary to complete the following work:

1. Furnish all posts, stiffeners, breakaway bases, soil stabilizers, and hardware.
2. Assembly and installation of breakaway sign supports as per details shown in these plans.
3. Assembly of sign to sign post as per erection details for Highway signs as shown in these plans.
4. Installation of sign post and sign.

TABLE OF PERFORATED TUBE POST

Sign Assembly	Number	Sta. & Offset	Number	Total Length (Ft)
School/School Plaque		0+34 – 20' R	2	32.0
End School Zone/		2+84 – 20' L	1	13.0
Speed Limit 25				
School/Ahead		4+84 – 31' R	2	32.0
Hospital Assembly		6+03 – 31' R	1	8.0
Hospital Assembly		7+08 – 24' L	1	8.0
School/Directional Arrow		6+32 – 31' R	2	18.0
End School Zone/		10+17 – 33' R	1	10.0
Speed Limit 25				
Stop Sign/Street Sign		10+17 – 40' L	1	9.0
School/School Plaque		11+17 – 33' L	2	18.0
				Total: 148.0

Station and offset reference Park Avenue.

MISCELLANEOUS, ELECTRICAL

The Contractor shall provide all necessary materials, labor, and equipment to install the flashing beacon system and make connection to the power source by conforming to local electrical building codes. Payment for all materials, labor, and equipment not specifically identified through other bid items shall be included in the lump sum cost for "Miscellaneous, Electrical."

BEACON SIGNAL HEADS

The flashing beacon signal heads shall be fabricated from ultraviolet stabilized polycarbonate. The beacon lenses shall be yellow in color and shall be glass. Each flashing beacon signal head shall consist of a yellow body with a black door and black tunnel visor.

Steel beacon supports shall be galvanized. Metal support plates shall be installed in the base of each of the upper 1 section vehicle signal heads for additional strength. The beacons shall flash alternatively at each location. One beacon shall be mounted 12" above each of the S5-1 signs and one beacon shall be mounted below the S5-1 sign per the Special Details. Cost for furnishing and installing the 12" Beacon Signal Heads shall be incidental to the contract unit price per each for "1 Section Vehicle Signal Head".

BEACON AIMING

The flashing yellow beacons shall be aimed to be visible to approaching traffic for a minimum distance of ¼ mile.

BEACON SIGNAL HEADS

Footing and pedestal signal pole design shall be in accordance with Section 635 of the Standard Specifications and the details in these plans.

Pedestal bases and poles shall be manufactured from aluminum with a brushed aluminum finish. A metal strengthening sleeve between the pole and the pedestal base connection may be necessary to meet wind loading requirements.

Cost for furnishing and installing the pedestal signal pole shall be incidental to the contract unit price per each for "Pedestal Signal Pole".

FLASHERS, TIME CLOCKS, AND CABINETS

The flashing amber beacons shall be programmed to flash at 7:15 - 8:15 and 15:00 - 16:00 on weekdays and only during the school year and shall exclude holidays. The Contractor shall make all necessary connections to make the flasher system operational.

The flasher units shall meet the NEMA specifications for Type 3 flashers. The flasher units shall provide two output circuits for alternative flashing capability.

The flasher relay shall be Double Pole Double Throw in design with 20 amp contacts and shall be encapsulated for dust free operation.

The time clock shall be solid state with 365 day programmable timer with 12 holiday periods, daylight savings time change capability, and battery back-up memory.

Costs for furnishing and installing the flashers shall be incidental to the contract unit price per each for "Signal Flasher Unit".

The contractor shall connect to the power source in the Viborg School greenhouse. The contractor shall remove the existing flashing beacon system at the light pole at the intersection of Park Avenue and Washington Street. Costs for removal of the existing flashing beacons shall be incidental to other bid item costs. The Contractor shall coordinate with Herman Wurtz (maintenance) or Rob Sylliassen (superintendent) at (605) 766-5418 with the Viborg School District to make the electrical connection.

SPRINKLER SYSTEMS

There may be locations along the project where sprinkler systems will be encountered during construction. The Contractor shall repair any damaged sprinkler systems to the extent that the functionality of the sprinkler system is retained after the project is complete at no additional cost to the owner.

Where replacement is necessary, the existing system shall be replaced with the appropriate materials. All costs associated with the repair and replacement of the sprinkler system shall be incidental the contract lump sum price for "Modify Sprinkler System."

Locations where pedestrian facility improvements will take place and sprinkler systems have been verified include:

200 N Washington Street – approximate relocation of 6 sprinkler heads and ¾" to 1" diameter pipe

CONTROL DATA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (32)	10	37

HORIZONTAL AND VERTICAL CONTROL POINTS

POINT	STREET	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP CURB	PARK	4+69	49' R	5/8" X 18" REBAR	321930.884	2834797.530	1297.90
CP STOP	WASHINGTON	0+73	23' L	5/8" X 18" REBAR	322041.516	2834963.987	1302.23
CP SILVER	WASHINGTON	4+35	36' L	5/8" X 18" REBAR	322402.655	2834935.001	1304.99
CP YIELD	WASHINGTON	4+37	344' L	5/8" X 18" REBAR	322391.153	2834627.636	1302.51

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System.
South Zone (NAD 83/07) SF = 0.9999371545
The elevations shown on this sheet are based on NAVD 88.



RIGHT-OF-WAY EASEMENT OWNERSHIP TABLE

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P SRTS(32)	11	37

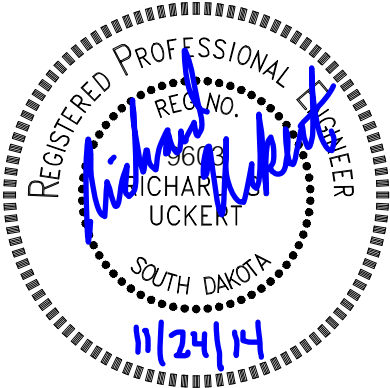
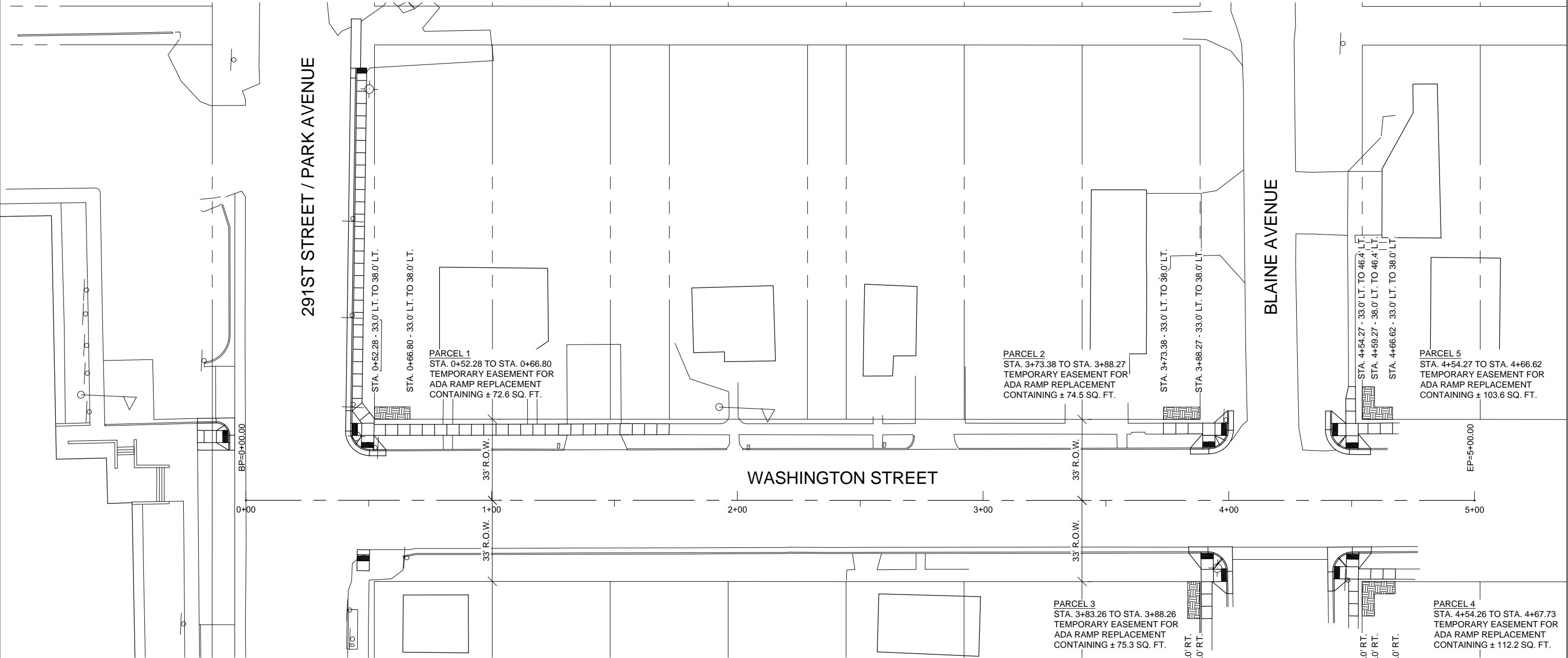
PARCEL	STATION TO STATION*	SIDE	TYPE	PURPOSE	AREA	OWNER	DESCRIPTION
1	0+52.28 TO 0+66.80	LT	TEMPORARY	ADA RAMP REPLACEMENT	72.6 SQ. FT.	JAMES L. & BETH GANN	LARSENS 2ND ADDITION, LOTS 1 & 2, SOUTH 1/2 OF LOT 3, BLOCK 1 SECTION 34-T97N-R53W - CITY OF VIBORG, TURNER COUNTY, SOUTH DAKOTA
2	3+73.38 TO 3+88.27	LT	TEMPORARY	ADA RAMP REPLACEMENT	74.5 SQ. FT.	ROBERT M. & BARBARA K. MILLER	LARSENS 2ND ADDITION, LOTS 6 & 7, BLOCK 1 SECTION 34-T97N-R53W - CITY OF VIBORG, TURNER COUNTY, SOUTH DAKOTA
3	3+83.26 TO 3+88.26	RT	TEMPORARY	ADA RAMP REPLACEMENT	75.3 SQ. FT.	LANCE DEAN BULTENA & JAYNE PARSONS BULTENA	LARSENS 2ND ADDITION, NORTH 36' WEST 1/2 OF LOT 6 & WEST 1/2 OF LOT 7, BLOCK 2, SECTION 34-T97N-R53W - CITY OF VIBORG, TURNER COUNTY, SOUTH DAKOTA
4	4+54.26 TO 4+67.73	RT	TEMPORARY	ADA RAMP REPLACEMENT	112.2 SQ. FT.	ROSS M. & CARLEE D. MILLER	LARSENS 1ST ADDITION, WEST 1/2 LOT 1 & LOT 2, BLOCK 2 SECTION 34-T97N-R53W - CITY OF VIBORG, TURNER COUNTY, SOUTH DAKOTA
5	4+54.27 TO 4+66.62	LT	TEMPORARY	ADA RAMP REPLACEMENT	103.6 SQ. FT.	LUJEAN WEEG & HERMAN NELSON	LARSENS 1ST ADDITION, LOT 1 & SOUTH 1/2 OF LOT 2, BLOCK 1 SECTION 34-T97N-R53W - CITY OF VIBORG, TURNER COUNTY, SOUTH DAKOTA

*NOTE:
ALL STATIONING REFERENCES TO WASHINGTON STREET

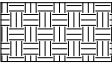


RIGHT-OF-WAY PLAN
WASHINGTON STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P SRTS(32)	12	37



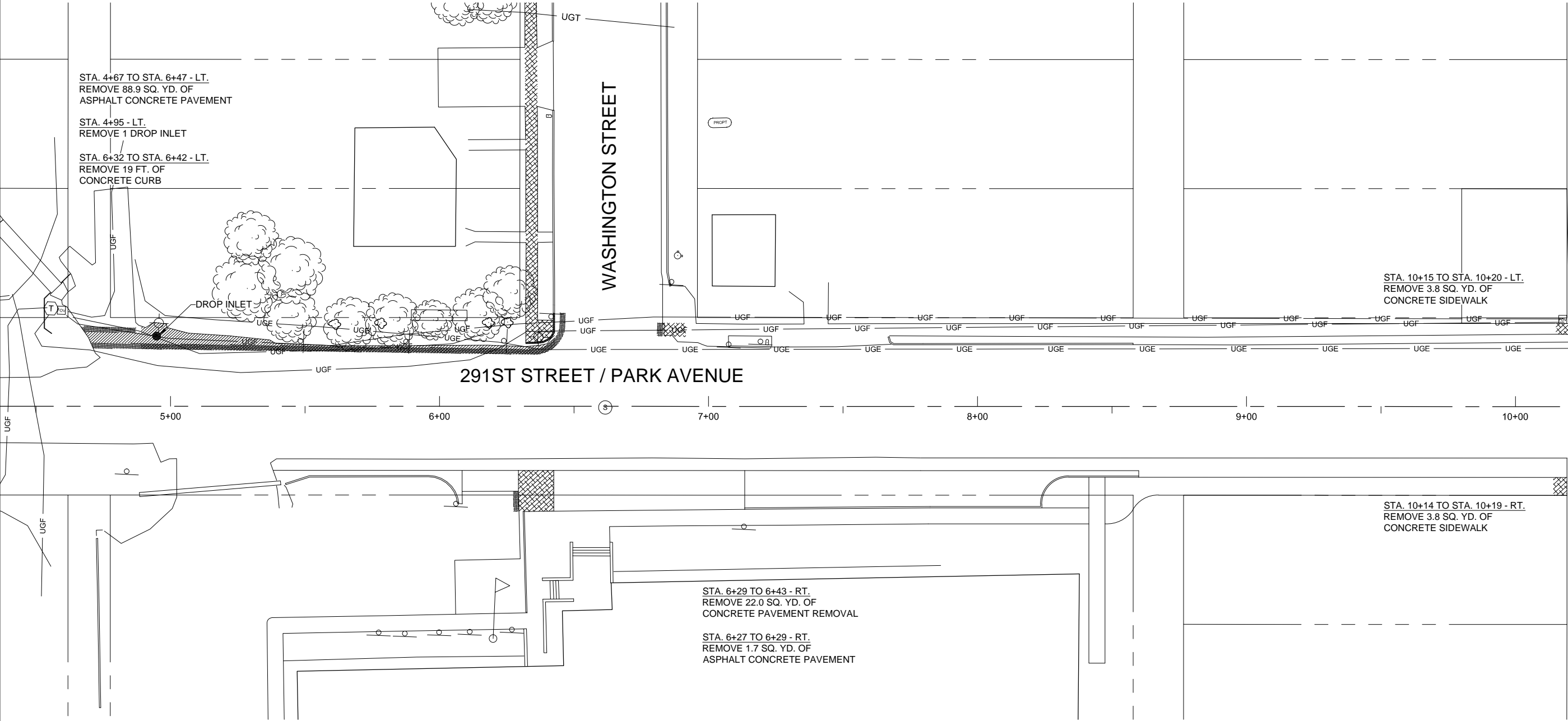
LEGEND:



TEMPORARY EASEMENT

REMOVAL PLAN
291ST STREET / PARK AVENUE
STA. 2+00 TO 8+00

STATE OF SOUTH DAKOTA	PROJECT P SRTS(32)	SHEET No.	TOTAL SHEETS
		13	37

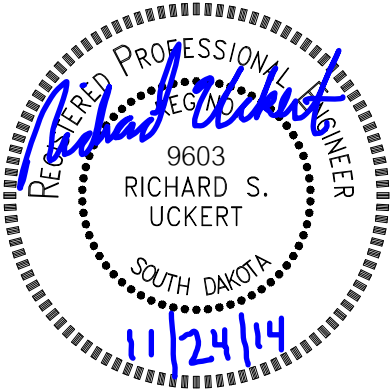


LEGEND:

— UGE —	EXISTING UNDERGROUND ELECTRIC		EXISTING WATER VALVE		EXISTING TELEPHONE PEDESTAL
— UGF —	EXISTING FIBER OPTIC LINE		EXISTING CURB STOP		EXISTING FIBER OPTIC VAULT
— UGT —	EXISTING UNDERGROUND TELEPHONE		EXISTING FIRE HYDRANT		EXISTING PROPANE TANK
	EXISTING SANITARY SEWER MANHOLE		EXISTING STREET LIGHT		EXISTING DECIDUOUS TREE
	EXISTING STORM SEWER MANHOLE		EXISTING MAILBOX		EXISTING CONIFEROUS TREE
			EXISTING SIGN		EXISTING FLAG POLE

REMOVAL LEGEND:

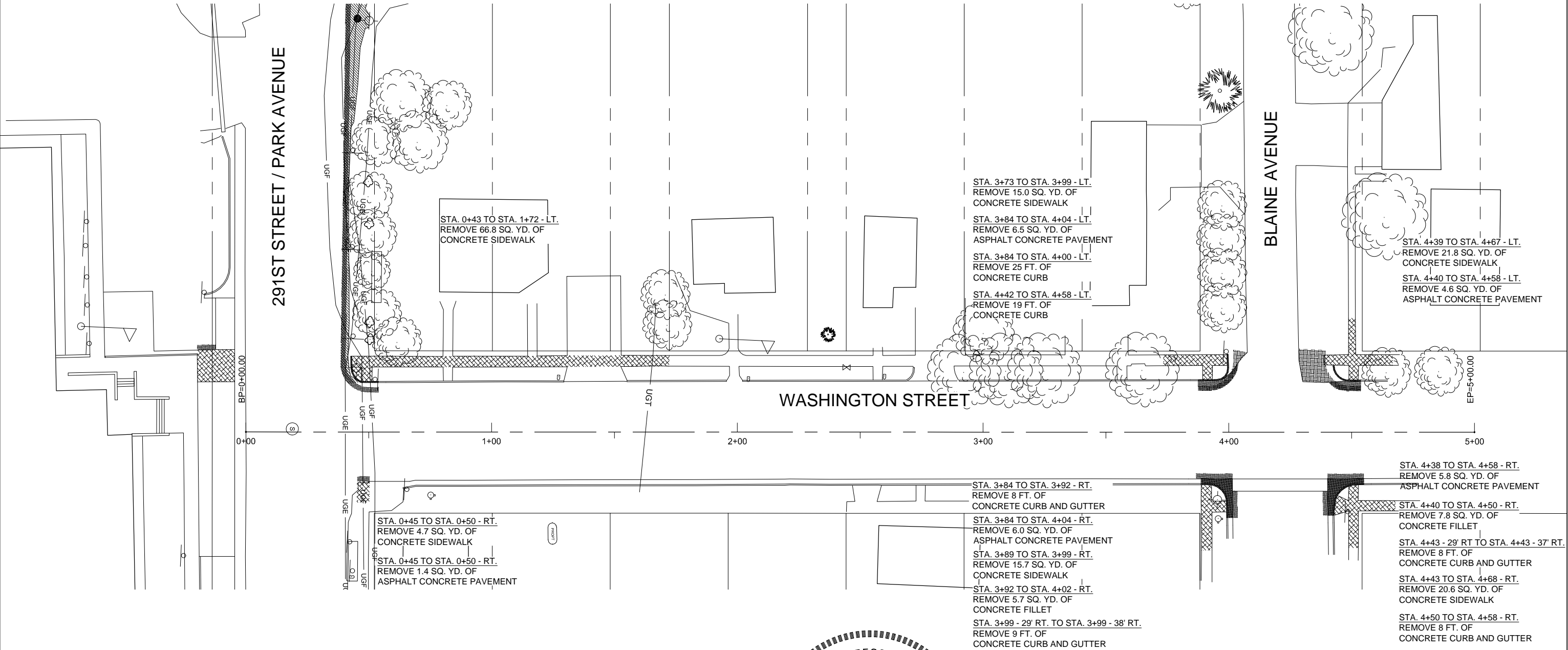
	CURB, GUTTER AND FILLET REMOVAL
	SIDEWALK/CONCRETE PAVEMENT REMOVAL
	FULL-DEPTH REMOVAL
	SOD REMOVAL



