

PROJECT SPECIFICATIONS

2024 SCCTD Bike Trail 159 Bridge Deck Replacement

ST. CLAIR COUNTY, ILLINOIS

May 2024



ST. CLAIR COUNTY TRANSIT DISTRICT

NOTICE TO BIDDERS

The St. Clair County Transit District, St. Clair County, Illinois, will receive sealed bids for **2024 SCCTD Bike Trail 159 Bridge Deck Replacement** until **11:00 A.M.**, on **MAY 14, 2024**, at the office of the St. Clair County Transit District. All bids will be publicly opened and read aloud at **11:05 A.M.**, on **MAY 14, 2024**. **The sealed bids must be delivered to the St. Clair County Transit District office before 11:00 A.M., during regular business hours.** The Contract Documents, including Plans and Specifications, are on file at the office of the St. Clair County Transit District at 27 North Illinois Street, Belleville, Illinois, 62220.

The proposed project consists of the removal and replacement of the existing treated wood deck for the bike trail bridge over IL Rt 159 in Swansea, Illinois and any other work necessary to complete the project as described. All work shall be performed in accordance with the Illinois Department of Transportation (IDOT) Standard Specifications for Road and Bridge Construction, edition in effect at the time of the bid.

IDOT Prequalification is required for all bidders.

No less than the prevailing rate of wages, as determined in accordance with the Illinois Prevailing Wage Act, shall be paid to all laborers, operators, teamsters, masons, plumbers, and any workers employed in construction on this project.

Each bidder must deposit with his bid, security in the amount of not less than five percent (5%) of the bidder's total bid price, such security being an acceptable bid bond, certified check, or cashier's check. The successful bidder will be required to furnish a satisfactory Performance Bond in the full amount of the bid.

Contractors must register their email with the St. Clair County Transit District by emailing Tony Erwin at terwin@scctd.org. Bids will not be accepted or opened which have been received from any bidder who is not a bid document holder of record.

All questions shall be forwarded to Tony Erwin by email at terwin@scctd.org.

ST. CLAIR COUNTY TRANSIT DISTRICT

PROPOSAL

2024 SCCTD Bike Trail 159 Bridge Deck Replacement

ST. CLAIR COUNTY TRANSIT DISTRICT

To: The Chairman and Board
St. Clair County Transit District

The undersigned, having familiarized (himself/itself/themselves) with the local conditions affecting the cost of the work and with the Contract Documents, including the Notice to Bidders, General Conditions, Special Provisions, Specifications for Workmanship and Materials, Proposal, Form of Contract, Form of Bonds, etc., and with the plans and addenda on file in the Office of the St. Clair County Transit District, hereby proposes to perform all work required to be performed and to provide and furnish all of the labor, materials, necessary tools, expendable equipment, and all utility and transportation services necessary to perform and complete in a workmanlike manner all work required in connection with the **2024 SCCTD Bike Trail 159 Bridge Deck Replacement** for the St. Clair County Transit District, all in accordance with the Plans and Specifications, including:

ADDENDA NUMBER

DATE

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

issued thereto and acknowledged herein, for the unit prices given in the following
SCHEDULE OF QUANTITIES AND BID UNIT PRICES:

PROPOSAL

2024 SCCTD Bike Trail 159 Bridge Deck Replacement

SCHEDULE OF QUANTITIES AND BID UNIT PRICES

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	L.S.	1		
2	Deck Demo	L.S.	1		
3	Deck Replacement	L.S.	1		
4	Traffic Control	L.S.	1		
				Total	

PROPOSAL

If awarded this contract, the undersigned agrees to commence work within ten (10) days after award of the contract or as otherwise directed, and to complete the work as outlined in the Completion Date special provision of the **2024 SCCTD Bike Trail 159 Bridge Deck Replacement** specifications.

Accompanying this proposal is a (certified check), (cashier's check), (bid bond), in the amount of _____dollars (\$ _____), payable to the St. Clair County Transit District, which it is agreed will be forfeited to the St. Clair County Transit District if the undersigned fails to execute the contract.

BIDDER - COMPANY NAME

ADDRESS

CITY / STATE / ZIP

BY:

TITLE DATE

PROPOSAL

NON-COLLUSION AFFIDAVIT

The bidder, by its officers and their authorized agents or representatives present at the time of filing this bid, being duly sworn on their oaths, say that neither they nor any of them have in any way, directly or indirectly, entered into any arrangement or agreement with any other bidder, nor with any public officer of the ST. CLAIR COUNTY TRANSIT DISTRICT whereby such affiant or affiants, or either of them, has paid or is to pay to such other bidder or public officer any sum of money; nor has given or is to give such other bidder or public officer anything of value whatever, or such affiant or affiants; or either of them, has not, directly or indirectly, entered into any arrangement or agreement with any other bidder or bidders, which tends to or does lessen or destroy free competition in the letting of the Contract sought for by the attached bids; nor any inducement of any form or character, other than that which appears upon the face of the bid, will be suggested, offered, paid or delivered to any person whomsoever to influence the acceptance of the said bid or awarding of the Contract; nor has this bidder entered into any agreement or understanding of any kind whatsoever, with any person, in any way or manner, for any of the proceeds of the contract sought by this bid.

_____ BY: _____
BIDDER - COMPANY NAME

_____ TITLE _____ DATE _____
ADDRESS

CITY / STATE / ZIP

Subscribed and sworn to before me this _____ day of _____, 2024.

NOTARY PUBLIC

My commission expires: _____

NOTE: Bidders should not add any conditions or qualifying statements to this bid, as otherwise the bid may be declared irregular as being not responsive to the Advertisement for Bids.

PROPOSAL

BID BOND

WE, _____, as PRINCIPAL, and _____, as SURETY with authority to do business in Illinois, are held and firmly bound unto the ST. CLAIR COUNTY TRANSIT DISTRICT in the penal sum of Five Percent (5%) of the total bid price lawful money of the United States. We bind ourselves jointly and severally, and our joint and several heirs, executors, administrators, successors, and assigns, firmly by these presents, this _____ day of _____, 2024, to pay to the ST. CLAIR COUNTY TRANSIT DISTRICT this sum under the conditions of this instrument.

WHEREAS the condition of the foregoing obligation is such that, the said PRINCIPAL is submitting a written proposal to the ST. CLAIR COUNTY TRANSIT DISTRICT for **2024 SCCTD Bike Trail 159 Bridge Deck Replacement.**

THEREFORE, if the proposal is accepted and a contract awarded to the PRINCIPAL by the ST. CLAIR COUNTY TRANSIT DISTRICT for the aforementioned improvement, and the PRINCIPAL shall within ten (10) days after receipt of the notice of award enter into a formal contract and furnish evidence of the required insurance coverage, all as required by the project specifications, then this obligation shall become void; otherwise, it shall remain in full force and effect.

IN THE EVENT the ST. CLAIR COUNTY TRANSIT DISTRICT determines that the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the ST. CLAIR COUNTY TRANSIT DISTRICT shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this _____ day of _____, 2024.

(SEAL) PRINCIPAL

PRINCIPAL - COMPANY NAME

ADDRESS

CITY / STATE / ZIP

ATTEST: _____

BY: _____

TITLE DATE

TITLE DATE

(SEAL) SURETY

SURETY - COMPANY NAME

BY:

ATTORNEY-IN-FACT DATE

Subscribed and sworn to before me this _____ day of _____, 2024.

NOTARY PUBLIC

My commission expires: _____

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2024

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction
(Adopted 1-1-22) (Revised 1-1-24)

SUPPLEMENTAL SPECIFICATIONS

<u>Std. Spec. Sec.</u>		<u>Page No.</u>
202	Earth and Rock Excavation	1
204	Borrow and Furnished Excavation	2
207	Porous Granular Embankment	3
211	Topsoil and Compost	4
407	Hot-Mix Asphalt Pavement (Full-Depth)	5
420	Portland Cement Concrete Pavement	6
502	Excavation for Structures	7
509	Metal Railings	8
540	Box Culverts	9
542	Pipe Culverts	29
586	Granular Backfill for Structures	34
630	Steel Plate Beam Guardrail	35
644	High Tension Cable Median Barrier	36
665	Woven Wire Fence	37
782	Reflectors	38
801	Electrical Requirements	40
821	Roadway Luminaires	43
1003	Fine Aggregates	44
1004	Coarse Aggregates	45
1010	Finely Divided Minerals	46
1020	Portland Cement Concrete	47
1030	Hot-Mix Asphalt	48
1061	Waterproofing Membrane System	49
1067	Luminaire	50
1097	Reflectors	57



Check Sheet for Recurring Special Provisions

Local Public Agency	County	Section Number
St. Clair County Transit District	St. Clair	2024 SCCTD Bike Trail 159 Bridge Deck Replacement

Check this box for lettings prior to 01/01/2024.

The Following Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

Recurring Special Provisions

<u>Check Sheet #</u>		<u>Page No.</u>
1	<input type="checkbox"/> Additional State Requirements for Federal-Aid Construction Contracts	59
2	<input type="checkbox"/> Subletting of Contracts (Federal-Aid Contracts)	62
3	<input type="checkbox"/> EEO	63
4	<input type="checkbox"/> Specific EEO Responsibilities Non Federal-Aid Contracts	73
5	<input type="checkbox"/> Required Provisions - State Contracts	78
6	<input type="checkbox"/> Asbestos Bearing Pad Removal	84
7	<input type="checkbox"/> Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal	85
8	<input type="checkbox"/> Temporary Stream Crossings and In-Stream Work Pads	86
9	<input type="checkbox"/> Construction Layout Stakes	87
10	<input type="checkbox"/> Use of Geotextile Fabric for Railroad Crossing	90
11	<input type="checkbox"/> Subsealing of Concrete Pavements	92
12	<input type="checkbox"/> Hot-Mix Asphalt Surface Correction	96
13	<input type="checkbox"/> Pavement and Shoulder Resurfacing	98
14	<input type="checkbox"/> Patching with Hot-Mix Asphalt Overlay Removal	99
15	<input type="checkbox"/> Polymer Concrete	101
16	<input type="checkbox"/> Reserved	103
17	<input type="checkbox"/> Bicycle Racks	104
18	<input type="checkbox"/> Temporary Portable Bridge Traffic Signals	106
19	<input type="checkbox"/> Nighttime Inspection of Roadway Lighting	108
20	<input type="checkbox"/> English Substitution of Metric Bolts	109
21	<input type="checkbox"/> Calcium Chloride Accelerator for Portland Cement Concrete	110
22	<input type="checkbox"/> Quality Control of Concrete Mixtures at the Plant	111
23	<input type="checkbox"/> Quality Control/Quality Assurance of Concrete Mixtures	119
24	<input type="checkbox"/> Reserved	135
25	<input type="checkbox"/> Reserved	136
26	<input type="checkbox"/> Temporary Raised Pavement Markers	137
27	<input type="checkbox"/> Restoring Bridge Approach Pavements Using High-Density Foam	138
28	<input type="checkbox"/> Portland Cement Concrete Inlay or Overlay	141
29	<input type="checkbox"/> Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	145
30	<input type="checkbox"/> Longitudinal Joint and Crack Patching	148
31	<input type="checkbox"/> Concrete Mix Design - Department Provided	150
32	<input type="checkbox"/> Station Numbers in Pavements or Overlays	151

Local Public Agency

County

Section Number

St. Clair County Transit District

St. Clair

2024 SCCTD Bike Trail 159
Bridge Deck Replacement

The Following Local Roads And Streets Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

Local Roads And Streets Recurring Special Provisions

<u>Check Sheet #</u>		<u>Page No.</u>
LRS 1	Reserved	153
LRS 2	<input type="checkbox"/> Furnished Excavation	154
LRS 3	<input checked="" type="checkbox"/> Work Zone Traffic Control Surveillance	155
LRS 4	<input checked="" type="checkbox"/> Flaggers in Work Zones	156
LRS 5	<input checked="" type="checkbox"/> Contract Claims	157
LRS 6	<input checked="" type="checkbox"/> Bidding Requirements and Conditions for Contract Proposals	158
LRS 7	<input type="checkbox"/> Bidding Requirements and Conditions for Material Proposals	164
LRS 8	Reserved	170
LRS 9	<input type="checkbox"/> Bituminous Surface Treatments	171
LRS 10	Reserved	175
LRS 11	<input checked="" type="checkbox"/> Employment Practices	176
LRS 12	<input checked="" type="checkbox"/> Wages of Employees on Public Works	178
LRS 13	<input checked="" type="checkbox"/> Selection of Labor	180
LRS 14	<input type="checkbox"/> Paving Brick and Concrete Paver Pavements and Sidewalks	181
LRS 15	<input checked="" type="checkbox"/> Partial Payments	184
LRS 16	<input checked="" type="checkbox"/> Protests on Local Lettings	185
LRS 17	<input checked="" type="checkbox"/> Substance Abuse Prevention Program	186
LRS 18	<input type="checkbox"/> Multigrade Cold Mix Asphalt	187
LRS 19	<input type="checkbox"/> Reflective Crack Control Treatment	188

SPECIAL PROVISIONS TABLE OF CONTENTS

PROJECT LOCATION	1
DESCRIPTION OF WORK.....	1
GENERAL.....	1
EXAMINATION OF SITE.....	1
PREQUALIFICATION	1
CONTRACT ADMINISTRATOR.....	1
PROJECT COORDINATION.....	2
PERMITTING.....	2
COOPERATION WITH DISTRICT 8 OPERATIONS	2
COMPLETION DATE.....	2
DECK REMOVAL.....	2
DECK REPLACEMENT	2
INVOICES.....	2
RETAINAGE	3
PROJECT LABOR AGREEMENT (PLA) AND PREVAILING WAGES	3
TRAFFIC CONTROL PLAN	3
DISPOSAL OF MATERIALS	3
CONSTRUCTION LAYOUT	3
EQUIPMENT AND MATERIAL STORAGE	4
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES.....	4
PROTECTION OF EXISTING FACILITIES	4
INDEMNIFICATION	4
SAFETY AND PROTECTION	5
CONFLICTS WITH PERSONNEL.....	6
COMPENSABLE DELAY COSTS (BDE).....	7
INSURANCE (LR107-4)	11
VEHICLE AND EQUIPMENT WARNING LIGHTS	12
WORK ZONE TRAFFIC CONTROL DEVICES (BDE).....	13
TRAFFIC CONTROL AND PROTECTION STANDARD 701101	15
TRAFFIC CONTROL AND PROTECTION STANDARD 701106.....	16
TRAFFIC CONTROL AND PROTECTION STANDARD 701602.....	17
TRAFFIC CONTROL AND PROTECTION STANDARD 701701	21
TRAFFIC CONTROL AND PROTECTION STANDARD 701901	22
EXISTING STRUCTURE PLANS.....	25

SPECIAL PROVISIONS

2024 SCCTD Bike Trail 159 Bridge Deck Replacement

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", latest edition in effect on the date of the invitation for bids, as adopted by the Illinois Department of Transportation (IDOT) and the Supplemental Specifications and Recurring Special Provisions adopted therewith, and the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" latest edition in effect on the date of the invitation for bids, shall apply to and govern the construction of the above designated project. In case of conflict with any part, or parts, of said specifications, these special provisions shall take precedence over the Standard Specifications and inserted special provisions.

All references to Department and Engineer in the "Standard Specifications for Road and Bridge Construction" shall be defined as the St. Clair County Transit District or their authorized representative.

PROJECT LOCATION: The project is located at the structure carrying MetroBikeLink over IL Rt 159 in Swansea, Illinois and adjacent to the MetroLink Rail.

DESCRIPTION OF WORK: The proposed project consists of the complete removal and replacement of the existing pressure treated timber deck and nailers, including all carriage bolts, self-drilling screws, neoprene rubber barrier, and any other work necessary to complete the project as described.

GENERAL: The Contractor shall furnish all labor, materials, and equipment to complete the work as described in accordance with these special provisions and the applicable sections of the IDOT Standard Specifications for Road and Bridge Construction.

EXAMINATION OF SITE: The Contractor shall be responsible for completing any necessary site inspections prior to submitting a bid on this project. Upon receipt of a bid, it shall be assumed that the Contractor is fully familiar with the project site and the work to be completed.

PREQUALIFICATION: The Contractor shall be prequalified through IDOT.