REMOVAL PLAN

WASHINGTON STREET
STA. 0+00 TO STA. 5+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P SRTS(32)	14	37

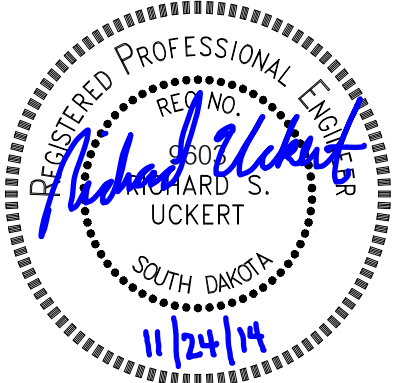


LEGEND:

— UGE —	EXISTING UNDERGROUND ELECTRIC	⊗	EXISTING WATER VALVE	⬡	EXISTING TELEPHONE PEDESTAL
— UGF —	EXISTING FIBER OPTIC LINE	⊗	EXISTING CURB STOP	⬡	EXISTING FIBER OPTIC VAULT
— UGT —	EXISTING UNDERGROUND TELEPHONE	⊗	EXISTING FIRE HYDRANT	⬡	EXISTING PROPANE TANK
(S)	EXISTING SANITARY SEWER MANHOLE	⊗	EXISTING STREET LIGHT	⬡	EXISTING DECIDUOUS TREE
(ST)	EXISTING STORM SEWER MANHOLE	⊗	EXISTING MAILBOX	⬡	EXISTING CONIFEROUS TREE
		⊗	EXISTING SIGN	⬡	EXISTING FLAG POLE

REMOVAL LEGEND:

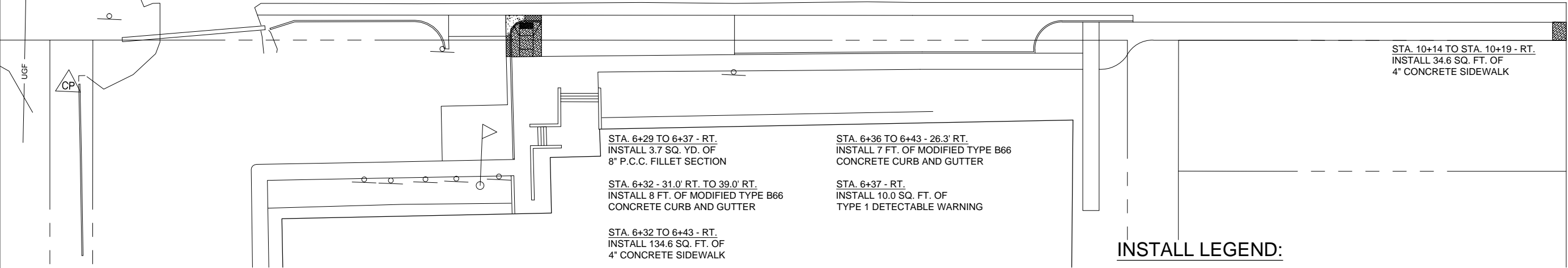
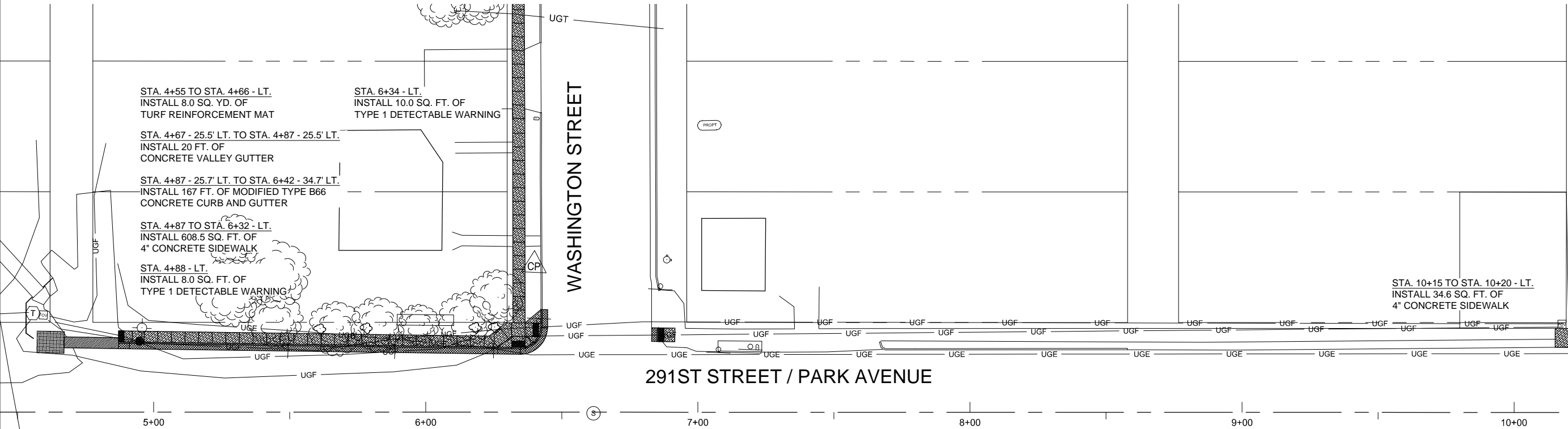
	CURB, GUTTER AND FILLET REMOVAL
	SIDEWALK/CONCRETE PAVEMENT REMOVAL
	FULL-DEPTH REMOVAL
	SOD REMOVAL



INSTALLATION PLAN

291ST STREET / PARK AVENUE
STA. 2+00 TO 8+00

STATE OF SOUTH DAKOTA	PROJECT P SRTS(32)	SHEET No.	TOTAL SHEETS
		15	37



LEGEND:

— UGE —	EXISTING UNDERGROUND ELECTRIC		EXISTING WATER VALVE		EXISTING TELEPHONE PEDESTAL
— UGF —	EXISTING FIBER OPTIC LINE		EXISTING CURB STOP		EXISTING FIBER OPTIC VAULT
— UGT —	EXISTING UNDERGROUND TELEPHONE		EXISTING FIRE HYDRANT		EXISTING PROPANE TANK
	EXISTING SANITARY SEWER MANHOLE		EXISTING STREET LIGHT		EXISTING DECIDUOUS TREE
	EXISTING STORM SEWER MANHOLE		EXISTING MAILBOX		EXISTING CONIFEROUS TREE
			EXISTING SIGN		EXISTING FLAG POLE

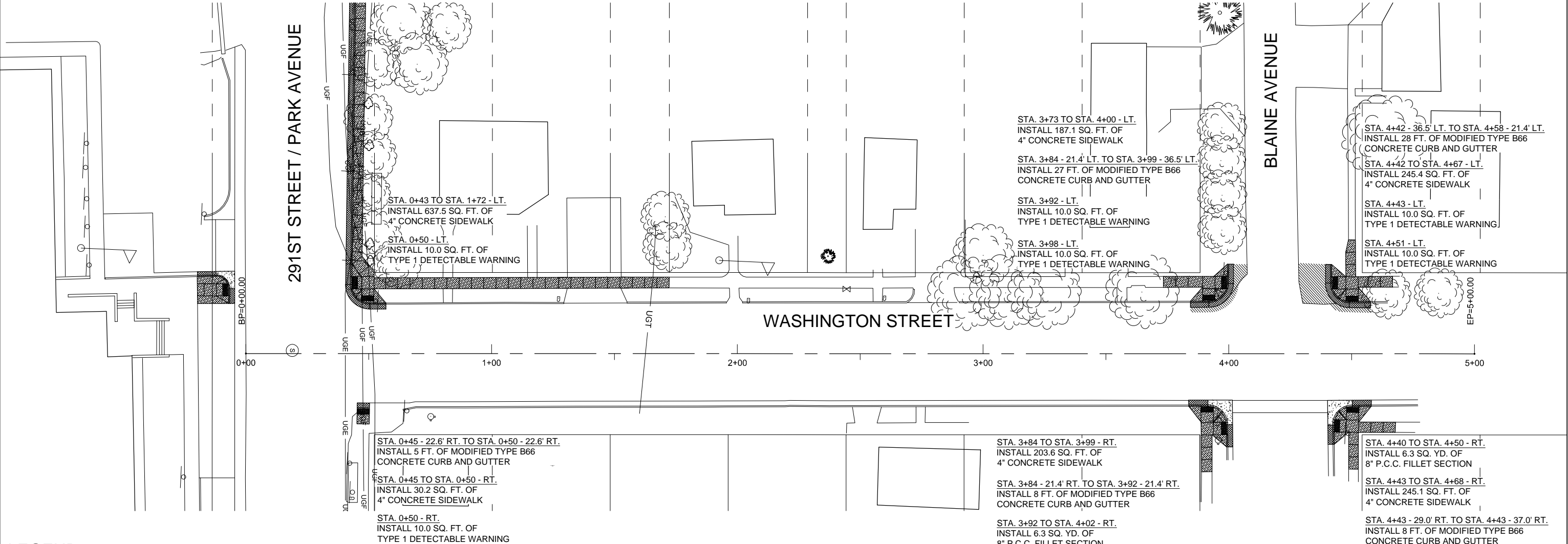


INSTALL LEGEND:

	CURB AND GUTTER INSTALLATION
	SIDEWALK INSTALLATION
	FILLET INSTALLATION
	ASPHALT PAVEMENT INSTALLATION
	VALLEY GUTTER INSTALLATION
	TURF REINFORCEMENT MAT

INSTALLATION PLAN
WASHINGTON STREET
STA. 0+00 TO STA. 5+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P SRTS(32)	16	37

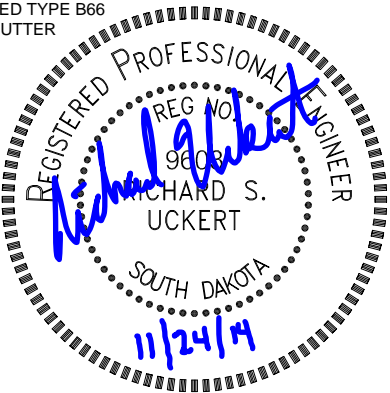


LEGEND:

— UGE —	EXISTING UNDERGROUND ELECTRIC	⊗	EXISTING WATER VALVE	⏏	EXISTING TELEPHONE PEDESTAL
— UGF —	EXISTING FIBER OPTIC LINE	⊗	EXISTING CURB STOP	⏏	EXISTING FIBER OPTIC VAULT
— UGT —	EXISTING UNDERGROUND TELEPHONE	⊗	EXISTING FIRE HYDRANT	⏏	EXISTING PROPANE TANK
⊗	EXISTING SANITARY SEWER MANHOLE	⊗	EXISTING STREET LIGHT	⏏	EXISTING DECIDUOUS TREE
⊗	EXISTING STORM SEWER MANHOLE	⊗	EXISTING MAILBOX	⏏	EXISTING CONIFEROUS TREE
		⊗	EXISTING SIGN	⏏	EXISTING FLAG POLE

INSTALL LEGEND:

	CURB AND GUTTER INSTALLATION		ASPHALT PAVEMENT INSTALLATION
	SIDEWALK INSTALLATION		VALLEY GUTTER INSTALLATION
	FILLET INSTALLATION		TURF REINFORCEMENT MAT



CURB AND GUTTER/
SIDEWALK LAYOUT

291ST STREET / PARK AVENUE (ALLEY CROSSING)

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P SRTS(32)	17	37



NOTES:
ALL FLARES ARE 10:1 MAX.

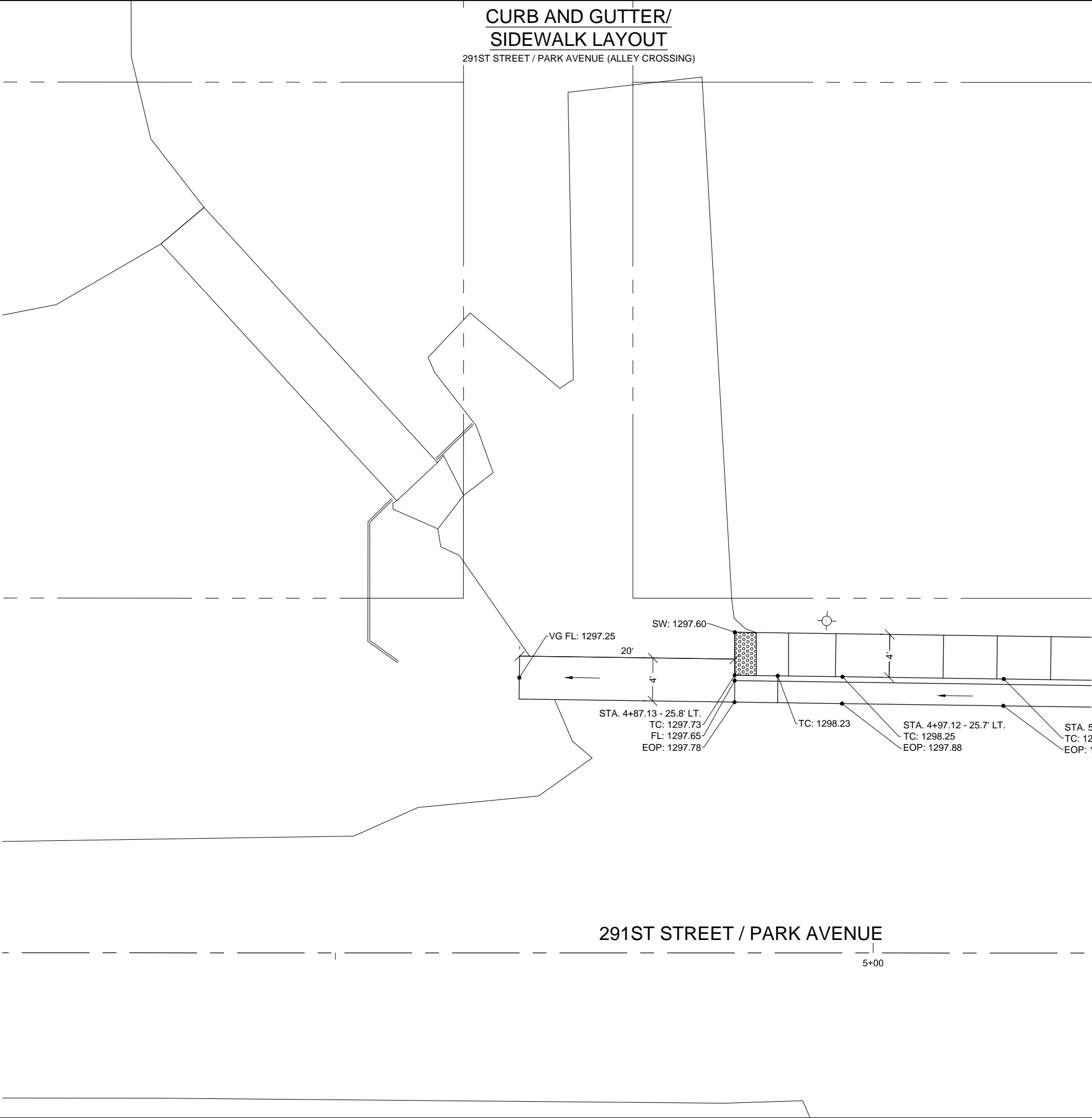
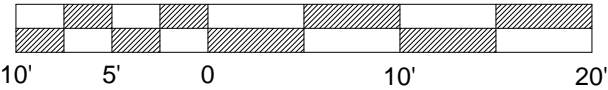
CONTRACTOR SHALL FIELD VERIFY ALL
FLOWLINE ELEVATIONS PRIOR TO INSTALLING
CURB AND GUTTER TO ENSURE PROPER
DRAINAGE.

CONTRACTOR SHALL FIELD VERIFY ALL
SIDEWALK SLOPES PRIOR TO INSTALLING
SIDEWALK TO MEET ALL ADA REQUIREMENTS.

SIDEWALK REMOVAL LENGTHS MAY VARY
DEPENDING ON LOCATION OF EXISTING
JOINTS.

OFFSETS SHOWN ARE TO BACK OF CURB

- LANDING (2% MAX. SLOPE EACH DIRECTION)
- ▤ DETECTABLE WARNING SURFACE
- FLOW ARROW



291ST STREET / PARK AVENUE

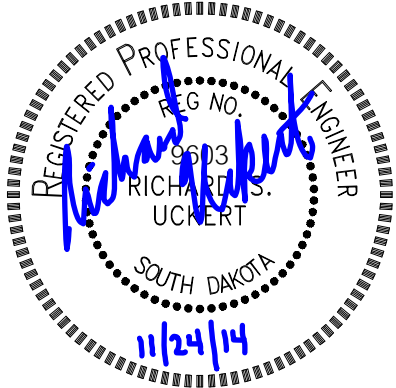
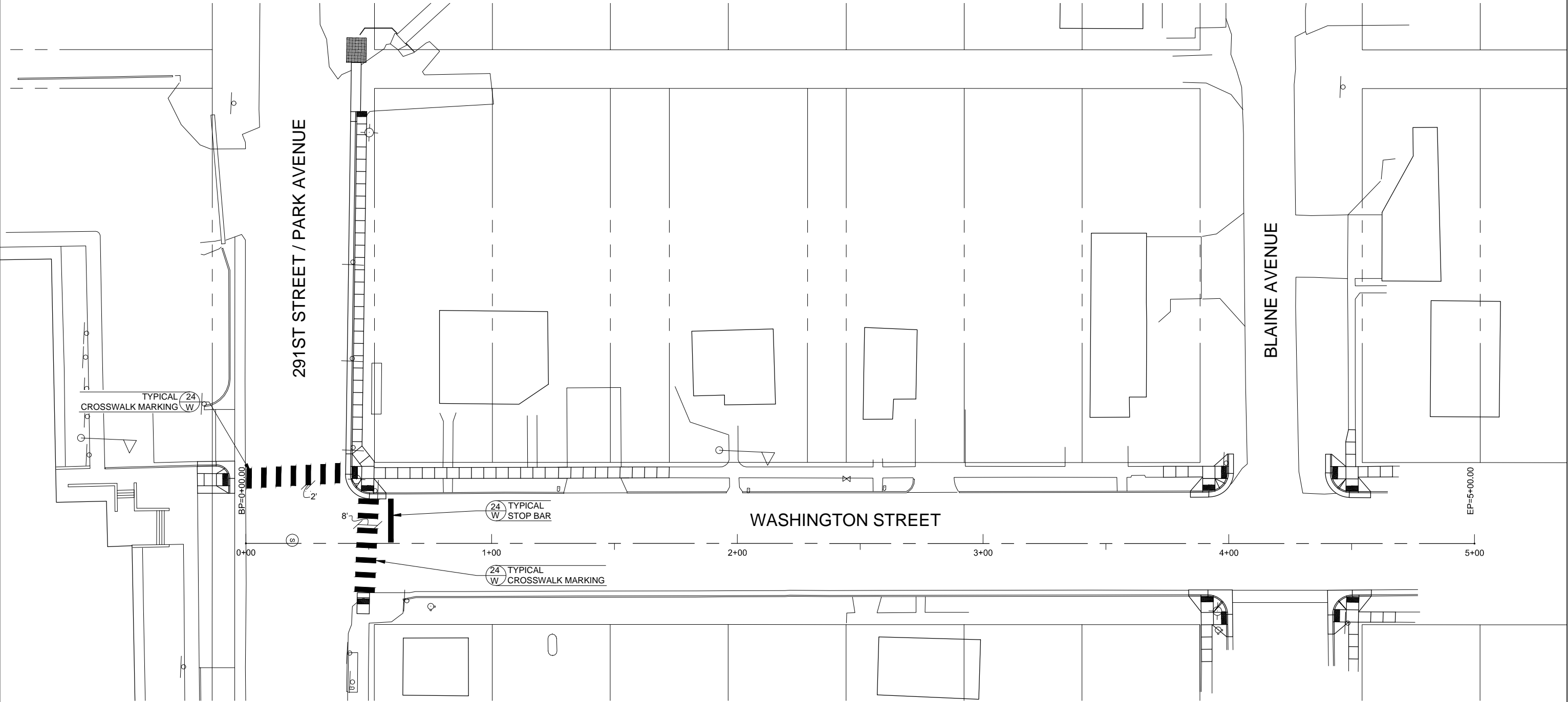
5+00



PAVEMENT MARKING PLAN

WASHINGTON STREET
291ST STREET / PARK AVENUE

STATE OF SOUTH DAKOTA	PROJECT P SRTS(32)	SHEET No.	TOTAL SHEETS
		20	37



NOTE:

ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.

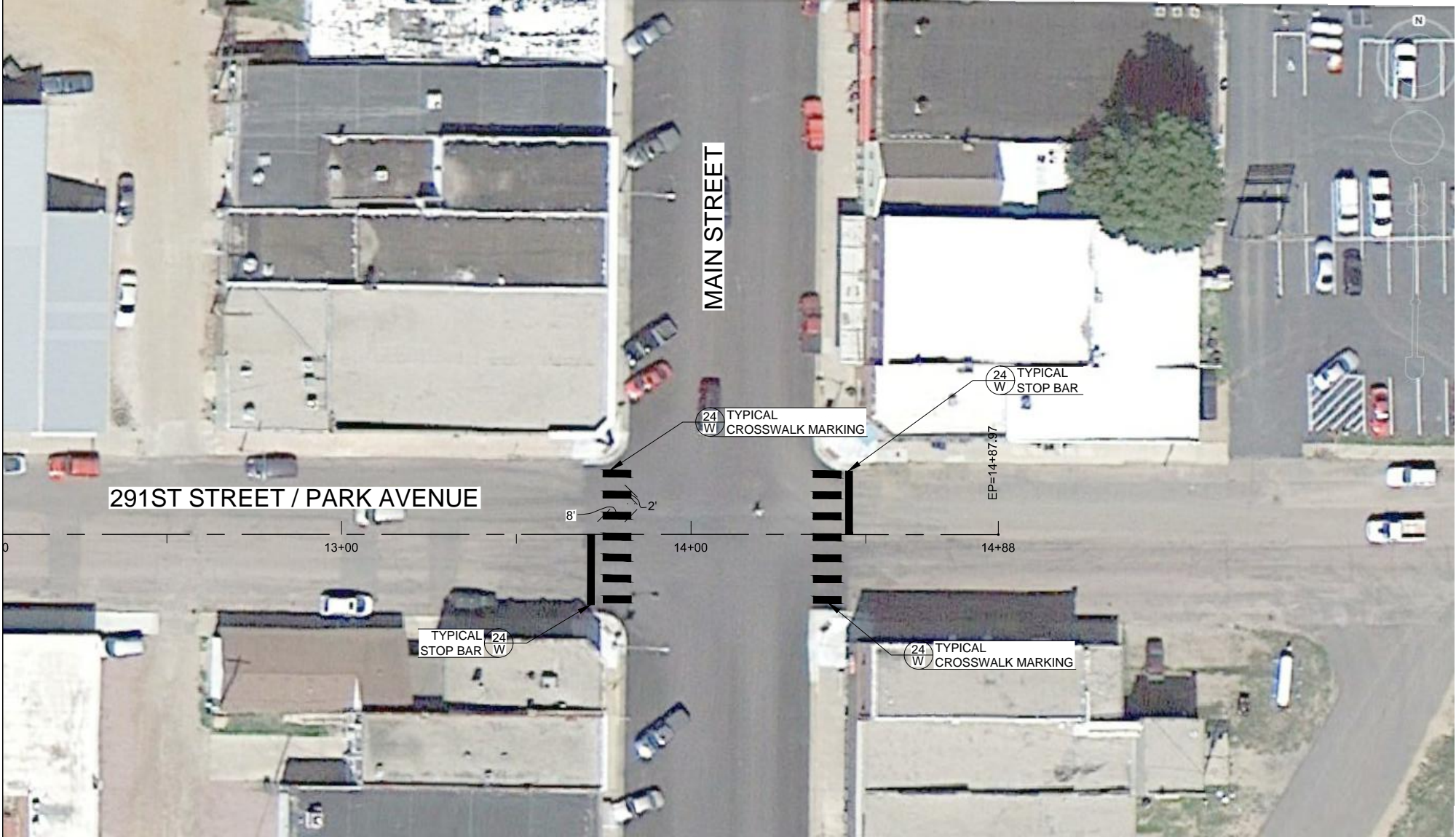
LEGEND:

 24" WHITE COLD APPLIED PLASTIC PAVEMENT MARKING

PAVEMENT MARKING PLAN

MAIN STREET
291ST STREET / PARK AVENUE

STATE OF SOUTH DAKOTA	PROJECT P SRTS(32)	SHEET No.	TOTAL SHEETS
		21	37



NOTE:

ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.

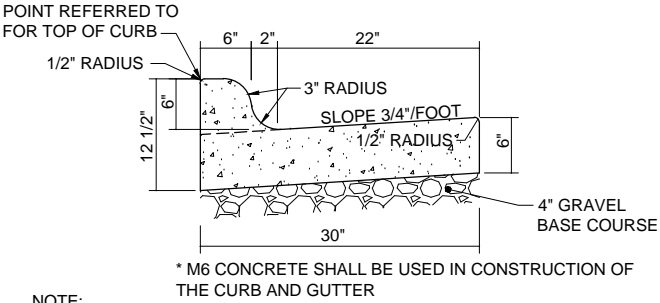
LEGEND:

(24' W) 24" WHITE COLD APPLIED PLASTIC PAVEMENT MARKING



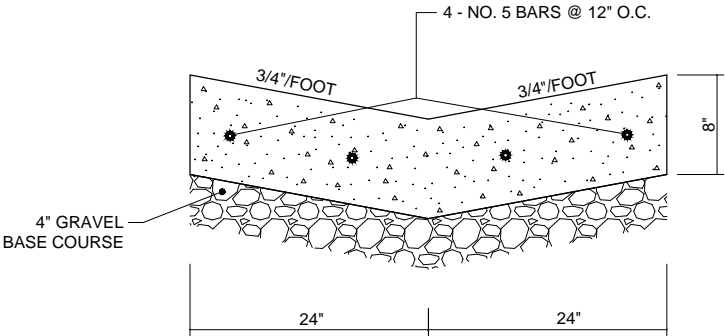
SPECIAL DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P SRTS(32)	23	37

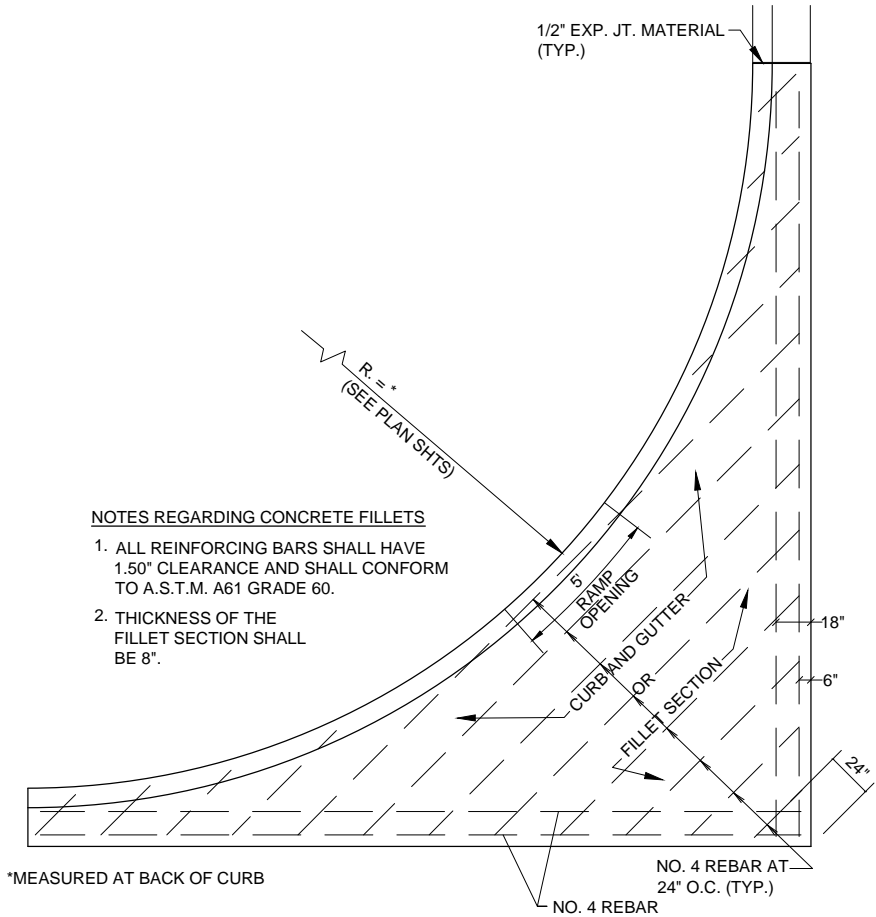


- NOTE:
1. THE SLOPE OF THE GUTTER SHALL BE A MAXIMUM OF 5% IN LOCATIONS WHERE A PEDESTRIAN RAMP IS DIRECTLY BEHIND THE CURB.

MODIFIED TYPE B66 CURB AND GUTTER
SCALE: NONE (BID ITEM 650E0059)



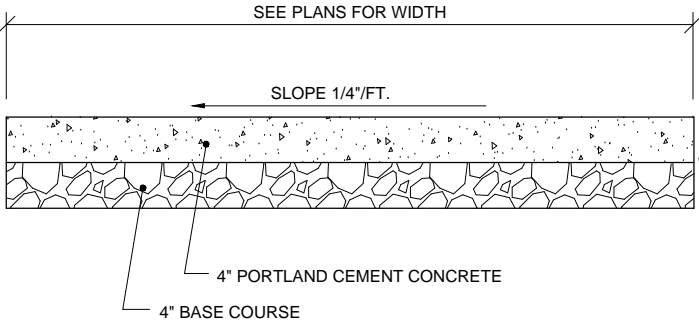
SECTION A-A
4' VALLEY GUTTER DETAIL
SCALE: NONE



NOTES REGARDING CONCRETE FILLETS

1. ALL REINFORCING BARS SHALL HAVE 1.50" CLEARANCE AND SHALL CONFORM TO A.S.T.M. A61 GRADE 60.
2. THICKNESS OF THE FILLET SECTION SHALL BE 8".

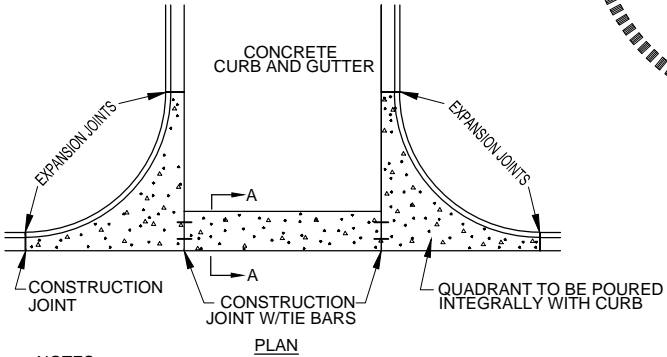
CONCRETE FILLET SECTION & CURB OPENINGS
SCALE: NONE



GENERAL NOTES PERTAINING TO SIDEWALKS:

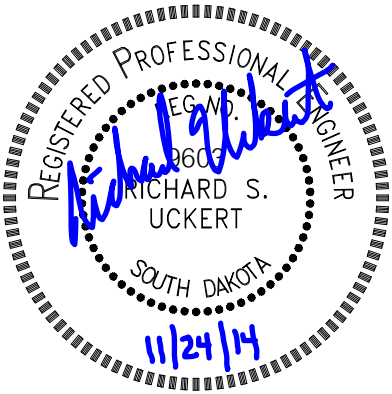
1. ALL JOINTS AND EDGES SHALL BE FINISHED WITH AN APPROVED EDGING TOOL.
2. BEGIN FLOATING IMMEDIATELY AFTER THE WATER SHEEN HAS DISAPPEARED. IMMEDIATELY AFTER FLOAT FINISH THE SURFACE SHALL BE BRUSHED OR BROOMED TO SLIGHTLY ROUGHEN THE SURFACE AND REMOVE THE FINISHING TOOL MARKS.
3. CONTRACTION JOINTS SHALL BE FORMED AT INTERVALS OF APPROXIMATELY SIX (6) FEET BY MEANS OF A GROOVING TOOL TO THE DEPTH OF AT LEAST 1/3 THE THICKNESS OF THE SIDEWALK.
4. 1/2" EXPANSION JOINT MATERIAL SHALL BE INSTALLED AT THE LOCATIONS INDICATED IN THE SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

TYPICAL SIDEWALK DETAIL
SCALE: NONE



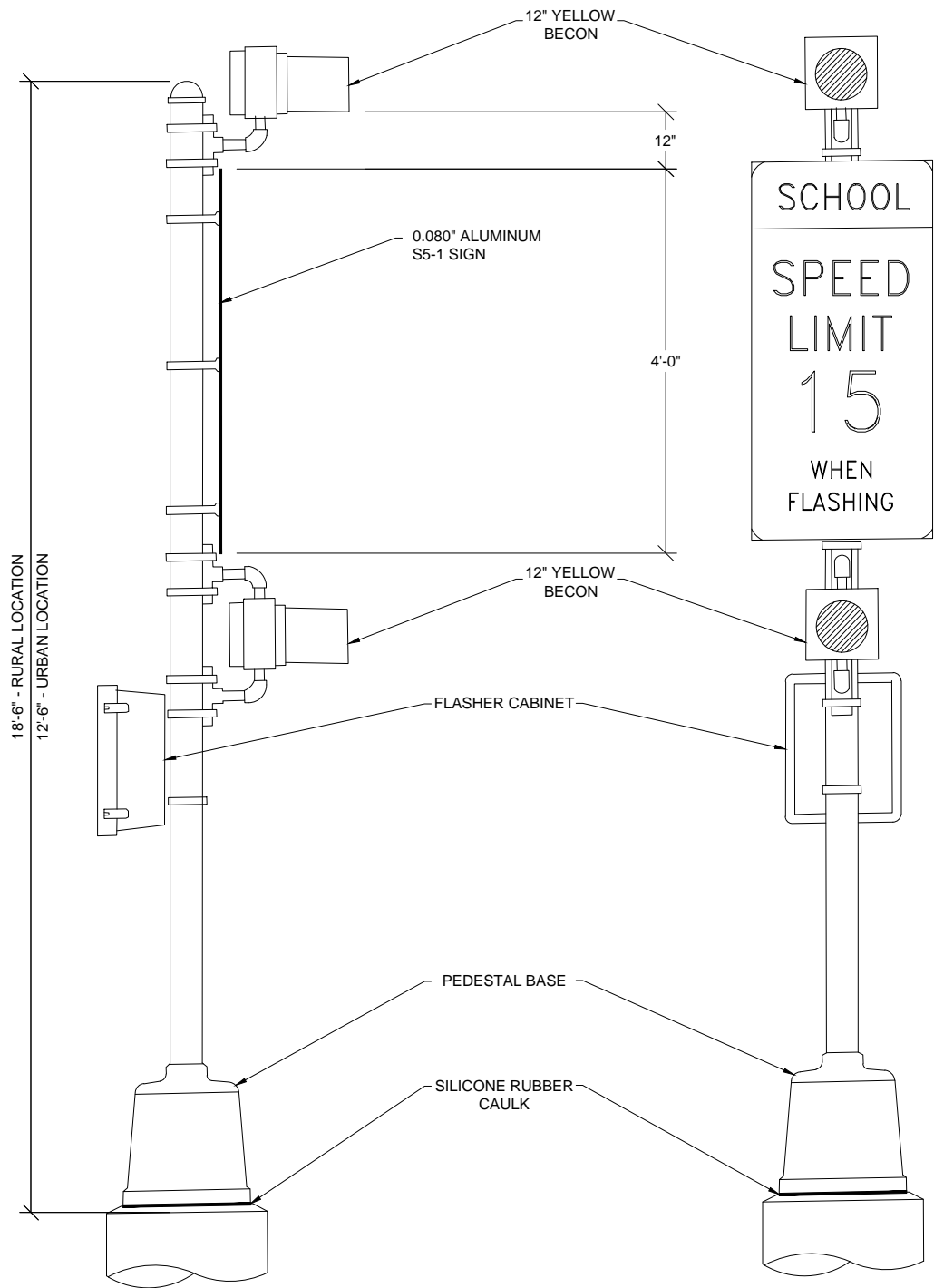
NOTES:

1. CONTRACTOR SHALL COORDINATE ADDITIONAL JOINTS IN VALLEY GUTTER WITH PAVEMENT JOINT LOCATIONS.
2. TIE BARS SHALL BE DRILLED INTO EXISTING VALLEY GUTTERS THAT ARE TO REMAIN IN PLACE AND SECURED WITH EPOXY. NO SEPARATE MEASUREMENT AND PAVEMENT WILL BE MADE FOR INSERTING TIE BARS INTO EXISTING VALLEY GUTTERS.