CONTRACT ADMINISTRATOR: The St. Clair County Transit District or its authorized representative will be the assigned Contract Administrator of this contract. This individual will be the point of contact for the Contractor regarding any issues or concerns relating to the contract. The Contract Administrator will also be responsible for scheduling site visits with the Contractor, reviewing sites for completion, enforcement of contract provisions and the receipt of invoices as provided by the Contractor. The Contractor will be provided contact information for the Contract Administrator upon award of the contract and will be subsequently notified should the administrator change during the life of the contract.

PROJECT COORDINATION: A mandatory pre-construction meeting shall be scheduled within one week of contract ratification between the Contractor and the St. Clair County Transit District. All work will be scheduled through the St. Clair County Transit District Director of Facilities. Contractor must present a preliminary work schedule at the pre-construction meeting. The St. Clair County Transit District will have progress meetings, if necessary, which shall be held at the St. Clair County Transit District Office.

PERMITTING: The Contractor shall be required to obtain any necessary permits to complete the project prior to beginning work.

COOPERATION WITH IDOT DISTRICT 8 OPERATIONS: Prior to beginning work activities, the Contractor will be required to obtain authorization from the Illinois Department of Transportation for work within their right-of-way. The Contractor shall contact and coordinate all necessary safety and flagging requirements with the Permits Unit Chief or their representative while working within the IDOT right of way.

Ms. RuAnna Stumpf
IDOT D8 Permits Unit Chief
1102 Eastport Plaza Drive
Collinsville, IL 62234
Phone (618) 346-3280
Email ruanna.stumpf@illinois.gov

COMPLETION DATE: The Contractor shall complete all work by November 15, 2024. No work shall be completed until a respective notice to proceed is provided by the St. Clair County Transit District.

DECK REMOVAL: This work shall consist of removal and disposal of the existing pressure treated timber deck planks, guardrail, and nailers, including all carriage bolts, washers, and nuts, self-drilling screws, and neoprene rubber barrier and washers in accordance with the applicable portions of Section 501 of the Standard Specifications.

DECK REPLACEMENT: This work shall consist of replacement of the pressure treated timber deck planks and nailers, including all carriage bolts, washers, and nuts, self-drilling screws, and neoprene rubber barrier and washers. This work will be done in accordance with the applicable portions of Section 507 of the Standard Specifications and as detailed in the original construction plans and notes. All material to be used shall meet or exceed the requirements as outlined in the original project bridge plans included as part of these bid documents.

INVOICES: The St. Clair County Transit District will pay all Contractor submitted invoices on a monthly basis. The St. Clair County Transit District will have 72 hours to inspect the project site before any submitted invoice is processed for payment. Under no circumstances will the Contract Administrator be authorized to pre-pay for work prior to completion or for the partial completion of work. Invoice templates shall follow the standard AIA form. The Contract Administrator can provide a template upon request. If the Contractor elects to use their own invoice, then said invoice shall include the following

features: invoice number, invoice date, individual listing of project site with corresponding cost and account reference along with the date the work was completed. Invoices shall be emailed to the St. Clair County Transit District Office via email provided to the Contractor. All invoices submitted shall be paid **Net 30**.

RETAINAGE: To further assure timely completion of the work, restoration, and clean-up of the project site, 10% of the payment due to the Contractor shall be retained until the project is successfully completed and all punch list items are adequately addressed.

PROJECT LABOR AGREEMENT (PLA) AND PREVAILING WAGES: A PLA shall be required for this project and no less than the prevailing rate of wages, as determined in accordance with the Illinois Prevailing Wage Act, shall be paid to all laborers, operators, teamsters, masons, plumbers, and any workmen employed in the accomplishment of this project. On site wage interviews may be conducted periodically to assure compliance with the prevailing wage rates. **At the time of each payment request, the Contractor must submit copies of weekly payrolls as proof of compliance with prevailing wage rates. Payment will not be made without submittal of this documentation and full compliance with the prevailing wage rates.** For additional information, please visit the Illinois Department of Labor’s Web Site at <https://www2.illinois.gov/idol>.

TRAFFIC CONTROL PLAN: Traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the National Manual on Uniform Traffic Control Devices for Streets and Highways, Illinois Supplement to the National Manual on Uniform Traffic Control Devices, these Special Provisions, and any special details and Highway Standards contained herein. Traffic Control shall be as required by IDOT District 8 Operations.

Special attention is called to Articles 107.09 and 107.14 of the Standard Specifications for Road and Bridge Construction and the following highway standards relating to traffic control:

- 701101
- 701106
- 701602
- 701701
- 701901

In addition, the following Special Provision(s) will also govern traffic control for this project:

- Vehicle and Equipment Warning Lights
- Work Zone Traffic Control Devices

DISPOSAL OF MATERIALS: All materials for disposal shall be removed from the site and properly disposed of at locations provided by the Contractor. The cost for doing this work shall be included in the bid prices and no additional compensation will be allowed.

CONSTRUCTION LAYOUT: The Contractor shall furnish and provide all construction layout and perform all work necessary to remove and replace the existing wood deck and nailers and construct the work as outlined and shown on the plans. The Contractor will be provided adequate reference points to the centerline of survey or other control points as applicable, along with benchmarks to be used during construction.

The Contractor shall provide field forces, equipment, and material to perform the entire layout for the work, set additional stakes, reference points, and any other horizontal or vertical controls, including supplementary benchmarks, necessary to secure a correct layout of the work.

The Contractor shall be responsible for having the finished work conform to the lines, grades, elevations, and dimensions called for in the plans. Any inspection or checking of the Contractor's layout by the Transit District or their agent and the acceptance of all or any part of it shall not relieve the Contractor of his/her responsibility to secure the proper dimensions, grades, and elevations of the several parts of the work. The Contractor shall exercise care in the preservation of stakes and benchmarks and shall have them reset when any are damaged, lost, displaced, removed, or otherwise obliterated.

Cost for this work shall be considered included in the costs of the various items of work being completed as part of the project and no additional compensation will be allowed.

EQUIPMENT AND MATERIAL STORAGE: The Contractor shall use staging locations as to not create an unsafe work area. No other sites shall be used by the Contractor without written approval of the St. Clair County Transit District.

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES: It is the Contractor's responsibility to determine the existence and location of all underground facilities, structures, and utilities and to protect them from damage during construction.

PROTECTION OF EXISTING FACILITIES: The Contractor shall maintain and protect all existing facilities, both on-site and off-site, including but not limited to utilities, roadways, trees, tree limbs, landscaping, lawns, and buildings which are not scheduled for removal or replacement under this project. The Contractor shall provide any required sheeting, shoring, covering or other means and methods to protect existing facilities. The Contractor shall bear all costs and make all arrangements to repair or replace, any existing facility, both on-site and off-site, damaged as a result of construction, which is not scheduled for removal or replacement as part of this project.

INDEMNIFICATION: To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the St. Clair County Transit District, all commissioners of the St. Clair County Transit District Board, all commissioners of the St. Clair County Board, and agents and employees of any of them from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of the St. Clair County Transit District's architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of the Contractor, any subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified

hereunder or arises by or is imposed by laws and regulations regardless of the negligence of any such party.

In any and all claims against the St. Clair County Transit District or any of their consultants, agents, or employees by any employee of the Contractor, any subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any Work or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph A shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any such subcontractor or other person or organization under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

The obligations of the Contractor shall not extend to the liability of the St. Clair County Transit District or their consultants, agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications.

SAFETY AND PROTECTION: The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the project. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

- All employees on the project and other persons and organizations who may be affected thereby; and
- All work, materials, and equipment to be incorporated therein, whether in storage on or off the site; and
- Other property at the site adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.

The Contractor shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons and property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and of underground facilities and utility owners when prosecution of the work may affect them and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any subcontractor, supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts either of them may be liable, shall be remedied by the Contractor (except damage or loss attributable to the fault of drawings or specifications or to the acts or omissions of the St. Clair County Transit District or anyone employed therein or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Contractor). The Contractor's duties and responsibilities for the safety and protection of the work shall continue until such time as all the Work is completed and the St. Clair County Transit District has issued a notice to the Contractor that the work is acceptable (except as

otherwise expressly provided in connection with Substantial Completion).

The Contractor shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent, unless otherwise designated in writing by the Contractor to the St. Clair County Transit District.

In emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, the Contractor, without special instructions or authorization from the St. Clair County Transit District, is obligated to act to prevent threatened damage, injury, or loss. The Contractor shall give the St. Clair County Transit District prompt, written notice if the Contractor believes that any significant changes in the work or variations from the contract documents have been caused thereby. If the St. Clair County Transit District determines that a change in the contract documents is required because of the action taken in response to an emergency, a work directive change or change order will be issued to document the consequences of the changes or variations.

CONFLICTS WITH PERSONNEL: Should a conflict between personnel of the Contractor and the St. Clair County Transit District escalate to the point that it hinders progress of the work and cannot be settled amicably, the Contractor personnel involved in the conflict shall be removed from the project. A personnel conflict shall not give cause for the Contractor to terminate this contract nor to pull employees from the active work site.

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

Revised: April 1, 2019

Revise Article 107.40(b) of the Standard Specifications to read:

“(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

- (1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.
- (2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.
- (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days.”

Revise Article 107.40(c) of the Standard Specifications to read:

“(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

- (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

- (2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the

Contractor's yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

- (3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13.”

Revise Article 108.04(b) of the Standard Specifications to read:

“(b) No working day will be charged under the following conditions.

- (1) When adverse weather prevents work on the controlling item.
- (2) When job conditions due to recent weather prevent work on the controlling item.
- (3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.
- (4) When delays caused by utility or railroad adjustments prevent work on the controlling item.
- (5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.
- (6) When any condition over which the Contractor has no control prevents work on the controlling item.”

Revise Article 109.09(f) of the Standard Specifications to read:

“(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead

other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited.”

Add the following to Section 109 of the Standard Specifications.

“109.13 Payment for Contract Delay. Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

Contract Type	Cause of Delay	Length of Delay
Working Days	Article 108.04(b)(3) or Article 108.04(b)(4)	No working days have been charged for two consecutive weeks.
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

Payment for each of the various costs will be according to the following.

- (a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.
- (b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.
 - (1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

Original Contract Amount	Supervisory and Administrative Personnel
Up to \$5,000,000	One Project Superintendent
Over \$ 5,000,000 - up to \$25,000,000	One Project Manager, One Project Superintendent or Engineer, and One Clerk
Over \$25,000,000 - up to \$50,000,000	One Project Manager, One Project Superintendent, One Engineer, and

	One Clerk
Over \$50,000,000	One Project Manager, Two Project Superintendents, One Engineer, and One Clerk

(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

When an extended traffic control adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

80384

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION
FOR
INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

St. Clair County Transit District, its elected and appointed officials, officers, agents and employees,

both individually and collectively

Bi-State Development Agency, its officers, commissioners, agents and employees

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)

Effective: November 1, 2021

Revised: November 1, 2022

Add the following paragraph after the first paragraph of Article 701.08 of the Standard Specifications:

“The Contractor shall equip all vehicles and equipment with high-intensity oscillating, rotating, or flashing, amber or amber-and-white, warning lights which are visible from all directions. In accordance with 625 ILCS 5/12-215, the lights may only be in operation while the vehicle or equipment is engaged in construction operations.”

80439

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Add the following to Article 701.03 of the Standard Specifications:

“(q) Temporary Sign Supports 1106.02”

Revise the third paragraph of Article 701.14 of the Standard Specifications to read:

“For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer’s specifications.”

Revise the first paragraph of Article 701.15 of the Standard Specifications to read:

“**701.15 Traffic Control Devices.** For devices that must meet crashworthiness standards, the Contractor shall provide a manufacturer’s self-certification or a FHWA eligibility letter for each Category 1 device and a FHWA eligibility letter for each Category 2 and Category 3 device used on the contract. The self-certification or letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device.”

Revise the first six paragraphs of Article 1106.02 of the Standard Specifications to read:

“**1106.02 Devices.** Work zone traffic control devices and combinations of devices shall meet crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 1 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 2 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact

attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. It is preferable for Category 4 devices manufactured after December 31, 2019 to be MASH-16 compliant; however, there are currently no crash tested devices in this category, so it remains exempt from the NCHRP 350 or MASH compliance requirement.

For each type of device, when no more than one MASH-16 compliant is available, an NCHRP 350 or MASH-2009 compliant device may be used, even if manufactured after December 31, 2019.”

Revise Articles 1106.02(g), 1106.02(k), and 1106.02(l) to read:

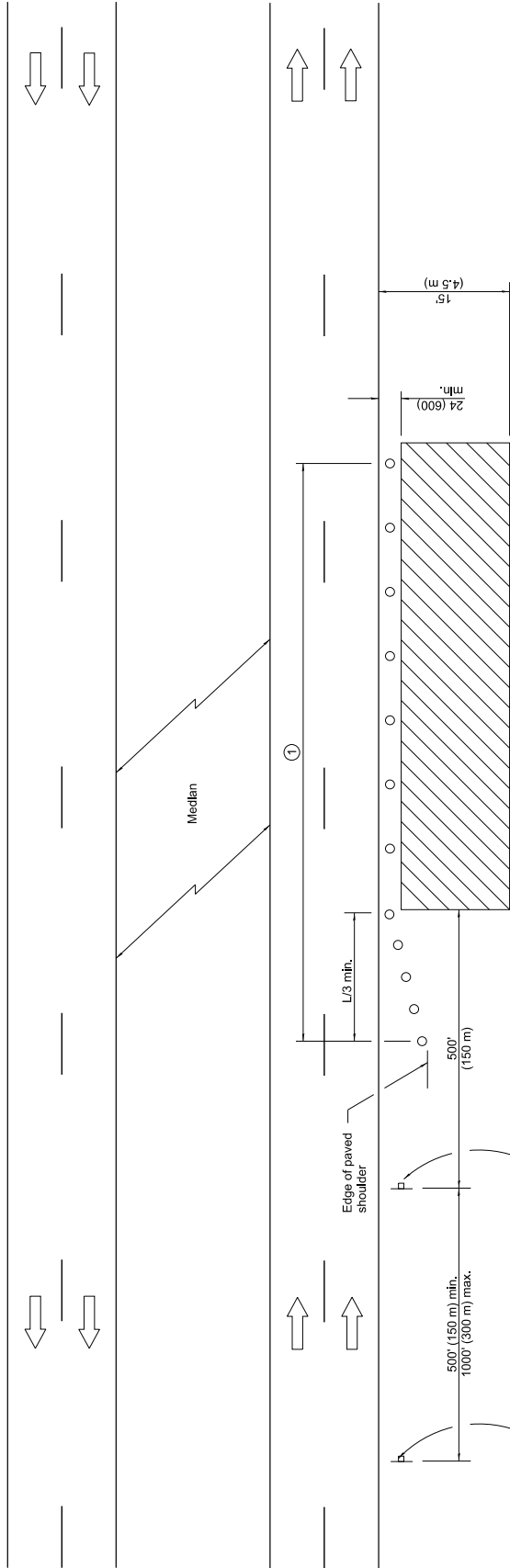
“(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.

(k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.

(l) Movable Traffic Barrier. The movable traffic barrier shall be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings. The barrier shall be capable of being moved on and off the roadway on a daily basis.”



For contract construction projects

W20-1(0)-48

For maintenance and utility projects

W21-1(0)-48

W21-1(0)-48

TYPICAL APPLICATIONS

- Utility operations
- Culvert extensions
- Side slope changes
- Guardrail installation and maintenance
- Delinquent installation
- Landscaping operations
- Shoulder repair
- Sign installation and maintenance

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

SYMBOLS

- Work area
- Sign
- Cone, drum or barricade

GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24' (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	English	$L = \frac{WS^2}{60}$	FORMULAS (Metric)
		$L = \frac{WS^2}{150}$	
40 mph (70 km/h) or less:		$L = W(S)$	$L = 0.65(W)(S)$
45 mph (80 km/h) or greater:			

W = Width of offset in feet (meters),
 S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