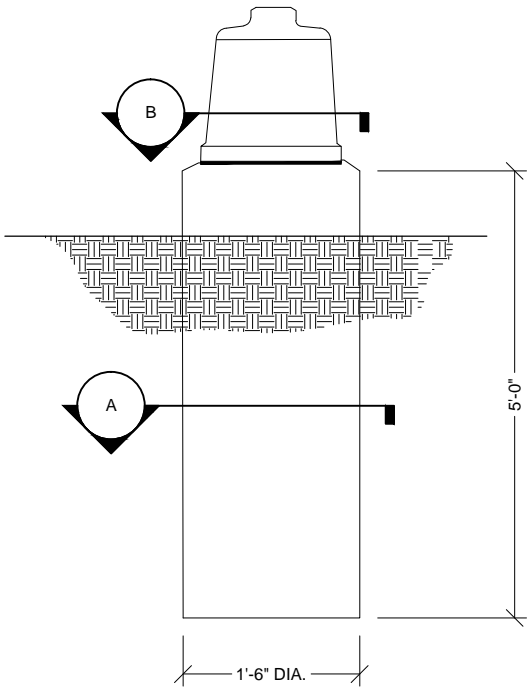


SPECIAL DETAILS

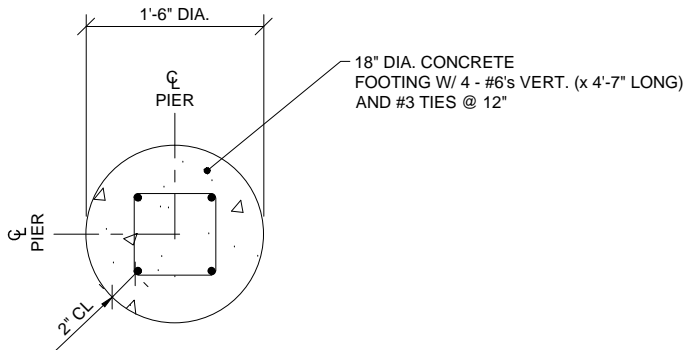
STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P SRTS(32)	24	37



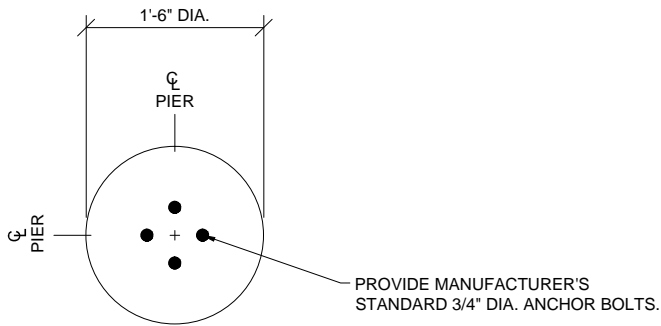
SCHOOL CROSSING FLASHING
BEACONS, PEDESTAL POLE & SIGNING DETAIL
SCALE: NONE



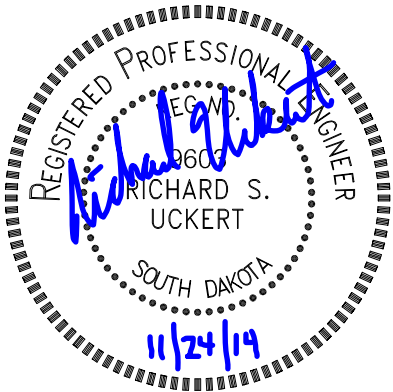
NOTE:
ALL CONCRETE REINFORCING STEEL, ANCHOR BOLTS, AND ALL COSTS
OF INSTALLING THE CONCRETE FOOTINGS INCLUDING CONCRETE,
EXCAVATION, FORMING, REINFORCING STEEL, AND ANCHOR BOLTS
SHALL BE INCLUDED IN THE UNIT PRICE PER LINER FOOT FOR 1.5'
DIAMETER FOOTING.



SECTION A

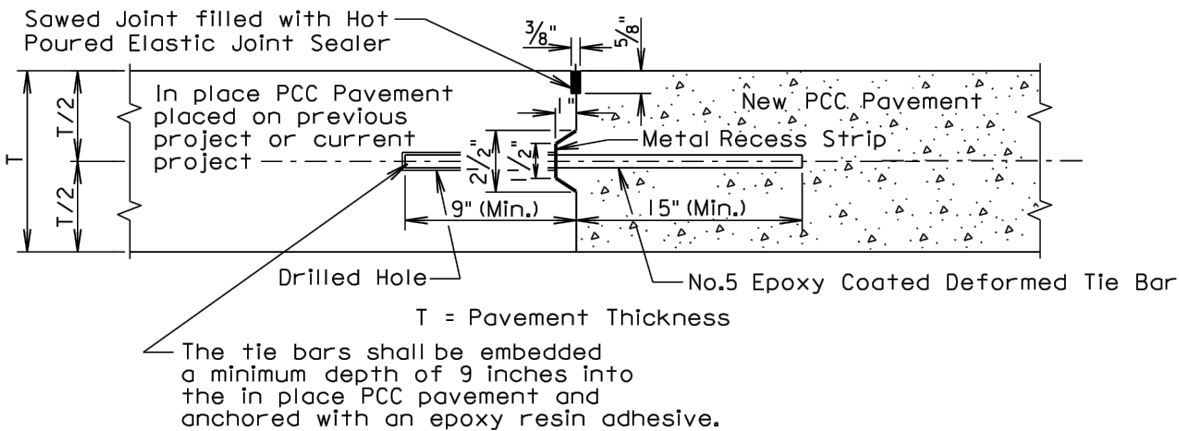


SECTION B



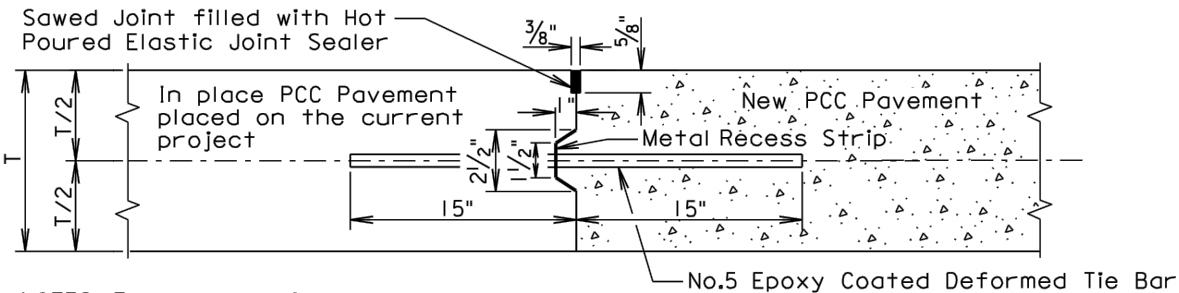
LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS

(DRILLED IN BARS)



LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS

(INSERTED OR FORMED IN BARS)



GENERAL NOTES (For the details above):

The epoxy coated deformed tie bars shall be spaced in accordance with the following tables:

Tie Bar Spacing 48" Maximum	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

Tie Bar Spacing 30" Maximum	
Transverse Contraction Joint Spacing	Number of Tie Bars
5' to 7'	2
7.5' to 9.5'	3
10' to 12'	4
12.5' to 14.5'	5
15' to 17'	6
17.5' to 19.5'	7
20' to 22'	8

The tie bars shall be placed a minimum of 15 inches from transverse contraction joints.

The required number of tie bars as shown in the table shall be uniformly spaced within each panel. The uniformly spaced tie bars shall be spaced a maximum of 48 inches center to center for a female keyway and shall be spaced a maximum of 30 inches center to center for a vertical face and male keyway. The maximum tie bar spacing shall apply to tie bars within each panel.

The keyway illustrated in the above details depict a female keyway.

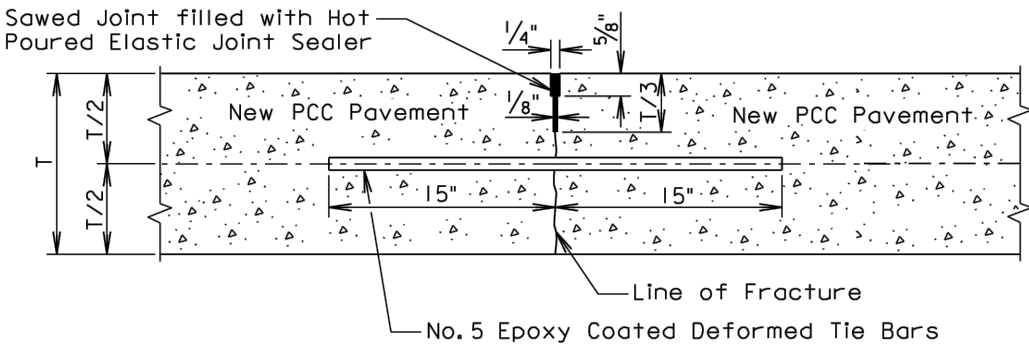
The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip shall be used. When concrete pavement is slip formed, a metal recess strip is not required.

August 31, 2013

Published Date: 4th Qtr. 2014	S D D O T	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.10
			Sheet 1 of 2

SAWED LONGITUDINAL JOINT WITH TIE BARS

(POURED MONOLITHICALLY)



T = Pavement Thickness

GENERAL NOTES (For the detail above):

The epoxy coated deformed tie bars shall be spaced in accordance with the following table:

Tie Bar Spacing 48" Maximum	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

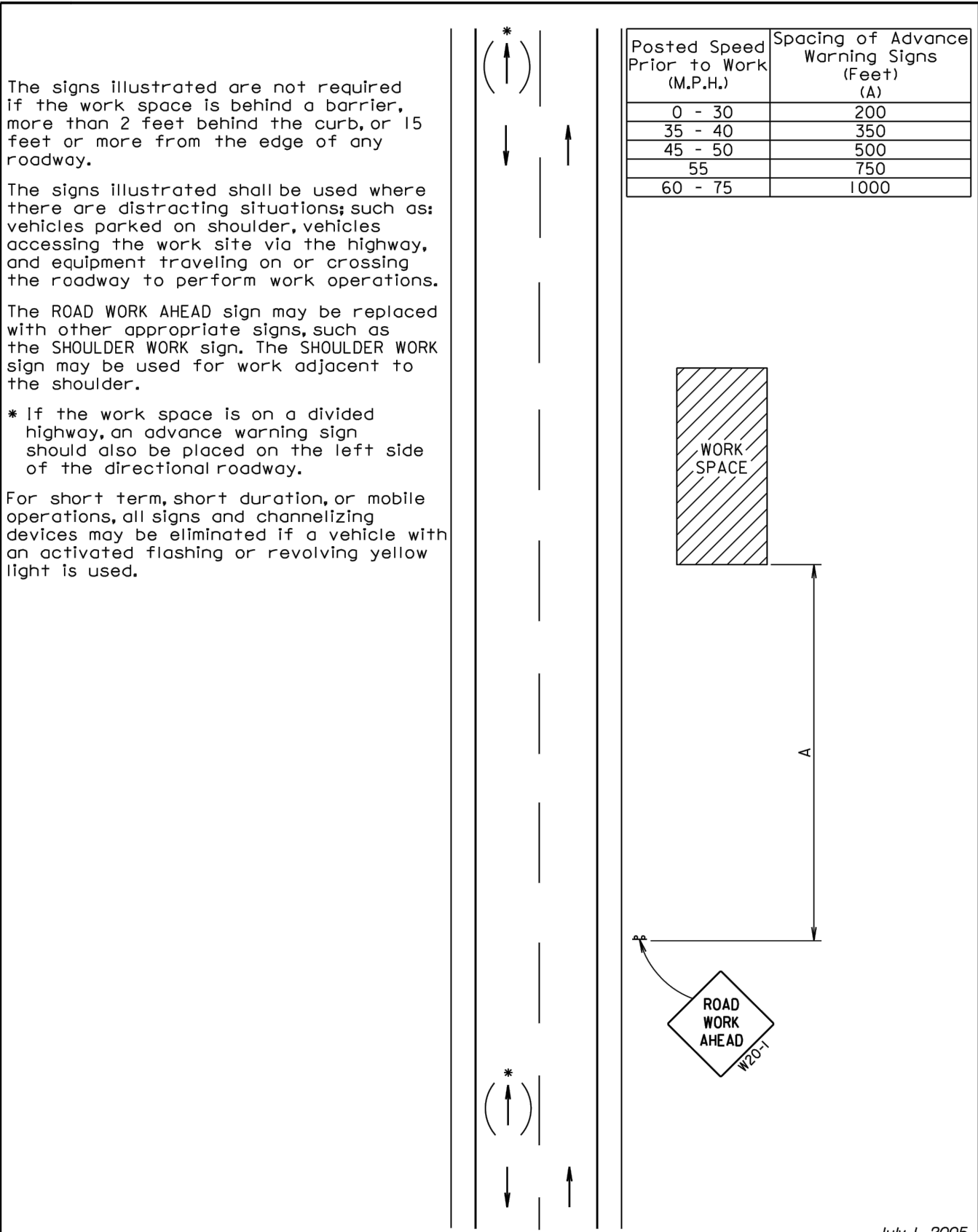
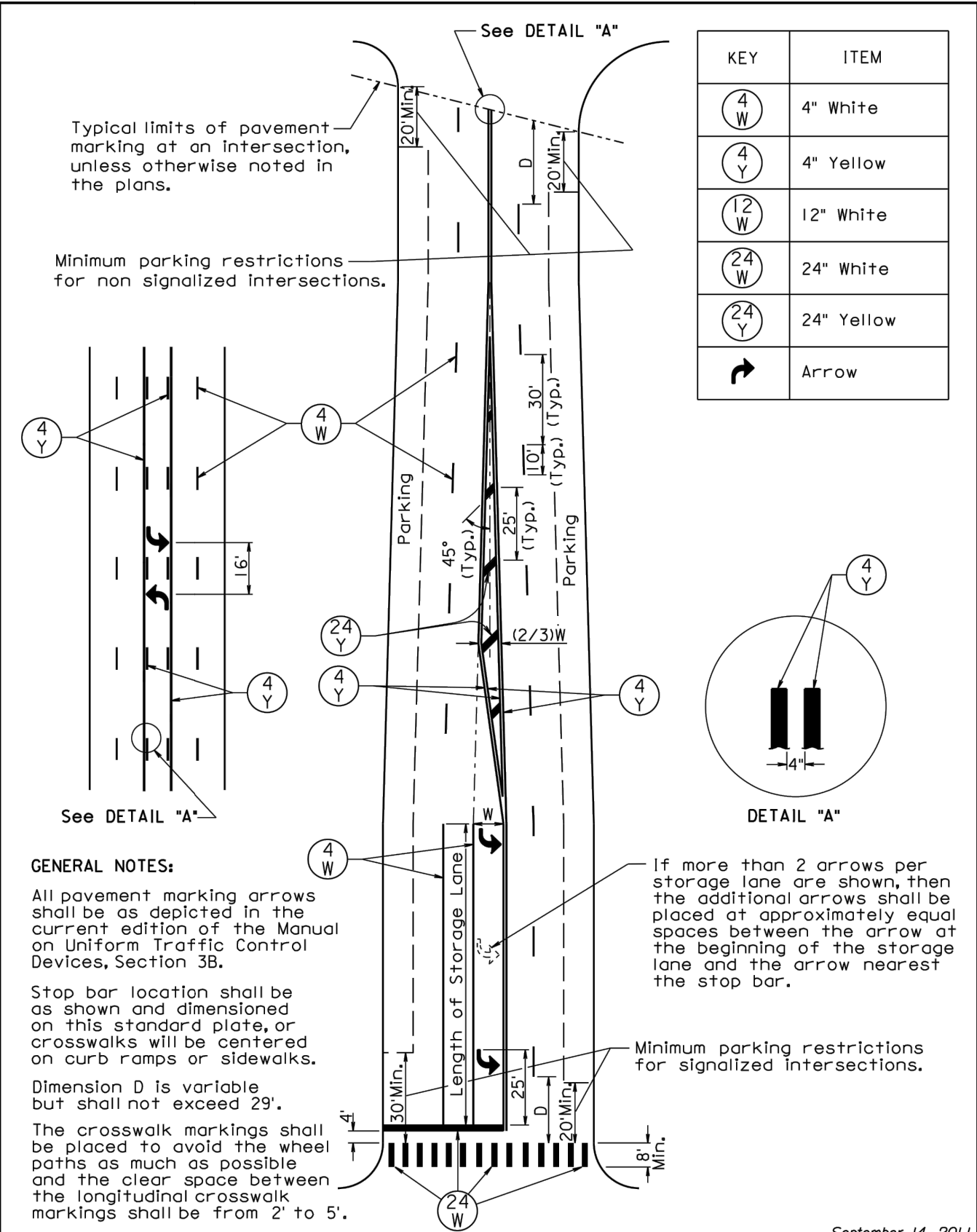
The tie bars shall be placed a minimum of 15 inches from the transverse contraction joints.

The required number of tie bars as shown in the table shall be uniformly spaced within each panel with a maximum space of 48 inches center to center. The maximum tie bar spacing shall apply to tie bars within each panel.

The first saw cut to control cracking shall be a minimum of 1/3 the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot poured elastic joint sealer is necessary.

August 31, 2013

Published Date: 4th Qtr. 2014	S D D O T	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.10
			Sheet 2 of 2



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	25
35 - 40	350	25
45 - 50	500	50
55	750	50
60 - 65	1000	50

- Flagger
- Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices shall be drums or 42" cones.

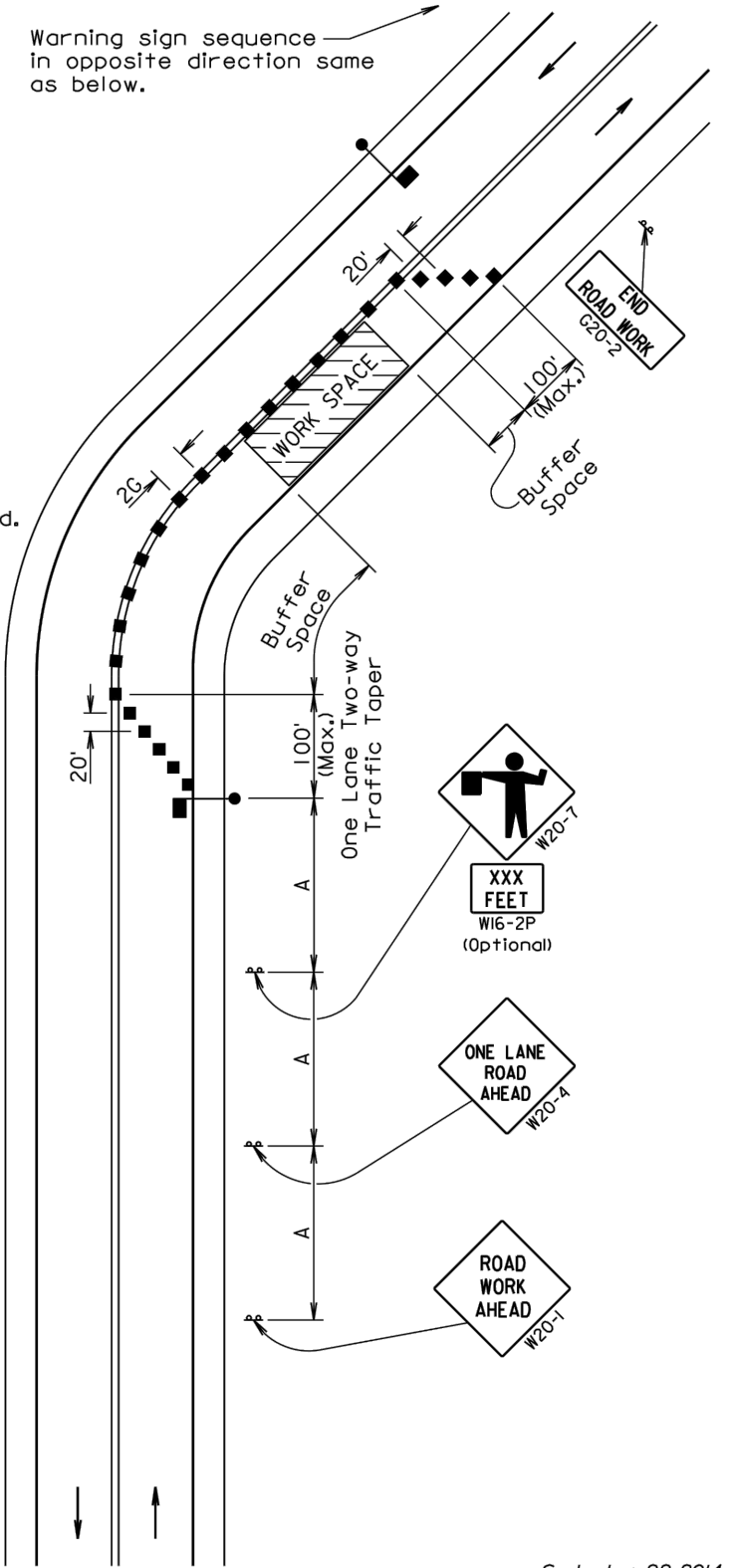
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.

Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

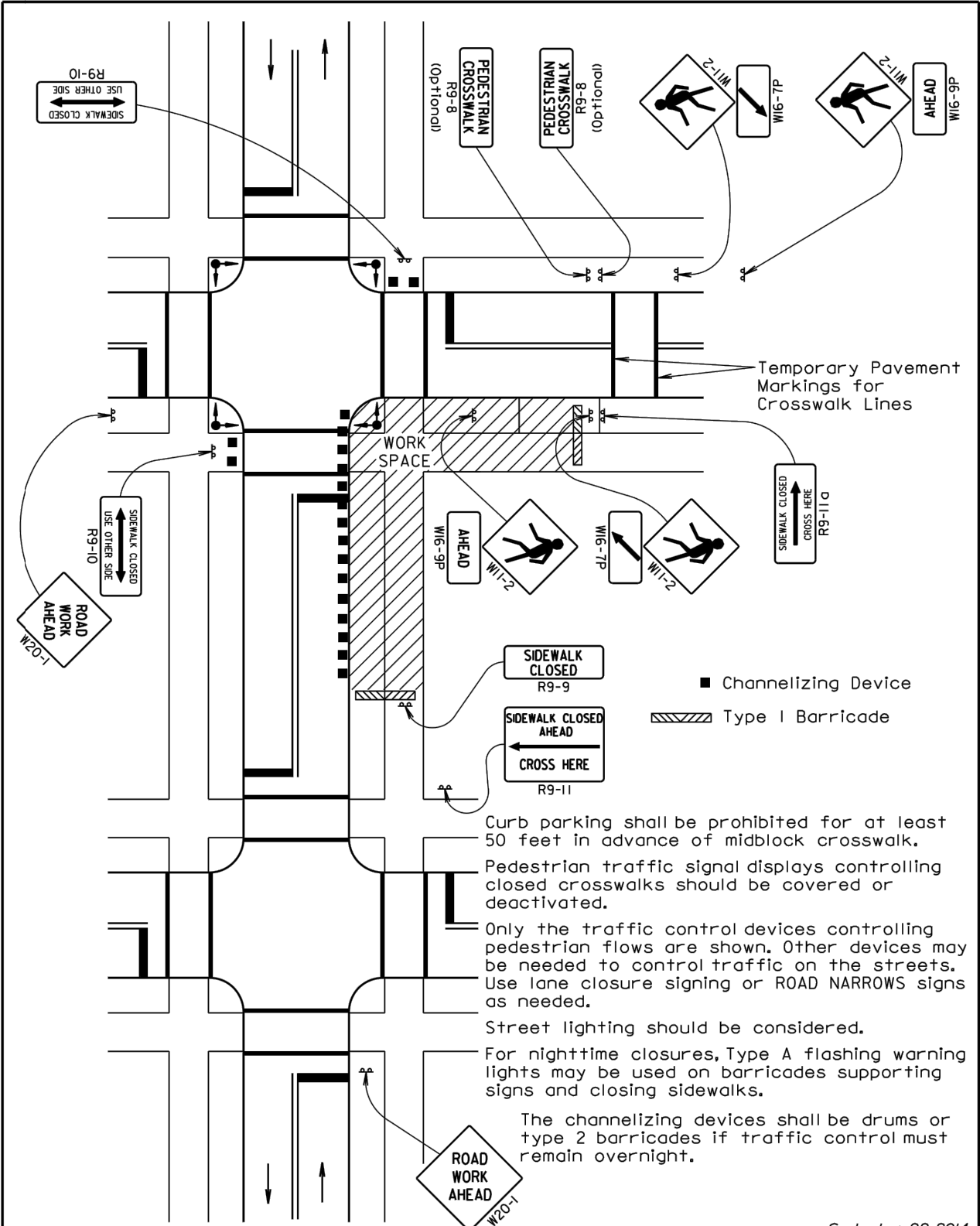
The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

The length of A may be adjusted to fit field conditions.

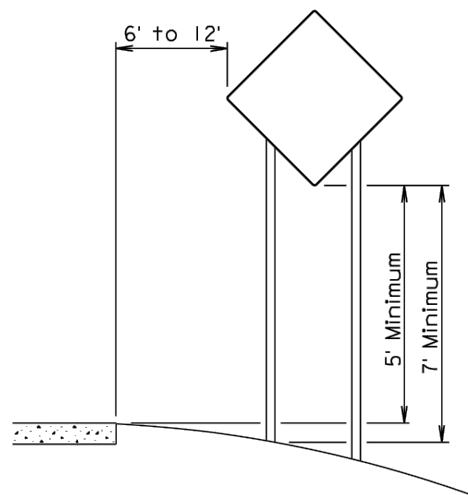
Warning sign sequence in opposite direction same as below.



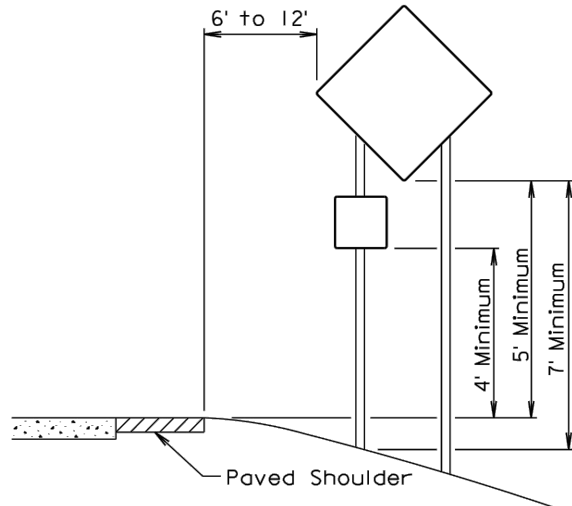
September 22, 2014



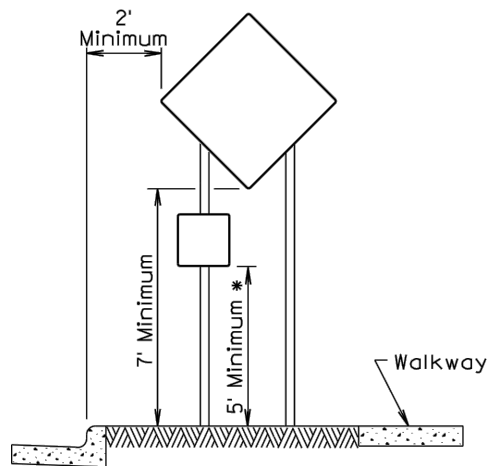
September 22, 2014



RURAL DISTRICT

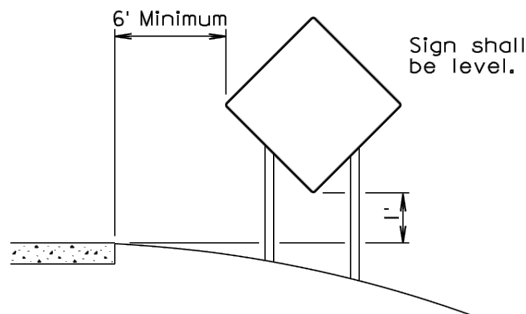


RURAL DISTRICT WITH
SUPPLEMENTAL PLATE



URBAN DISTRICT

* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.



RURAL DISTRICT
3 DAY MAXIMUM

(Not applicable to regulatory signs)

September 22, 2014

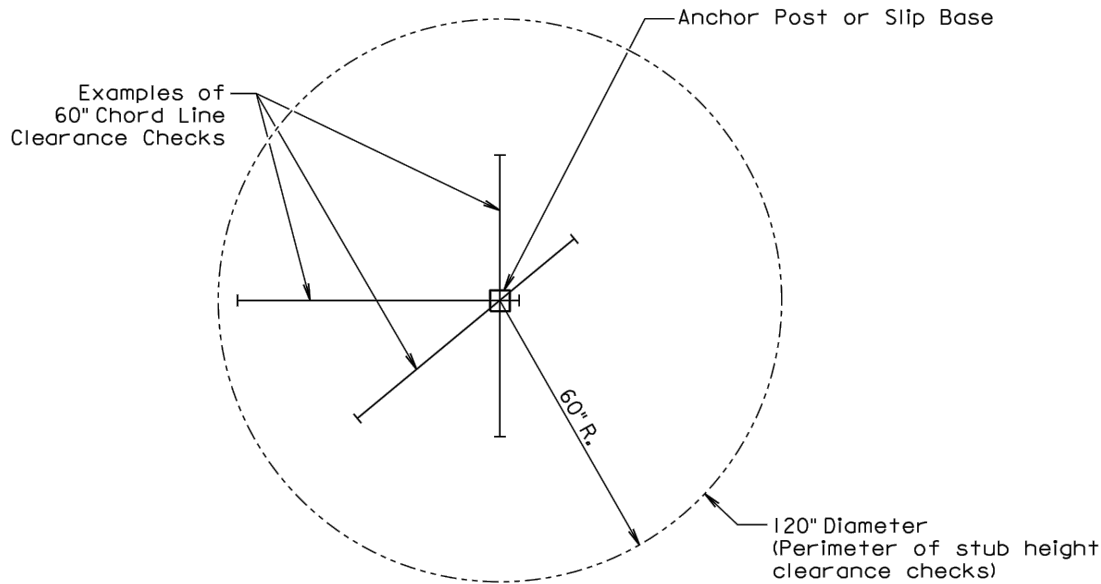
Published Date: 4th Qtr. 2014

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CRASHWORTHY SIGN SUPPORTS
(Typical Construction Signing)

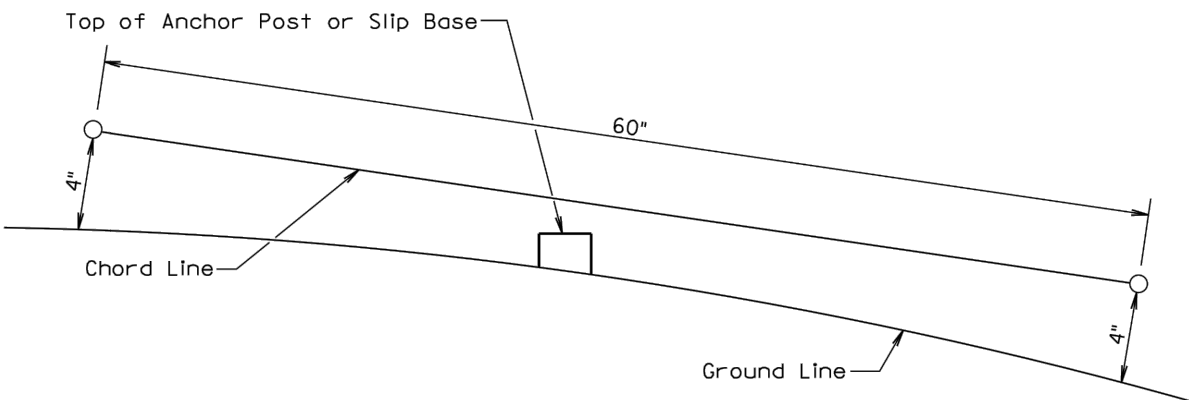
PLATE NUMBER
634.85

Sheet 1 of 1



PLAN VIEW

(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

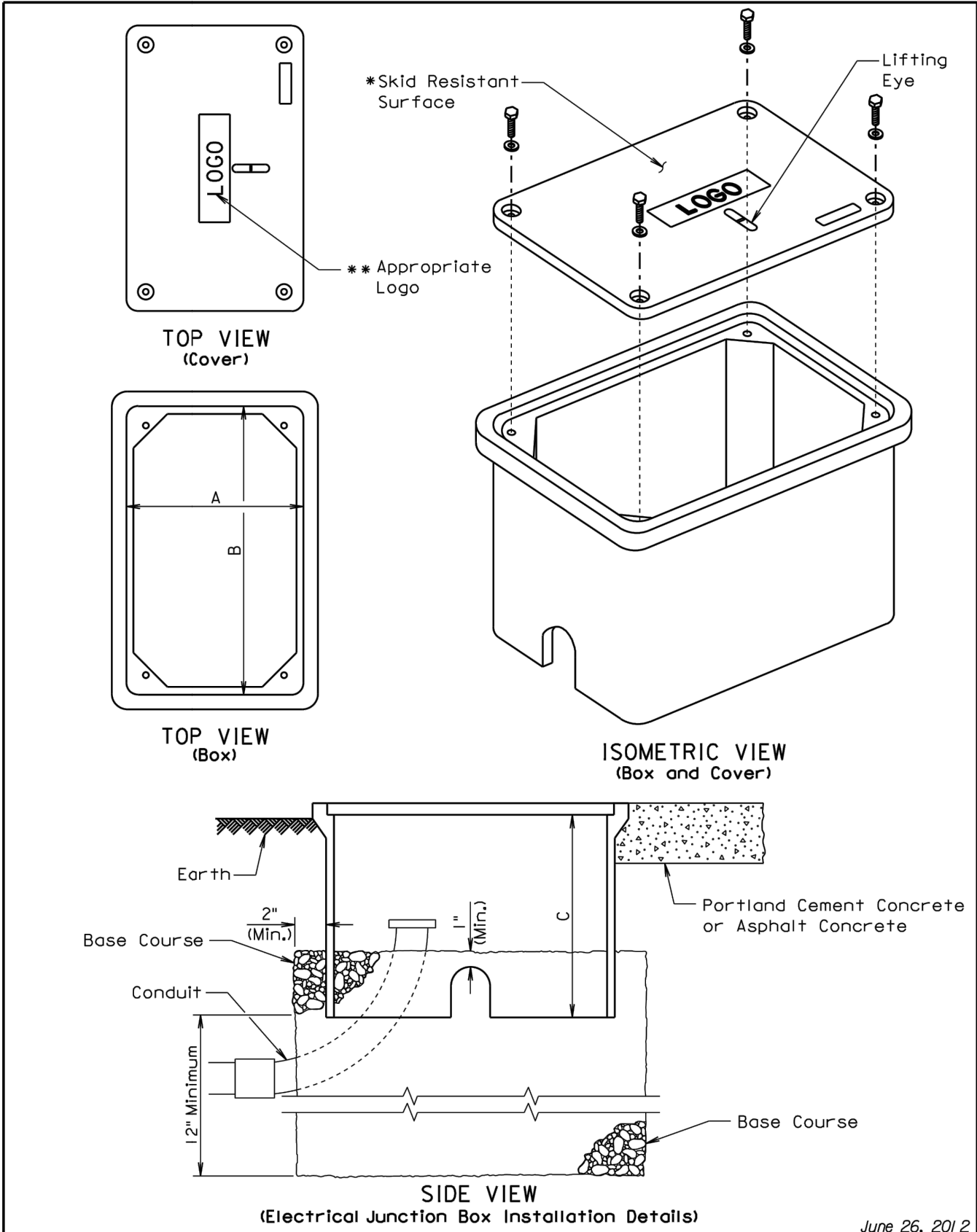
Published Date: 4th Qtr. 2014

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BREAKAWAY SUPPORT STUB CLEARANCE

PLATE NUMBER
634.99

Sheet 1 of 1



June 26, 2012

ELECTRICAL JUNCTION BOX				
TYPE	DESCRIPTION	DIMENSIONS		
		A	B	C
1	Open Bottom with Gasket	11"-15"	18"-21"	18" (Min.)
2	Open Bottom with Gasket	13"-18"	23"-28"	18" (Min.)
3	Open Bottom with Gasket	17"-22"	24"-30"	18" (Min.)
4	Open Bottom with Gasket	28"-33"	36"-48"	24" (Min.)

GENERAL NOTES:

The cover shall be gasketed with a minimum of two stainless steel bolts and washers.

The cover shall have a lifting eye.

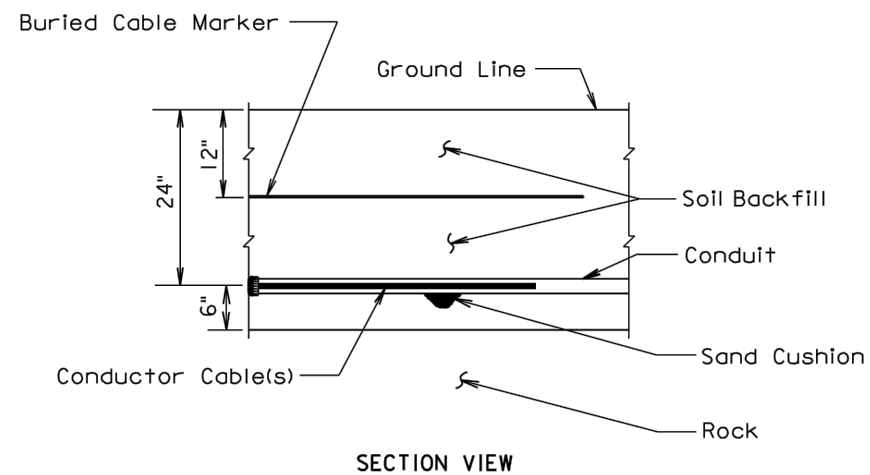
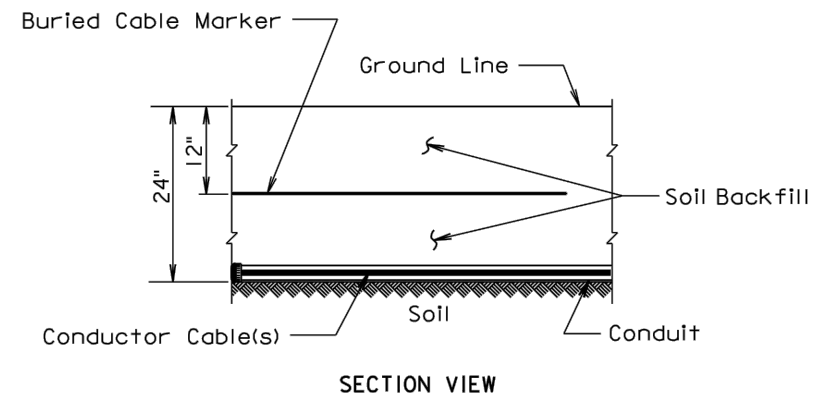
*The surface of the cover shall have a minimum wet and dry coefficient of friction value of 0.5 as determined by ASTM F 609.

**The cover of the junction box shall have the appropriate logo in one inch size letters and shall be recessed. When the junction box contains cables or wires for a traffic signal then the logo shall be "Signal". When the junction box contains lighting conductors then the logo shall be "Lighting".

The electrical junction boxes shall comply with the American National Standards Institute (ANSI)/Society of Cable Telecommunications Engineers (SCTE) 77 2007 Specification for Underground Enclosure Integrity. The loading requirement for all the electrical junction boxes shall be Tier 8 of ANSI/SCTE 77 2007.

The electrical junction boxes shall be UL listed.