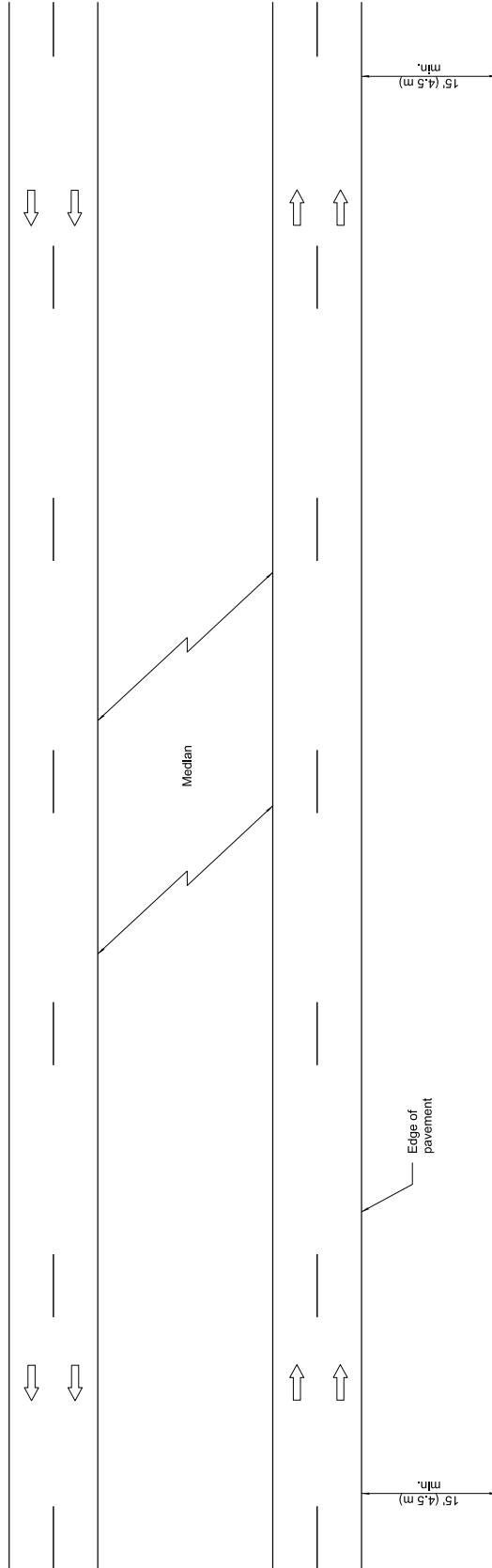
OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

DATE	REVISIONS
4-1-16	Corrected typo in title.
1-1-14	Revised workers sign number to agree with current MUTCD.

STANDARD 701101-05

Illinois Department of Transportation
 APPROVED: [Signature] 2016
 ENGINEER OF SAFETY ENGINEERING
 APPROVED: [Signature] 2016
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-87



GENERAL NOTES

This Standard is used where at all times all vehicles, equipment, workers or their activities are more than 15' (4.5 m) from the edge of pavement.

When the work operation requires that two or more work vehicles cross the 15' (4.5 m) clear zone in any one hour, traffic control shall be according to Standard 701101.

This Standard also applies to work performed in the median more than 15' (4.5 m) from either pavement.

All dimensions are in inches (millimeters) unless otherwise shown.

TYPICAL APPLICATIONS

- Landscaping work
- Utility work
- Fencing contracts

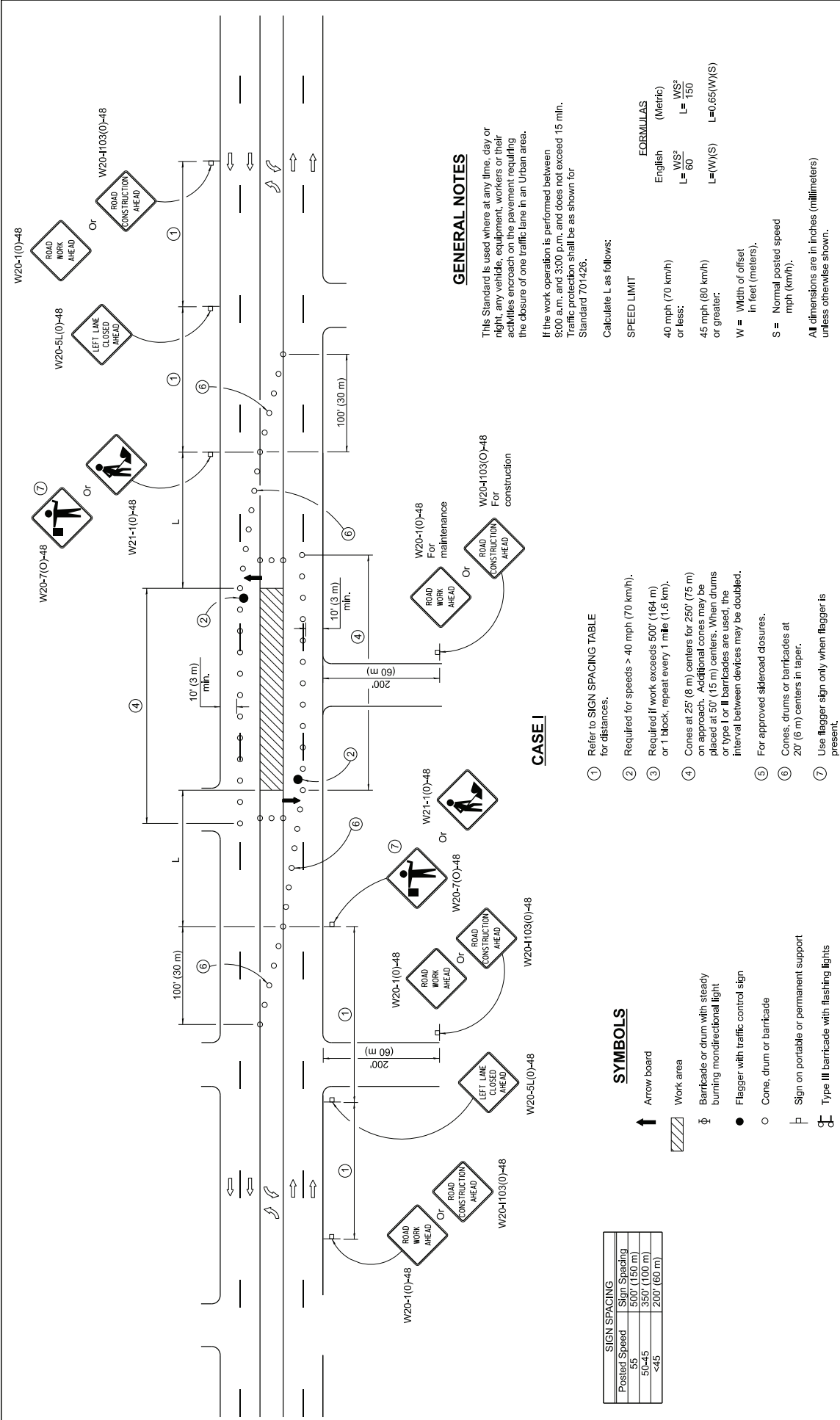
DATE	REVISIONS
1-1-05	Switched units to English (metric). Revised title.
1-1-97	Renum. Standard 2313-6.

Illinois Department of Transportation
 APPROVED *[Signature]* January 1, 2009
 ENGINEER OF OPERATIONS
 APPROVED *[Signature]* January 1, 2009
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

**OFF-RD OPERATIONS, MULTILANE,
 MORE THAN 15' (4.5 m) AWAY**

STANDARD 701106-02



W20-10-48

W20-5L(0)-48

W20-7(0)-48

W20-10-48

W20-103(0)-48

W20-10-48

W20-103(0)-48

W20-5L(0)-48

W20-103(0)-48

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an Urban area.

If the work operation is performed between 9:00 a.m. and 3:00 p.m. and does not exceed 15 mph. Traffic protection shall be as shown for Standard 701426.

Calculate L as follows:

SPEED LIMIT

40 mph (70 km/h) or less:
 $L = \frac{WS^2}{60}$
 45 mph (80 km/h) or greater:
 $L = (W)(S)$
 $L = 0.65(W)(S)$

FORMULAS

English (Metric)
 $L = \frac{WS^2}{60}$ (m)
 $L = \frac{WS^2}{150}$ (ft)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

CASE I

- 1 Refer to SIGN SPACING TABLE for distances.
- 2 Required for speeds > 40 mph (70 km/h).
- 3 Required if work exceeds 500' (164 m) or 1 block, repeat every 1 mile (1.6 km).
- 4 Cones at 25' (8 m) centers for 250' (75 m) on approach. Additional cones may be placed at 50' (15 m) centers. When drums or type II or III barricades are used, the interval between devices may be doubled.
- 5 For approved splayed closures.
- 6 Cones, drums or barricades at 20' (6 m) centers in taper.
- 7 Use flagger sign only when flagger is present.