June 26, 2012

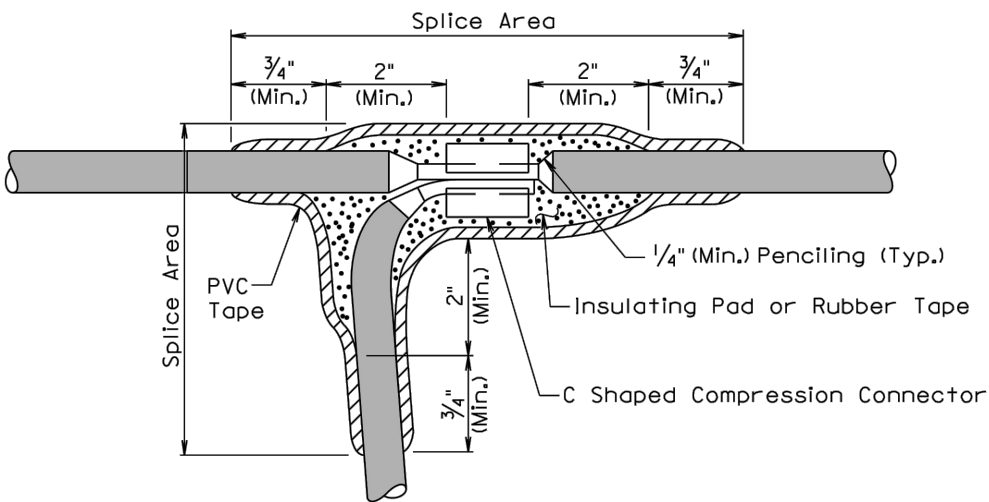


GENERAL NOTE:

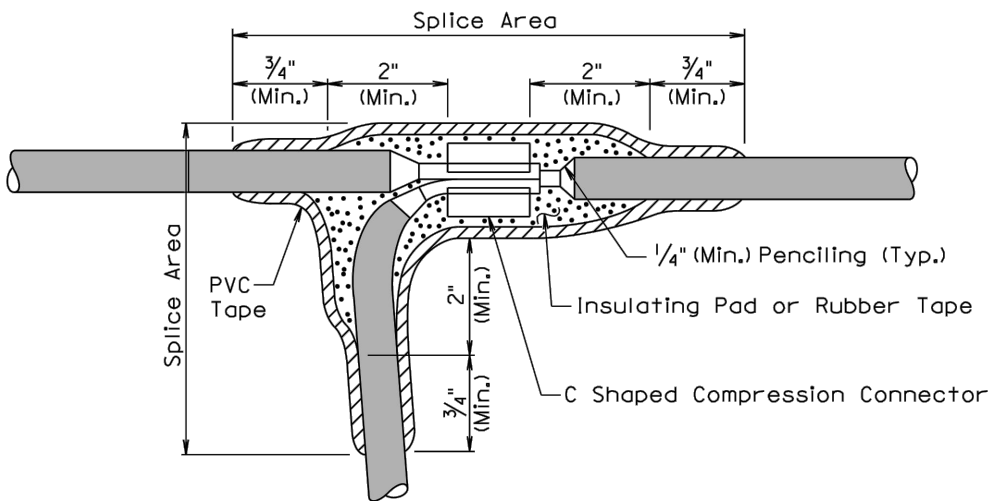
The Buried Cable Marker shall be plastic, approximately 6" wide, and shall be capable of sustaining a minimum of a 350% tolerance of elongation without tearing. The Buried Cable Marker shall have a life expectancy approximately equal to that of the conductor(s) beneath it. A phrase indicating the presence of a buried electric circuit below shall be printed in a contrasting color on the cable marker. The Buried Cable Marker shall be subject to approval by the Engineer. All costs associated with furnishing and installing the Buried Cable Marker shall be incidental to the contract unit price per Foot for the bid item used for the electrical conductor.

March 31, 2000

Published Date: 4th Qtr. 2014	S D D O T	CONDUIT INSTALLATION	PLATE NUMBER 635.76
			Sheet 1 of 1



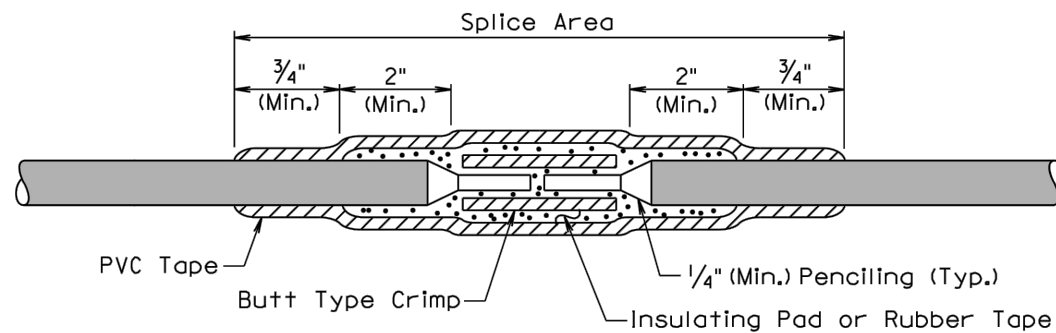
TYPE C SPLICE
(Between 1 free end and 1 through conductor)



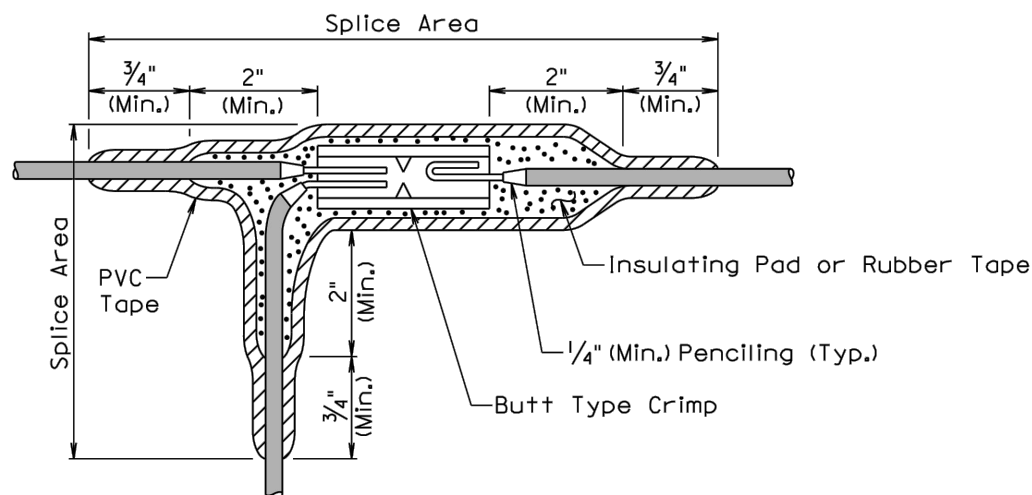
TYPE T SPLICE
(For 3 free ends)

February 14, 2010

Published Date: 4th Qtr. 2014	S D D O T	WIRE SPLICING FOR LIGHTING (LOW VOLTAGE CIRCUITS (0 to 600 V))	PLATE NUMBER 635.80
			Sheet 1 of 2



TYPE S SPLICE
(Between 2 free ends)



TYPE ST SPLICE
(For 3 free ends)

GENERAL NOTES:

The splice shall be environmentally sealed for protection from weather, moisture, and abrasion in accordance with the method stated below.

The rubber tapes shall be rolled after application.

Method for insulating splice area:

1. The splice area shall be completely covered with electrical insulating coating and dried.
2. Apply two layers of 1/8" minimum thickness electrical insulating pad or two layers of half lapped synthetic oil resistant self fusing rubber tape.
3. Three layers of half lapped polyvinyl chloride tape shall be applied.
4. The entire splice area shall be covered with electrical insulating coating and dried.

February 14, 2010

Published Date: 4th Qtr. 2014

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WIRE SPLICING FOR LIGHTING
(LOW VOLTAGE CIRCUITS (0 to 600 V))

PLATE NUMBER
635.80

Sheet 2 of 2

GENERAL NOTES:

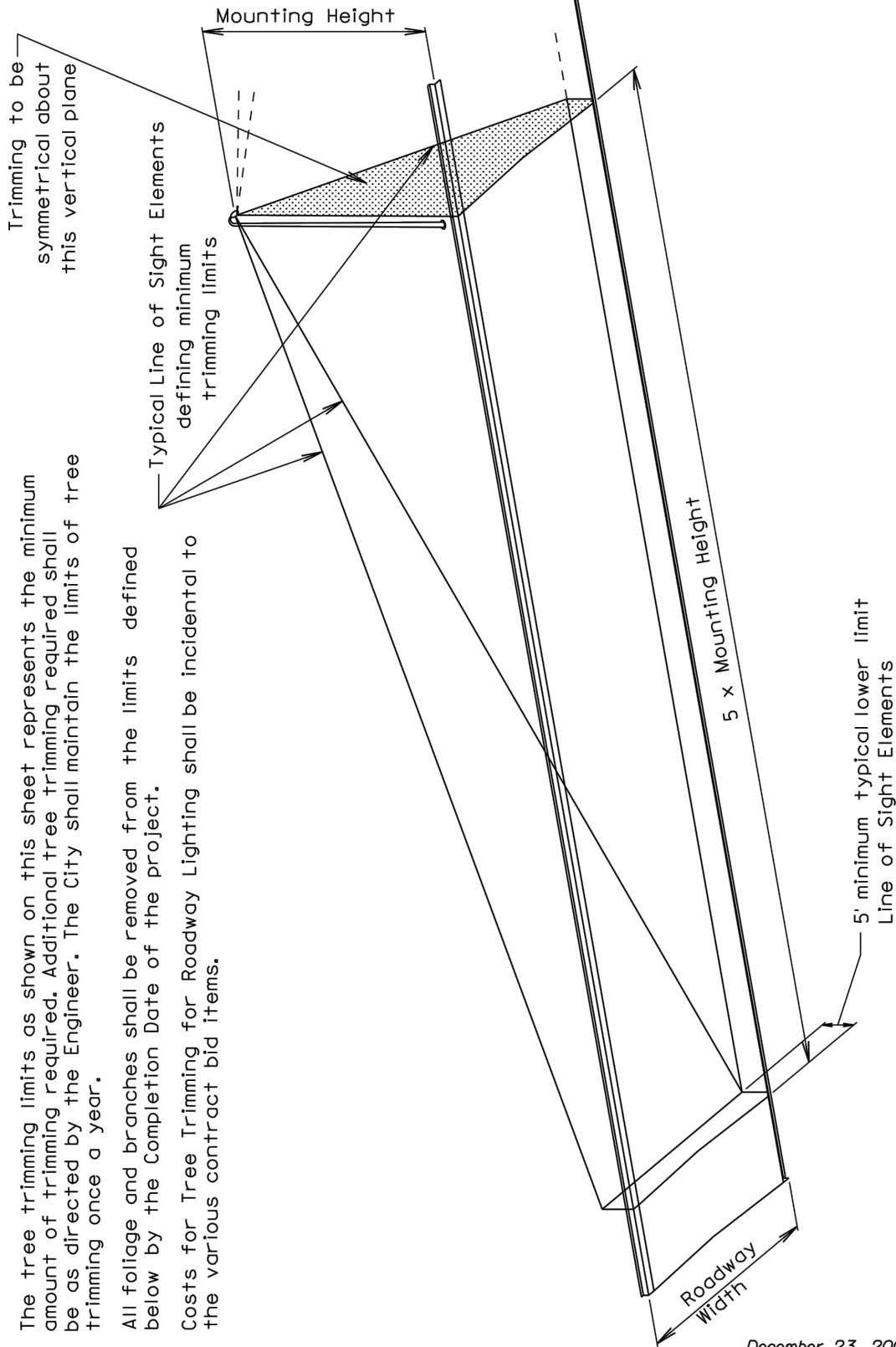
Tree Trimming shall be done in accordance with proper tree trimming practices. The underside of each branch to be removed shall have a groove sawed through the bark (1/2" Min. depth) before any sawing is started on the top side of the branch.

Tree trimming shall be applied around each light source installed within the limits of the project.

The tree trimming limits as shown on this sheet represents the minimum amount of trimming required. Additional tree trimming required shall be as directed by the Engineer. The City shall maintain the limits of tree trimming once a year.

All foliage and branches shall be removed from the limits defined below by the Completion Date of the project.

Costs for Tree Trimming for Roadway Lighting shall be incidental to the various contract bid items.



December 23, 2009

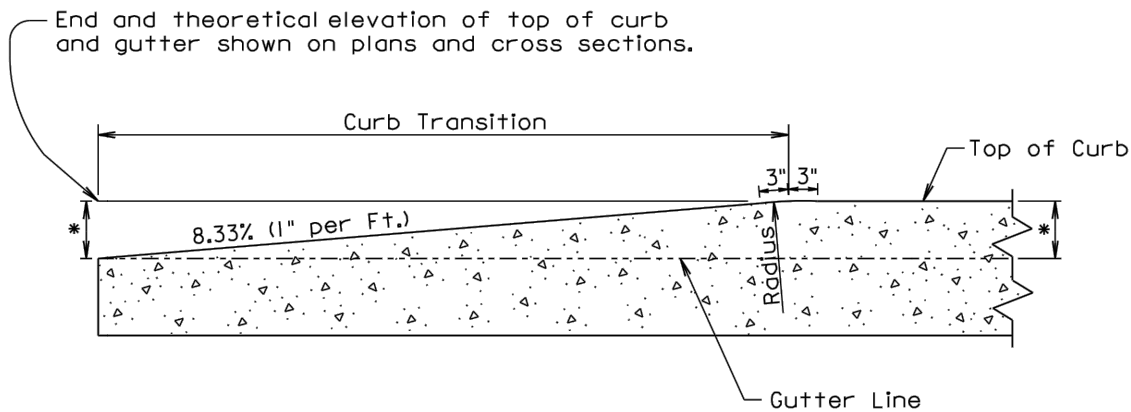
Published Date: 4th Qtr. 2014

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TREE TRIMMING FOR ROADWAY LIGHTING

PLATE NUMBER
635.99

Sheet 1 of 1



* Height of Curb

LONGITUDINAL SECTION OF CONCRETE CURB TAPER

September 14, 2005

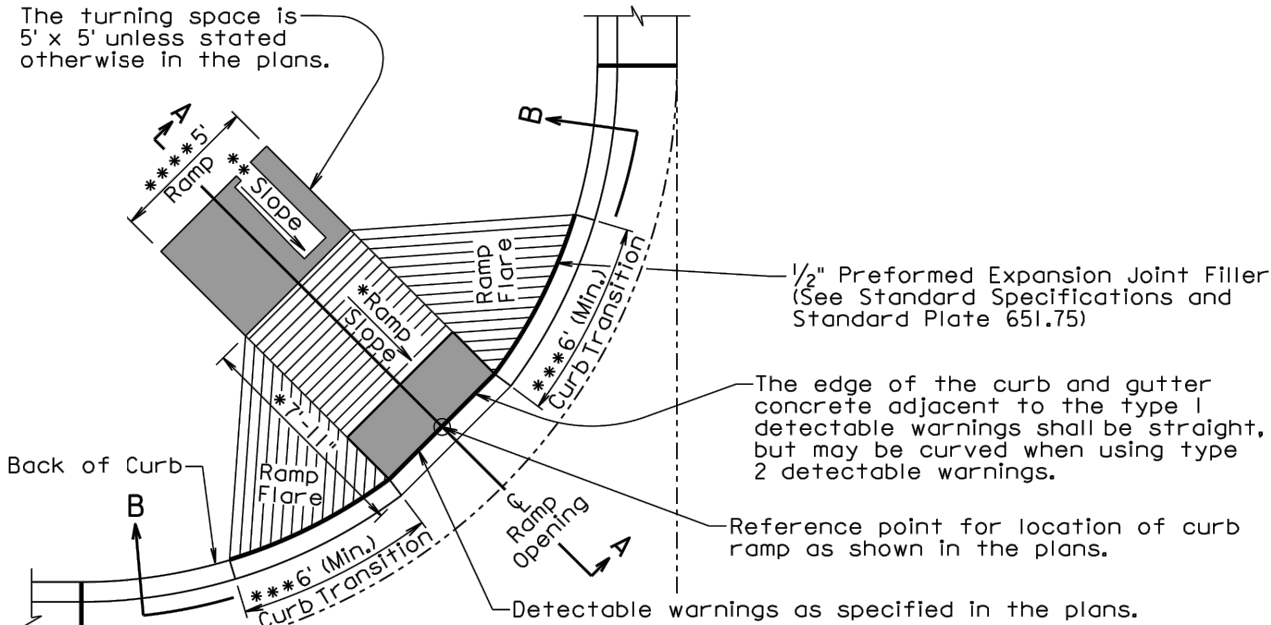
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CONCRETE CURB TAPER

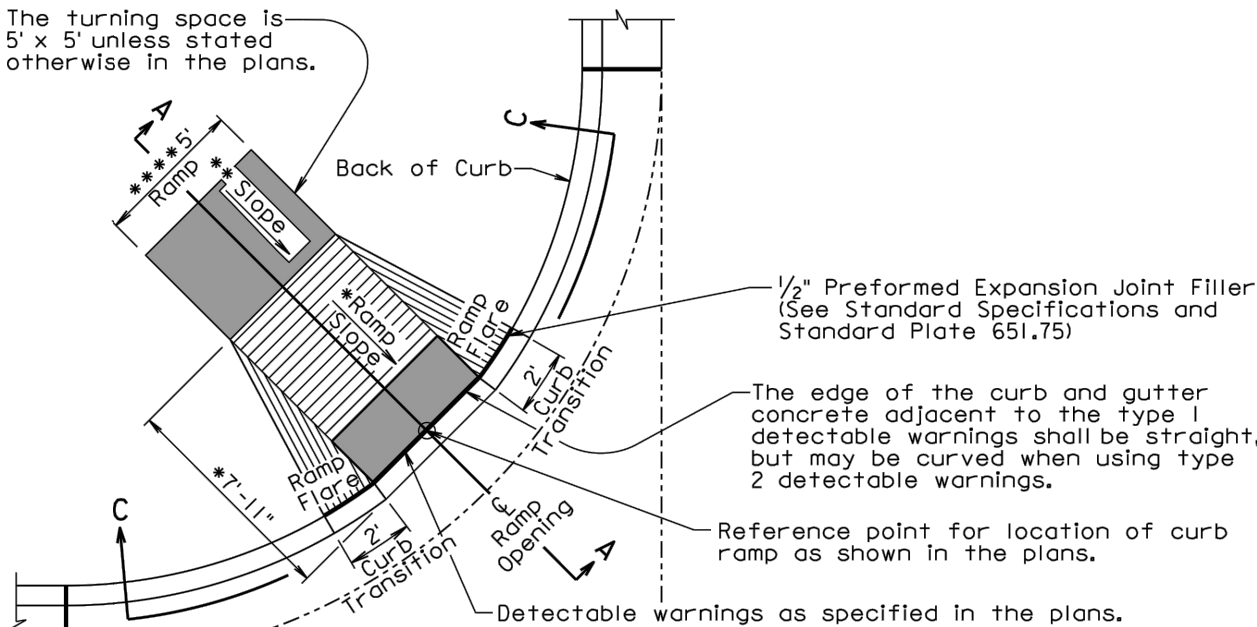
PLATE NUMBER
650.35

Sheet 1 of 1

Published Date: 4th Qtr. 2014



PLAN VIEW
(With 6'+ Curb Transition)



PLAN VIEW
(With 2' Curb Transition)

September 6, 2013

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TYPE 1 CURB RAMP
(PERPENDICULAR CURB RAMP)

PLATE NUMBER
651.01

Sheet 1 of 3

Published Date: 4th Qtr. 2014

The ramp slope shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans.