SYMBOLS

- ↑ Arrow board
- ▨ Work area
- Barricade or drum with steady burning monidirectional light
- Flagger with traffic control sign
- Cone, drum or barricade
- ⊥ Sign on portable or permanent support
- ⊕ Type III barricade with flashing lights

Posted Speed	Sign Spacing
35	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

DATE	REVISIONS
1-1-19	Revised to allow cones at night.
1-1-18	Moved arrow boards into closed lanes for CASE I.

**URBAN LANE CLOSURE,
MULTILANE, 2W WITH
BIDIRECTIONAL LEFT TURN LANE**
(Sheet 1 of 4)

STANDARD 701602-10

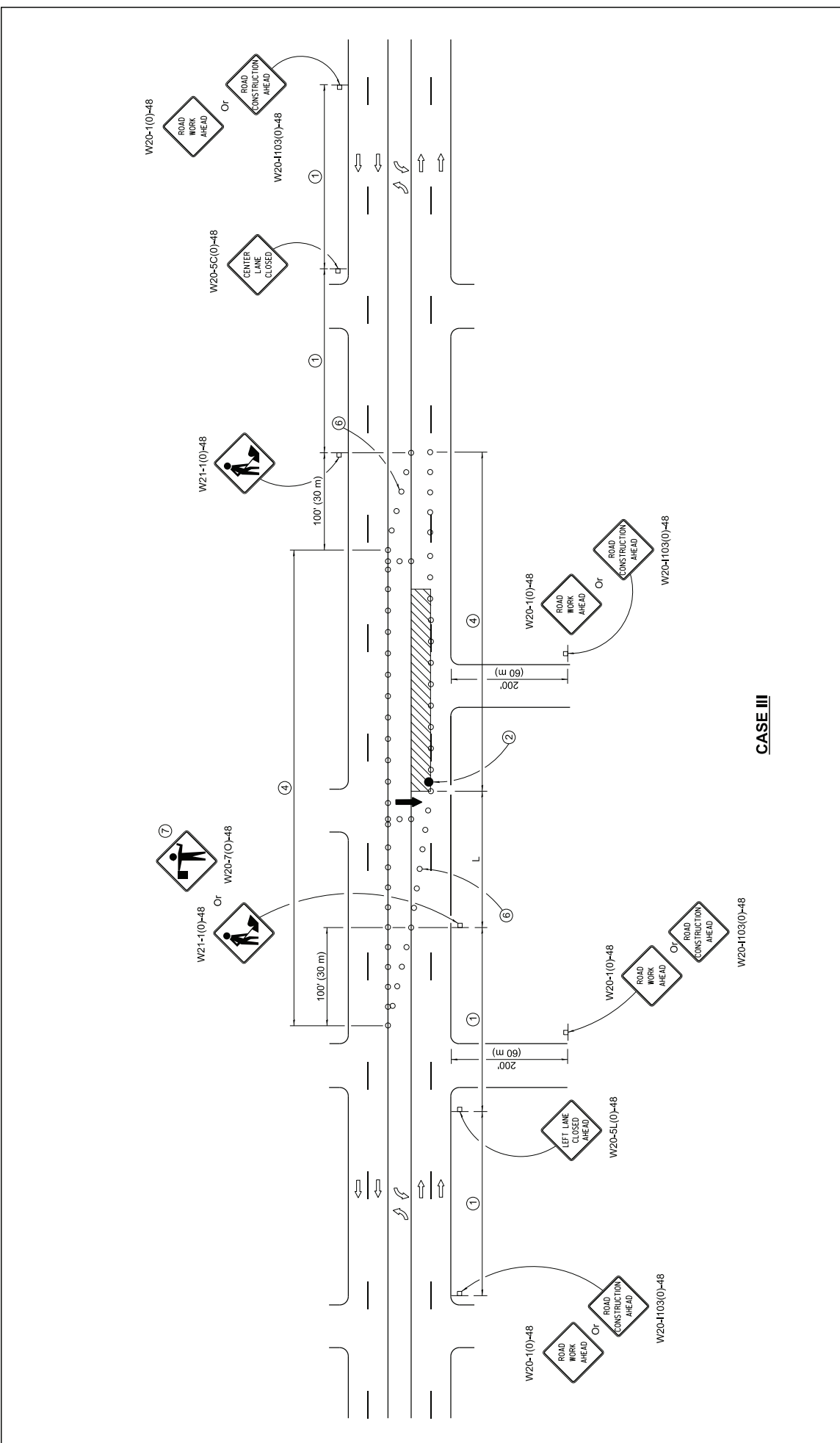
APPROVED January 1, 2019

 ENGINEER OF SAFETY PROGS. AND ENGINEERING

APPROVED January 1, 2019

 ENGINEER OF DESIGN AND ENVIRONMENT

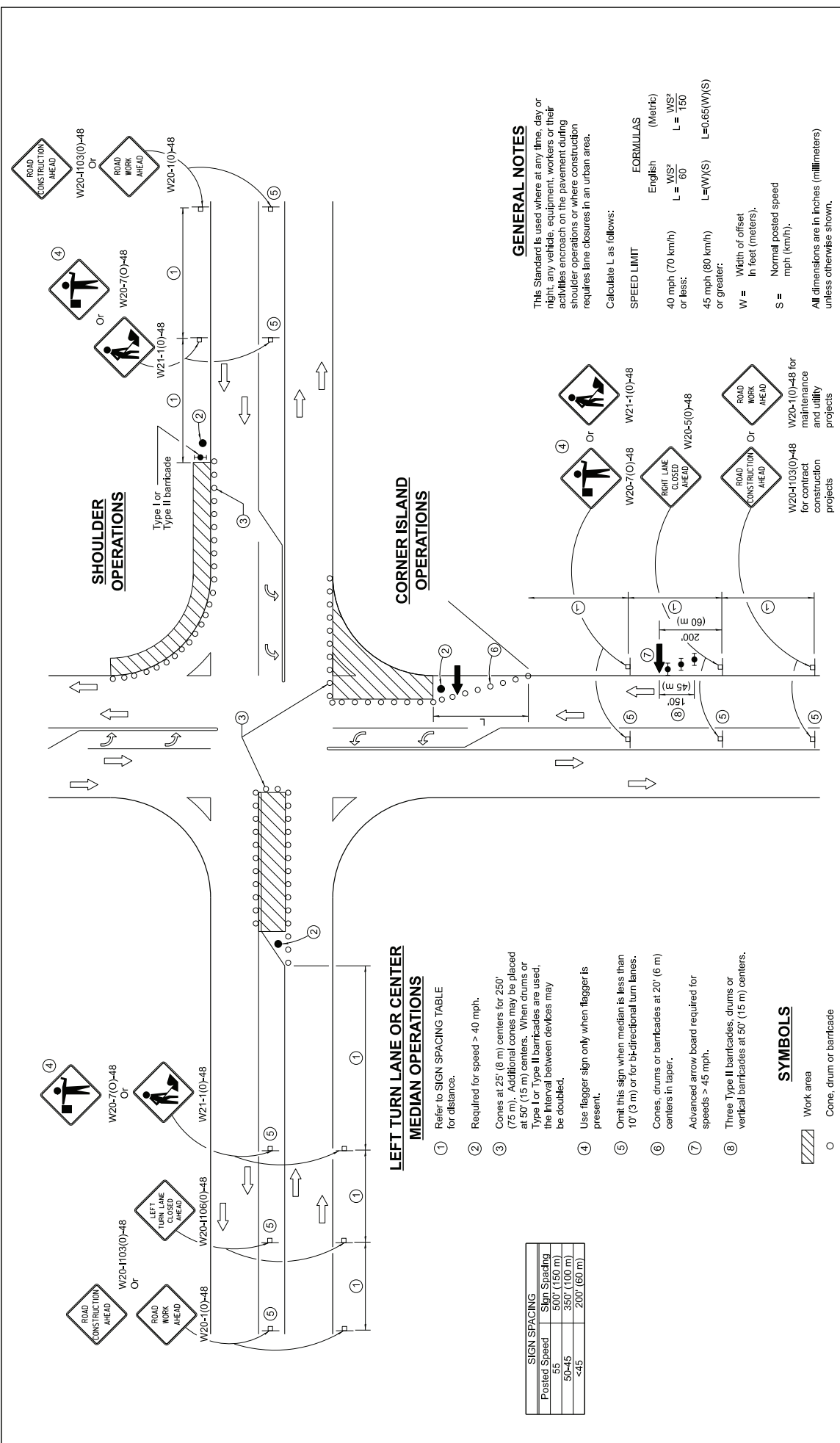
ILLINOIS Department of Transportation
 ISSUED 1-1-13



**URBAN LANE CLOSURE,
MULTILANE, 2W WITH
BIDIRECTIONAL LEFT TURN LANE**
(Sheet 3 of 4)

STANDARD 701602-10

Illinois Department of Transportation APPROVED ENGINEER OF SAFETY PROGS. AND ENGINEERING	January 1, 2019
	APPROVED ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-13	



LEFT TURN LANE OR CENTER MEDIAN OPERATIONS

- 1 Refer to SIGN SPACING TABLE for distance.
- 2 Required for speed > 40 mph.
- 3 Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
- 4 Use flagger sign only when flagger is present.
- 5 Omit this sign when median is less than 10' (3 m) or for bi-directional turn lanes.
- 6 Cones, drums or barricades at 20' (6 m) centers in taper.
- 7 Advanced arrow board required for speeds > 45 mph.
- 8 Three Type II barricades, drums or vertical barricades at 50' (15 m) centers.

SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- Work area
- Cone, drum or barricade
- Sign on portable or permanent support
- Arrow board
- Barricade or drum with flashing light
- Flagger with traffic control sign

GENERAL NOTES

This Standard is used where, at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in an urban area.

Calculate L as follows:

SPEED LIMIT

English (Metric)

40 mph (70 km/h) $L = WS^2$ or less: $L = 60$

45 mph (80 km/h) or greater: $L = (W)(S)$ or $L = 0.65(W)(S)$

FORMULAS

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

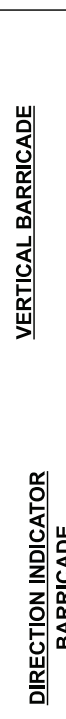
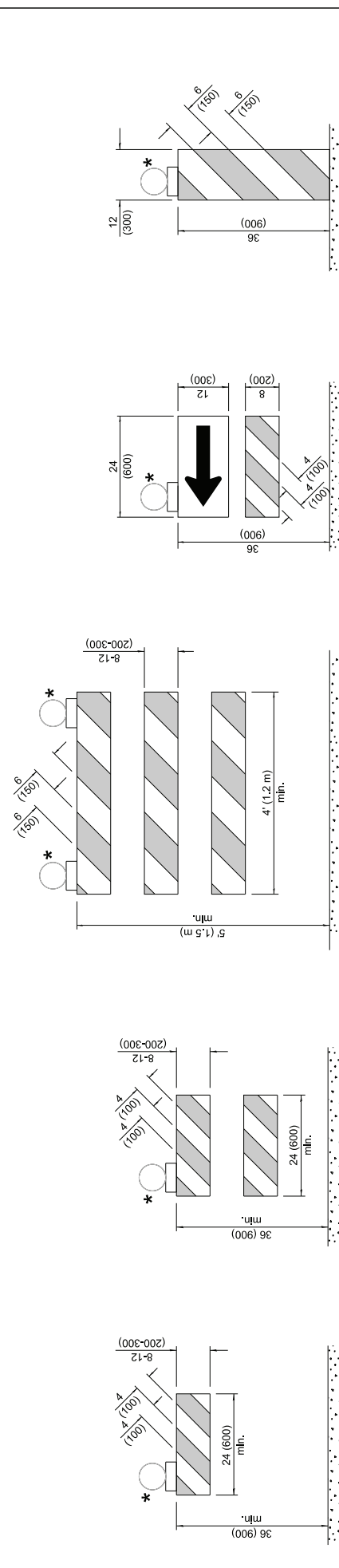
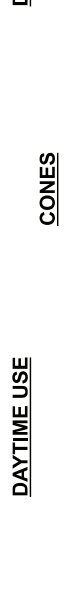
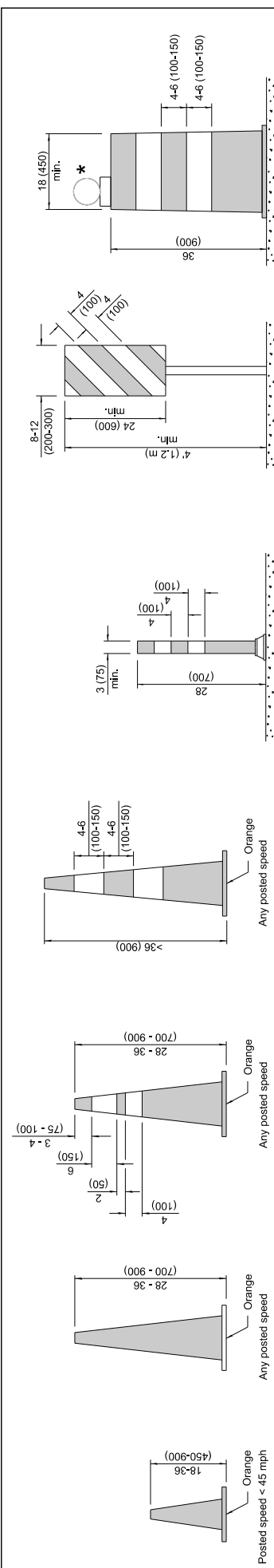
URBAN LANE CLOSURE, MULTILANE INTERSECTION	
DATE	REVISIONS
4-1-16	Corrected sign number for LEFT TURN LANE CLOSED AHEAD.
1-1-14	Added devices at arrow board upstream from taper. Revised workers sign number.

ISSUED 1-1-87

Illinois Department of Transportation

APPROVED: APRIL 1, 2016
ENGINEER OF SAFETY ENGINEERING

APPROVED: APRIL 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT



GENERAL NOTES

All heights shown shall be measured above the pavement surface.

All dimensions are in inches (millimeters) unless otherwise shown.

* Warning lights (if required)

DATE	REVISIONS
1-1-24	Revised Type III Barricade notes (sht. 3) & moved warning light on post mounted signs to top center.
1-1-19	Revised cones usage and added cones > 36" (900 mm) height.

Illinois Department of Transportation

APPROVED: [Signature] 2024
ENGINEER OF SAFETY PROJECT AND ENGINEERING

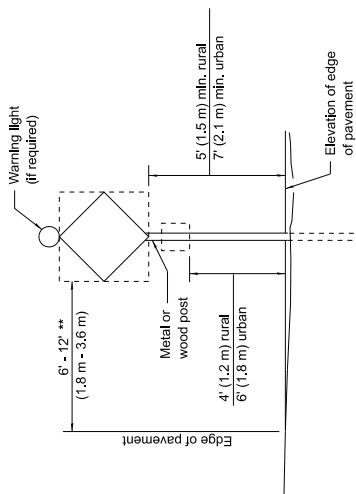
APPROVED: [Signature] 2024
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-13

TRAFFIC CONTROL DEVICES

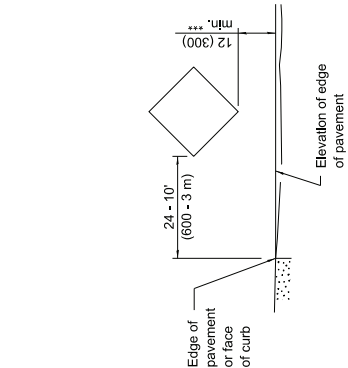
STANDARD 701901-09

(Sheet 1 of 3)



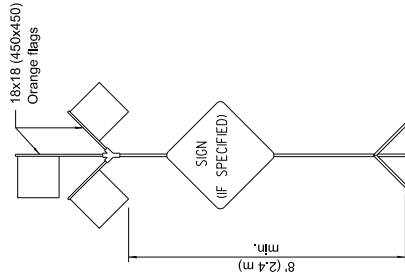
POST MOUNTED SIGNS

** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.



SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.