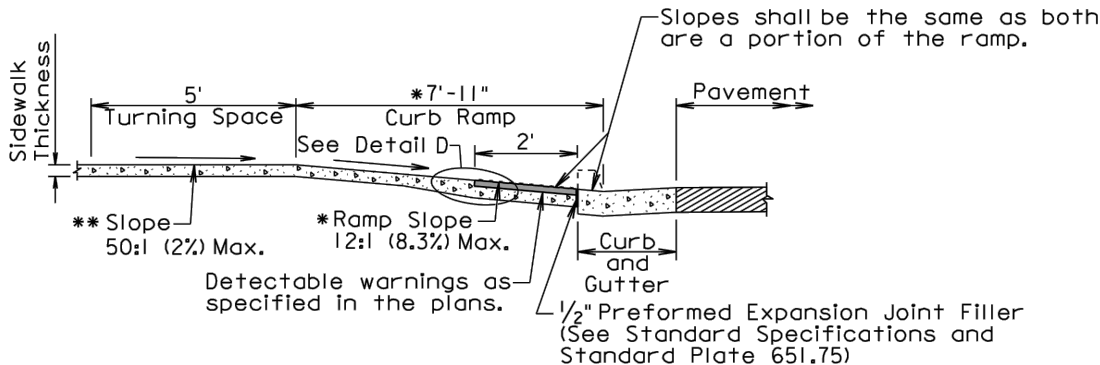
* The cross slope of the ramp shall not be steeper than 50:1 (2%).

The 7'-11" dimension was computed based on a flat roadway profile, a continuous 2% theoretical slope from top of theoretical curb to the top of ramp, and a 6" high curb. The dimension shall be adjusted based on the curb type shown in the plans, the roadway geometrics, and the sidewalk geometrics.

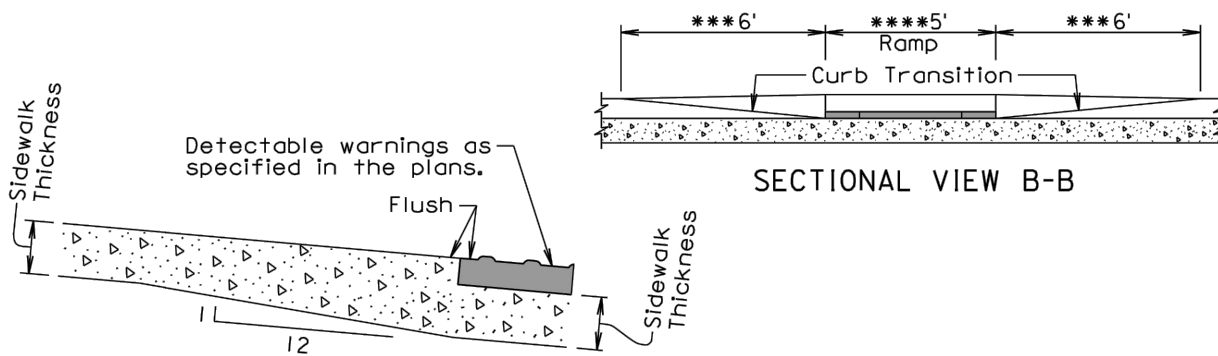
** The slope in the turning space shall not be steeper than 50:1 (2%) in any direction of pedestrian travel.

*** The curb transition shall be a minimum of 6' long, a maximum of 10' long, and the curb transition slope shall not be steeper than 10:1 (10%) unless stated otherwise in the plans.

**** The ramp width is 5' unless stated otherwise in the plans.

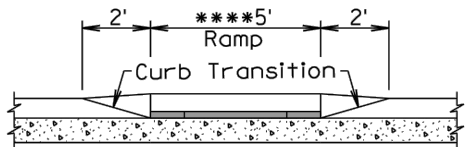


SECTION A-A



SECTIONAL VIEW B-B

DETAIL D



SECTIONAL VIEW C-C

September 6, 2013

Published Date: 4th Qtr. 2014	S D D O T	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 2 of 3

GENERAL NOTES:

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

For illustrative purpose only, PCC fillet sections are shown in the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section, with curved curb and gutter, or with straight curb and gutter.

For illustrative purpose only, the curb ramp location is shown at the center of a PCC fillet section. The curb ramp shall be placed at the location stated in the plans.

Sidewalk shall not be placed adjacent to the ramp flares when a 2' curb transition is used unless shown otherwise in the plans.

* Care shall be taken to ensure a uniform grade on the ramp, free of sags and short grade changes.

Surface texture of the ramp shall be obtained by coarse brooming transverse to the slope of the ramp.

The normal gutter line profile shall be maintained through the area of the ramp.

Joints shall be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking.

Care shall be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings shall be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings shall be incidental to the corresponding detectable warning bid item.

There will be no separate payment for curb ramps. The curb ramp shall be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk bid item. The square foot area of the detectable warnings shall be included in the measured and paid for quantity of sidewalk.

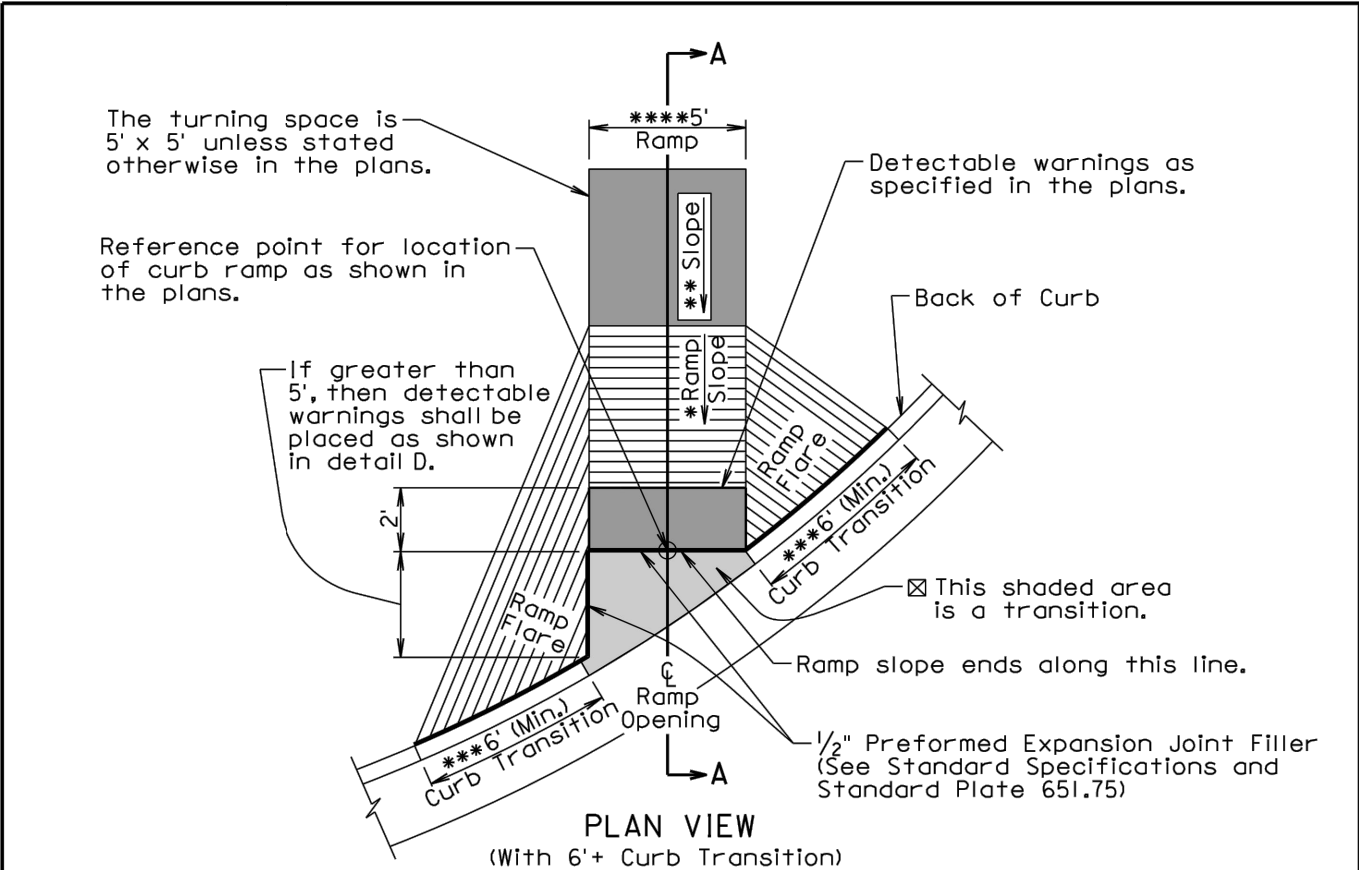
The curb transitions and ramp opening shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used. The curb transitions and ramp opening shall be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section bid item when a PCC fillet section is used.

The type 1 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals shall be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

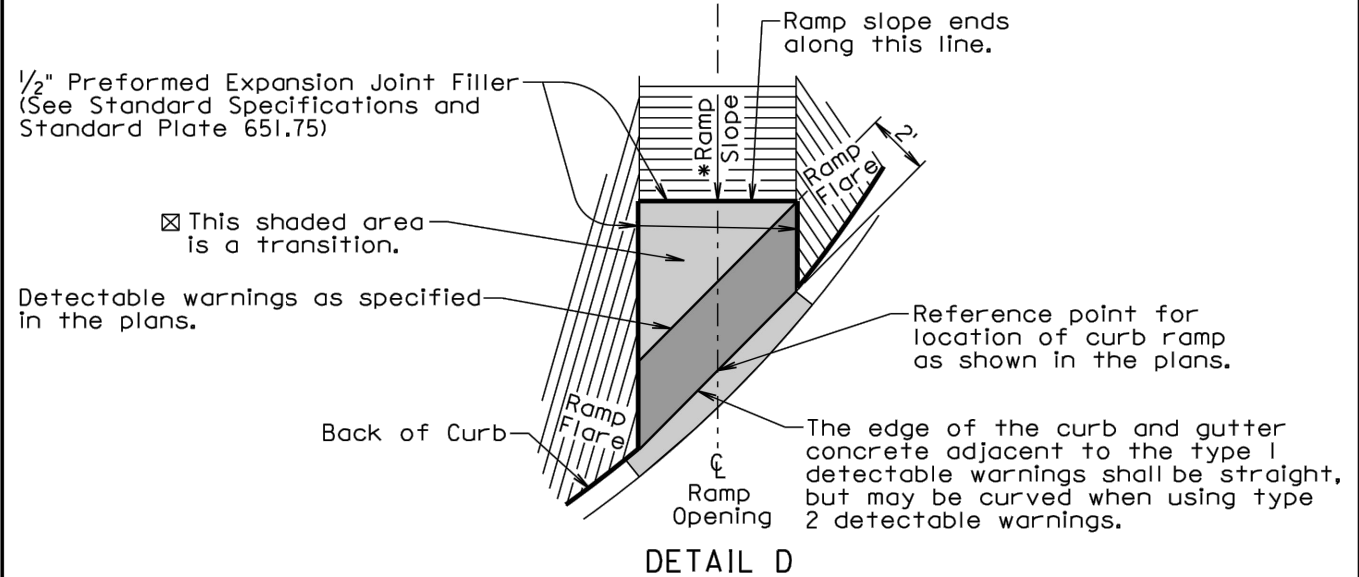
The type 2 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding shall be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

September 6, 2013

Published Date: 4th Qtr. 2014	S D D O T	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 3 of 3

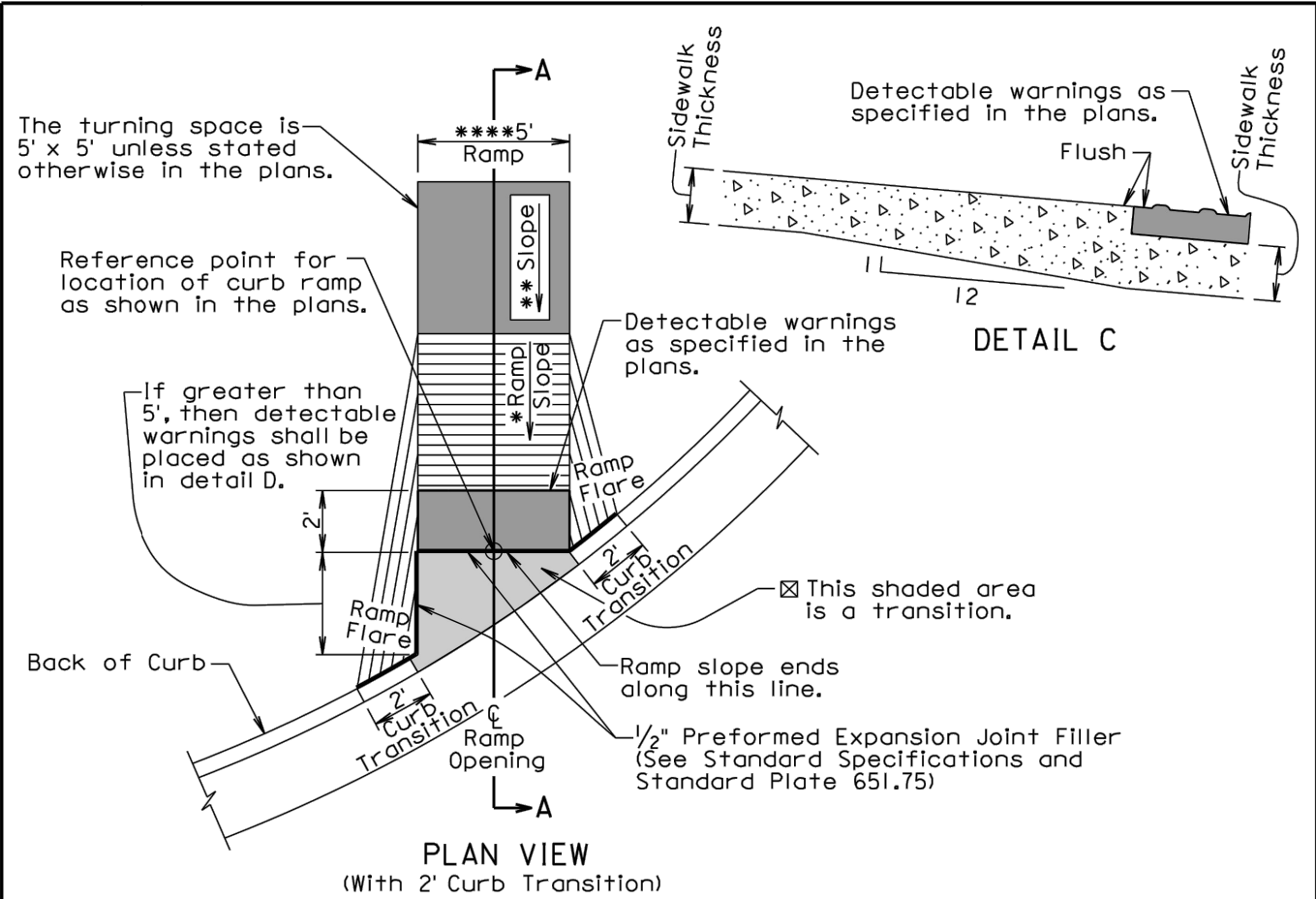


- ☒ The slope within the transition area shall not be steeper than a 20:1 (5%). The concrete within the transition shall be placed monolithic with the curb and gutter or fillet section concrete. The concrete thickness within the transition shall be the same as the curb and gutter or fillet section concrete thickness.
- ***The curb transition shall be a minimum of 6' long, a maximum of 10' long, and the curb transition slope shall not be steeper than a 10:1 (10%) unless stated otherwise in the plans.

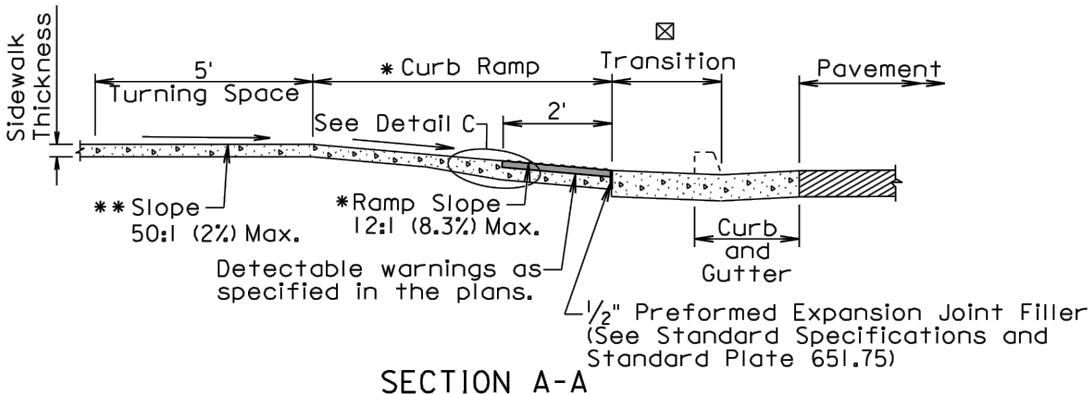


September 6, 2013

Published Date: 4th Qtr. 2014	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 1 of 3



- The ramp slope shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans.
- The cross slope of the ramp shall not be steeper than 50:1 (2%).
- **The slope in the turning space shall not be steeper than a 50:1 (2%) in any direction of pedestrian travel.
- ****The ramp width is 5' unless stated otherwise in the plans.



September 6, 2013

Published Date: 4th Qtr. 2014	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 2 of 3

GENERAL NOTES:

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

The curb ramp depicted on this standard plate may be used with a PCC fillet section, with curved curb and gutter, or with straight curb and gutter. The curb ramp shall be placed at the location stated in the plans.

Sidewalk shall not be placed adjacent to the ramp flares when a 2' curb transition is used unless shown otherwise in the plans.

* Care shall be taken to ensure a uniform grade on the ramp, free of sags and short grade changes.

Surface texture of the ramp shall be obtained by coarse brooming transverse to the slope of the ramp.

The normal gutter line profile shall be maintained through the area of the ramp.

Joints shall be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking.

Care shall be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings shall be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings shall be incidental to the corresponding detectable warning bid item.

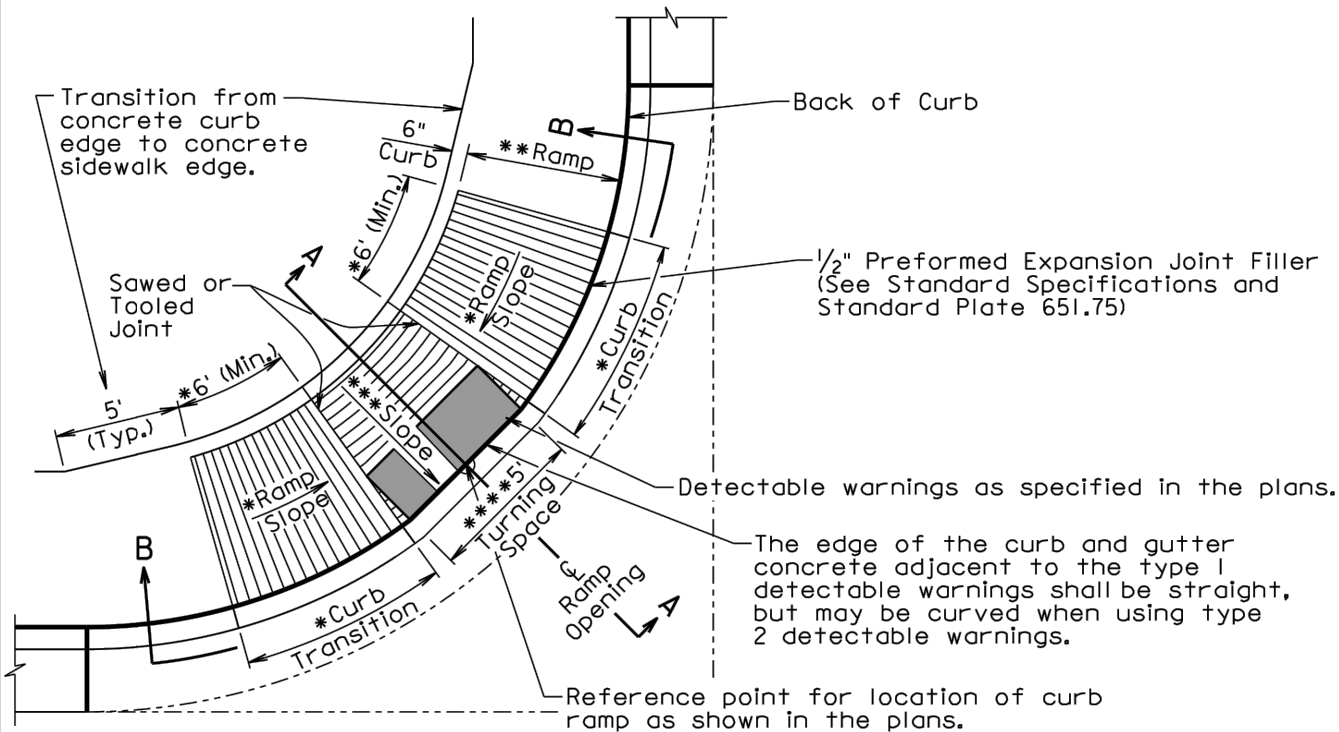
There will be no separate payment for curb ramps. The curb ramp shall be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk bid item. The square foot area of the detectable warnings shall be included in the measured and paid for quantity of sidewalk.

The curb transitions and ramp opening shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used. The curb transitions and ramp opening shall be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section bid item when a PCC fillet section is used.

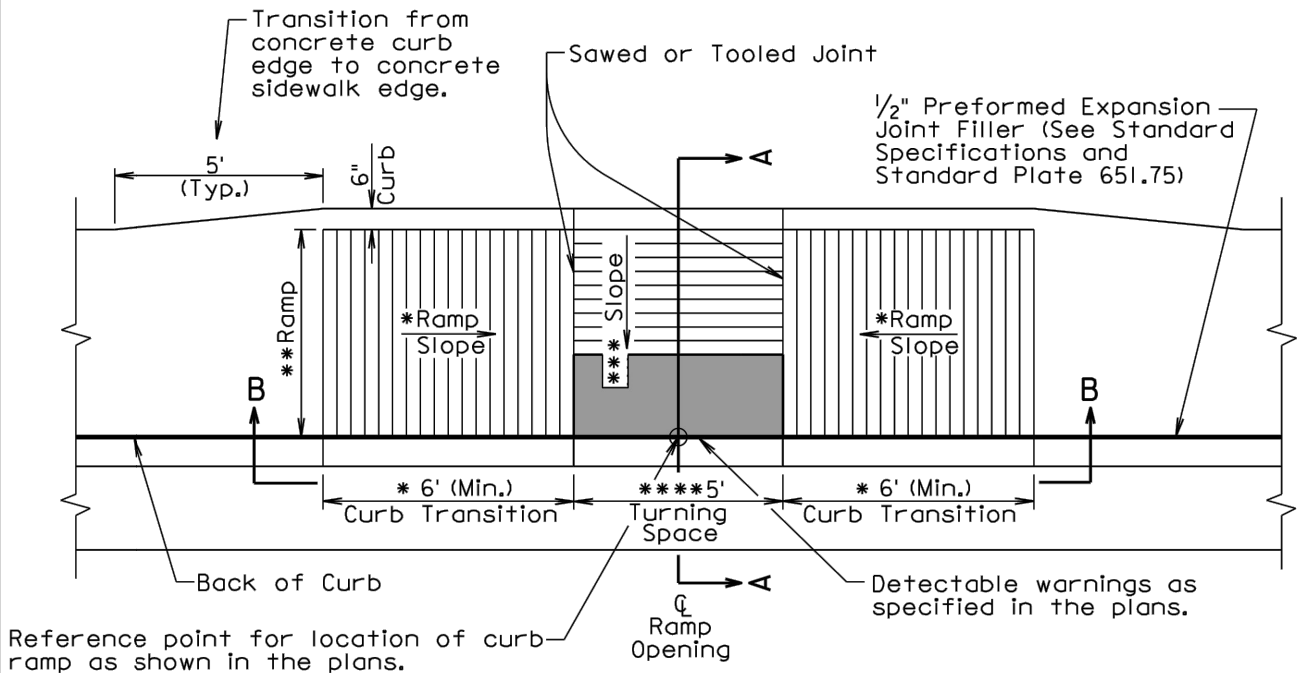
All costs for furnishing and installing the transition area at the base of the ramp shall be incidental to the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used and shall be incidental to the contract unit price per square yard for the corresponding PCC fillet section bid item when a PCC fillet section is used.

The type 1 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals shall be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

The type 2 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding shall be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".



PLAN VIEW
(With Curved Curb and Gutter)



PLAN VIEW
(With Straight Curb and Gutter)

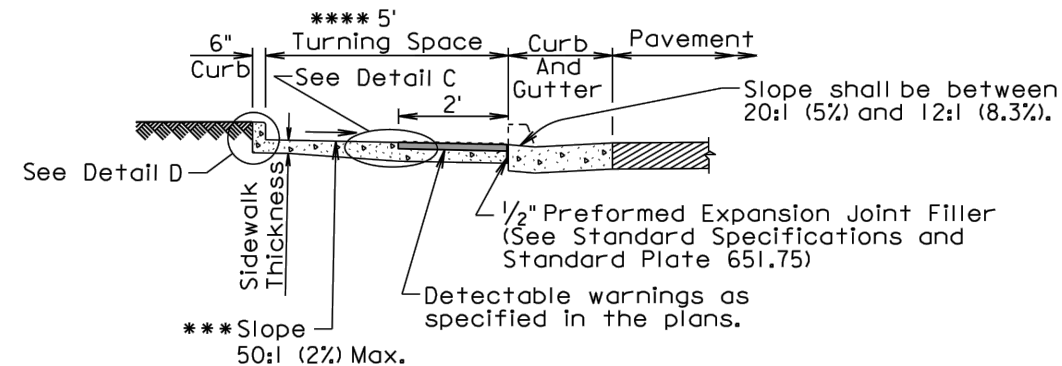
* The curb transition slope shall match the ramp slope. The ramp slope, at any location of the ramp, shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans. The minimum length of the curb transition shall be 6'.

** The ramp cross slope shall not be steeper than a 50:1 (2%) and the ramp width is 5' unless stated otherwise in the plans.

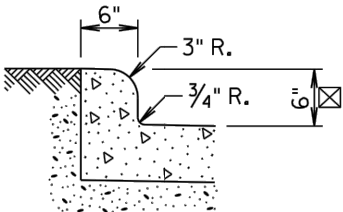
*** The slope in the turning space shall not be steeper than 50:1 (2%) in any direction of pedestrian travel.

**** The turning space is 5' x 5' unless stated otherwise in the plans.

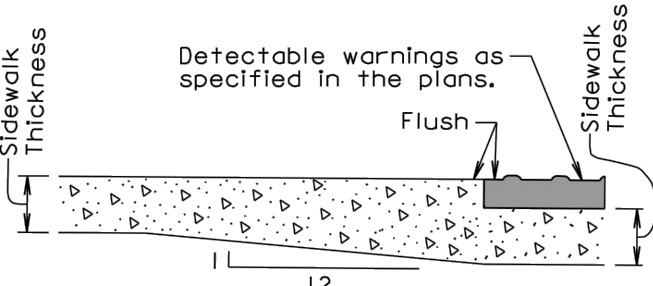
☒ The curb height shall be 6" unless stated otherwise in the plans.



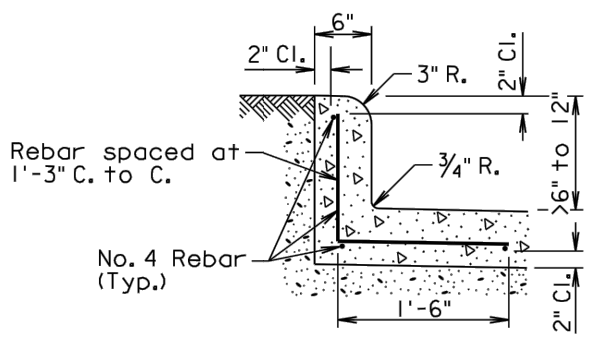
SECTION A-A



DETAIL D

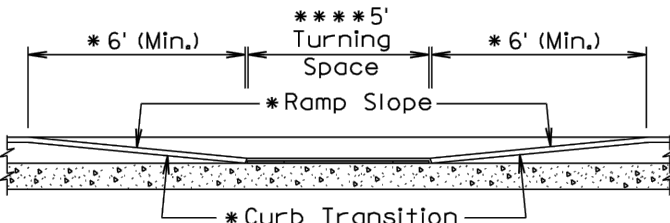


DETAIL C



DETAIL D

(Use this detail when the curb height is greater than 6" and less than 12")



SECTIONAL VIEW B-B

September 6, 2013

Published Date: 4th Qtr. 2014	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 2 of 3

GENERAL NOTES:

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

For illustrative purpose only, a PCC fillet section is shown in one of the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section, with curved curb and gutter, or with straight curb and gutter.

The curb ramp shall be placed at the location stated in the plans.

Sidewalk adjacent to the curb ramp shall be as shown in the plans.

Care shall be taken to ensure a uniform grade on the ramp, free of sags and short grade changes.

Surface texture of the ramp shall be obtained by coarse brooming transverse to the slope of the ramp.

The normal gutter line profile shall be maintained through the area of the ramp.

Joints shall be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking (see plan view for joint location).

Care shall be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings shall be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings shall be incidental to the corresponding detectable warning bid item.

When curb height is greater than 6" and less than 12", reinforcing steel is required in accordance with the detail on sheet 2 of 3. The reinforcing steel shall conform to ASTM A615, Grade 60. Cost for furnishing and installing the reinforcing steel shall be incidental to the contract unit price per square foot for the corresponding concrete sidewalk bid item.

There will be no separate payment for curb ramps. The curb ramp shall be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk bid item. The square foot area of the detectable warnings and the curb along the short radius shall be included in the measured and paid for quantity of sidewalk.

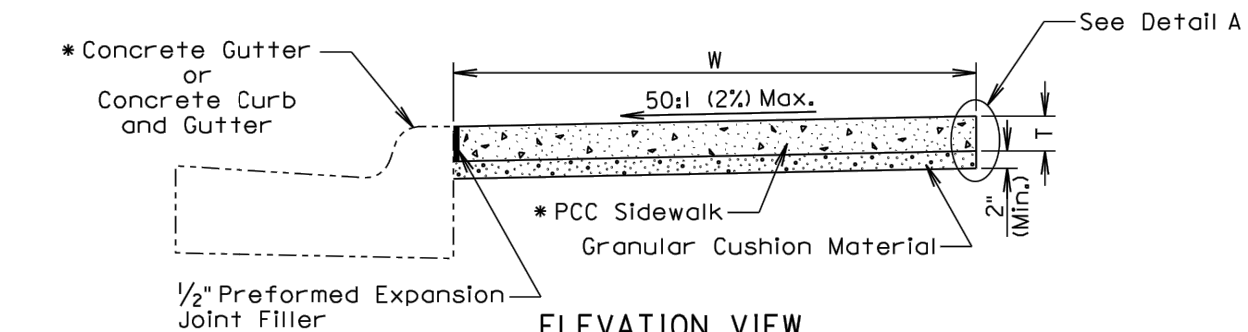
The curb transitions and ramp opening shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used. The curb transitions and ramp opening shall be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section bid item when a PCC fillet section is used.

The type 1 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals shall be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

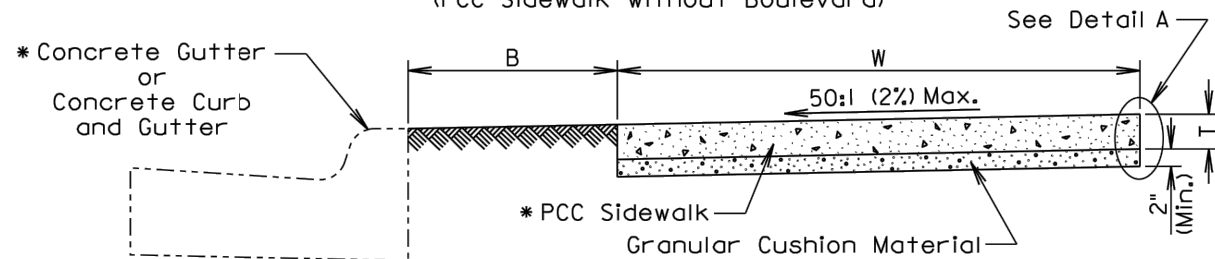
The type 2 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding shall be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

September 6, 2013

Published Date: 4th Qtr. 2014	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 3 of 3

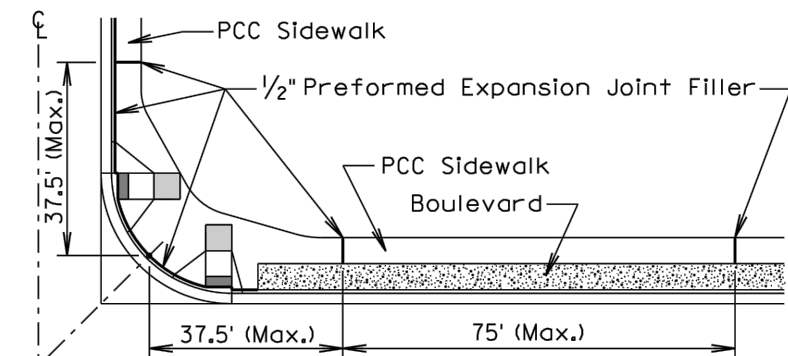


ELEVATION VIEW
(PCC Sidewalk without Boulevard)



ELEVATION VIEW
(PCC Sidewalk with Boulevard)

- B Width of boulevard as specified in the plans.
T Thickness of PCC sidewalk as specified in the plans.
W Width of PCC sidewalk as specified in the plans.
* Type as specified in the plans.



PLAN VIEW

GENERAL NOTES:

The PCC sidewalk shall be constructed in accordance with Section 65I of the Standard Specifications.

The maximum length between expansion joints in PCC sidewalk is 75 feet.

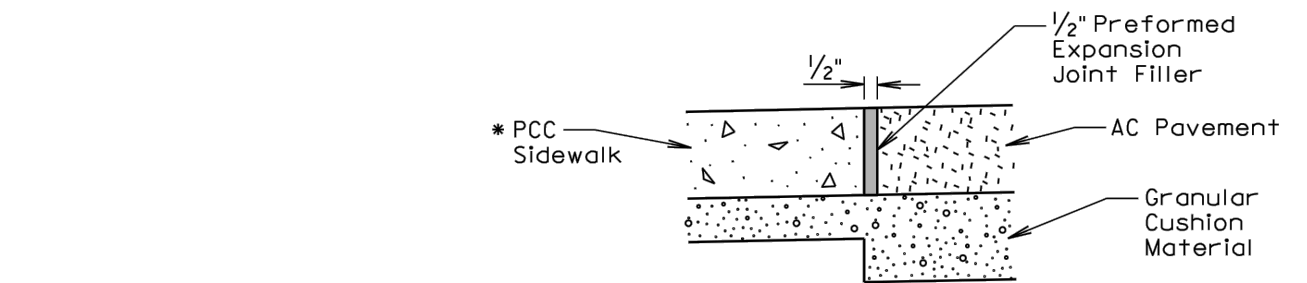
PCC sidewalk placed adjacent to intersection of roadways shall have an expansion joint placed transversely a maximum of 37.5 feet from the intersection. See PLAN VIEW.

An expansion joint in PCC sidewalk shall consist of a 1/2 inch thick preformed expansion joint filler material placed full depth and width of the PCC sidewalk.

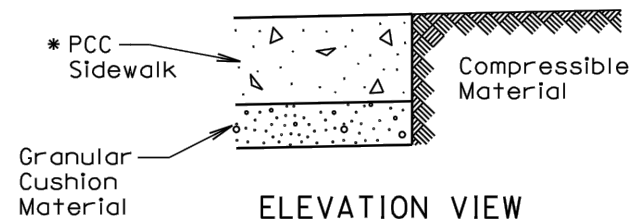
** Large areas of PCC pavement adjacent to PCC sidewalk may require a different joint treatment than shown in the detail. If a different joint detail is necessary, plans will contain the joint detail and the Contractor shall construct the joint treatment in accordance with the plans.

August 31, 2013

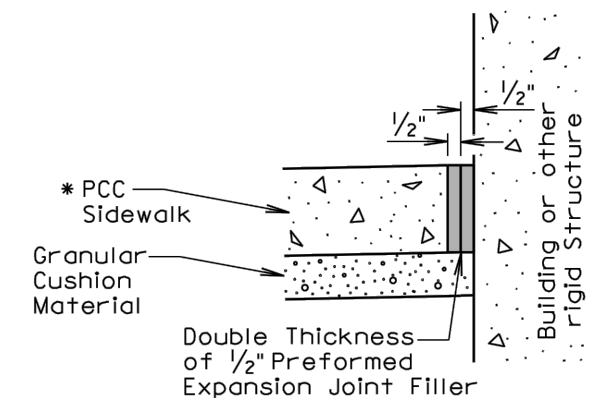
Published Date: 4th Qtr. 2014	S D D O T	PCC SIDEWALK	PLATE NUMBER
			65I.75
			Sheet 1 of 2



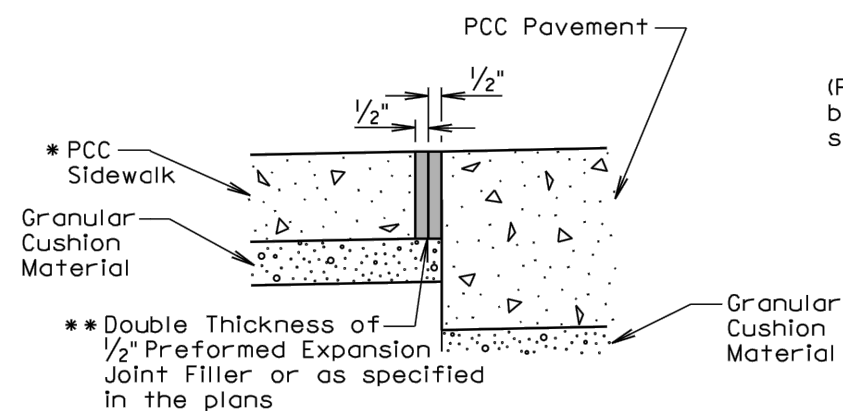
ELEVATION VIEW
(PCC sidewalk adjacent to
asphalt concrete pavement)



ELEVATION VIEW
(PCC sidewalk adjacent to
earthen material, landscape
rock, or other compressible
materials)



ELEVATION VIEW
(PCC sidewalk adjacent to
building or other rigid
structure)



ELEVATION VIEW
(PCC sidewalk adjacent
to PCC pavement)

Detail A
(Use Appropriate Detail(s))

August 31, 2013

Published Date: 4th Qtr. 2014	S D D O T	PCC SIDEWALK	PLATE NUMBER
			65I.75
			Sheet 2 of 2