HIGH LEVEL WARNING DEVICE

ROAD CONSTRUCTION NEXT X MILES
G20-1104(0)-6036

END CONSTRUCTION
G20-1105(0)-6024

This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING

WORK ZONE	W2-1115(0)-3618
SPEED LIMIT	R2-1-3648
XX	R10-1108p-3618 ****
PHOTO ENFORCED	
\$XXX FINE MINIMUM	R2-1106p-3618

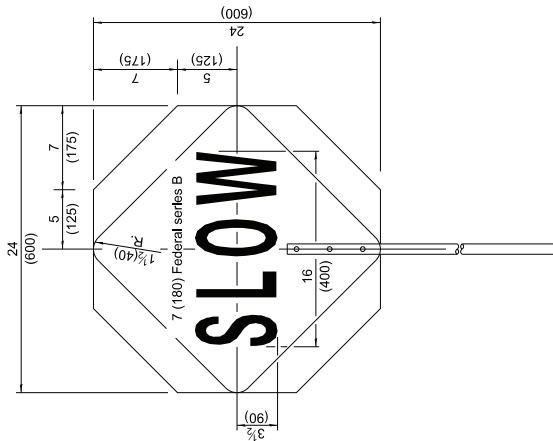
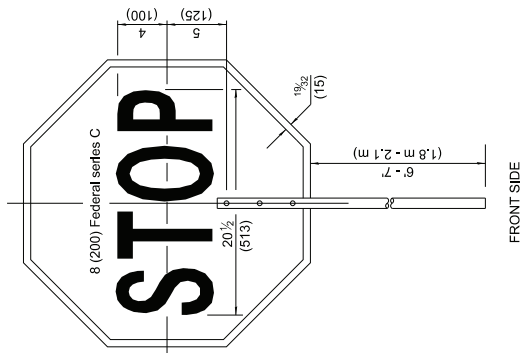
Sign assembly as shown on Standards or as allowed by District Operations.

END WORK ZONE SPEED LIMIT	G20-1103-6036
---------------------------	---------------

This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

**** R10-1108p shall only be used along roadways under the jurisdiction of the State.



FLAGGER TRAFFIC CONTROL SIGN

REVERSE SIDE

FRONT SIDE

TRAFFIC CONTROL DEVICES

STANDARD 701901-09

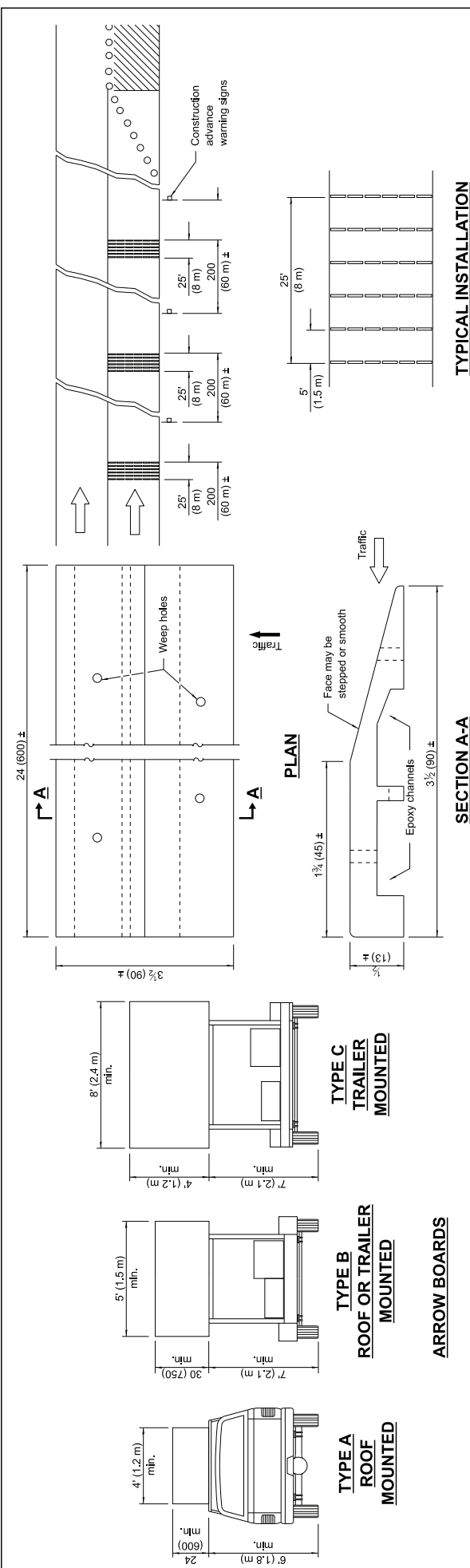
(Sheet 2 of 3)

Illinois Department of Transportation

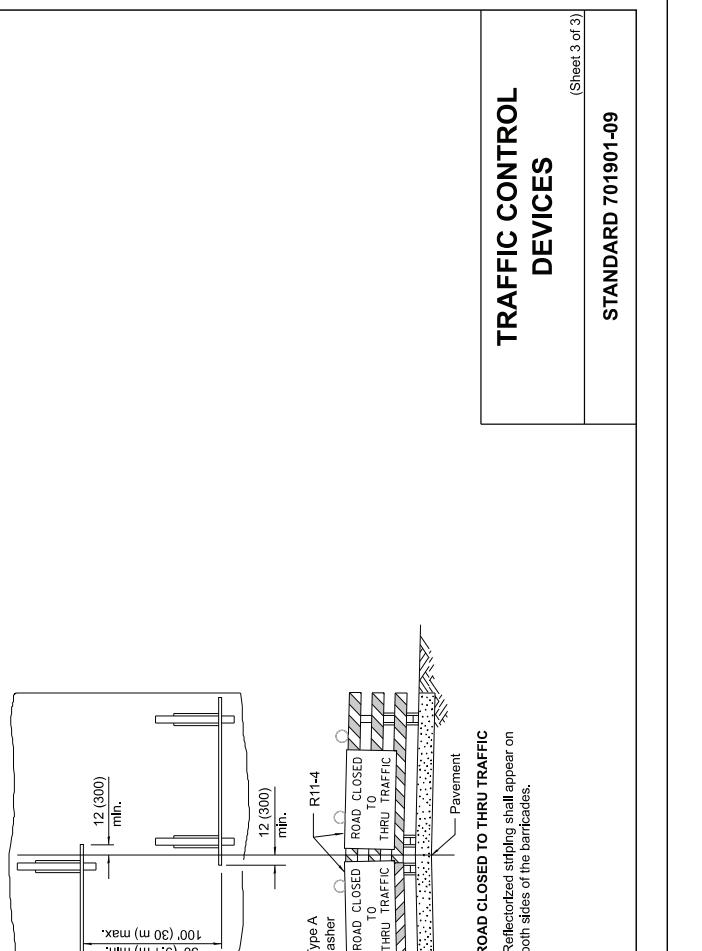
APPROVED: [Signature] 2024
 ENGINEER OF SAFETY PROJECT AND ENGINEERING

APPROVED: [Signature] 2024
 ENGINEER OF DESIGN AND ENVIRONMENT

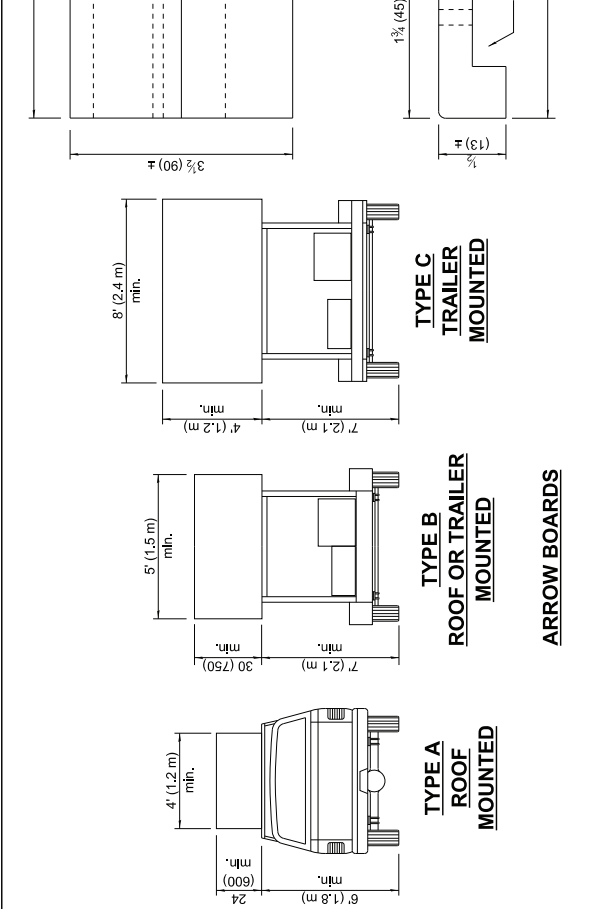
ISSUED 1-1-13



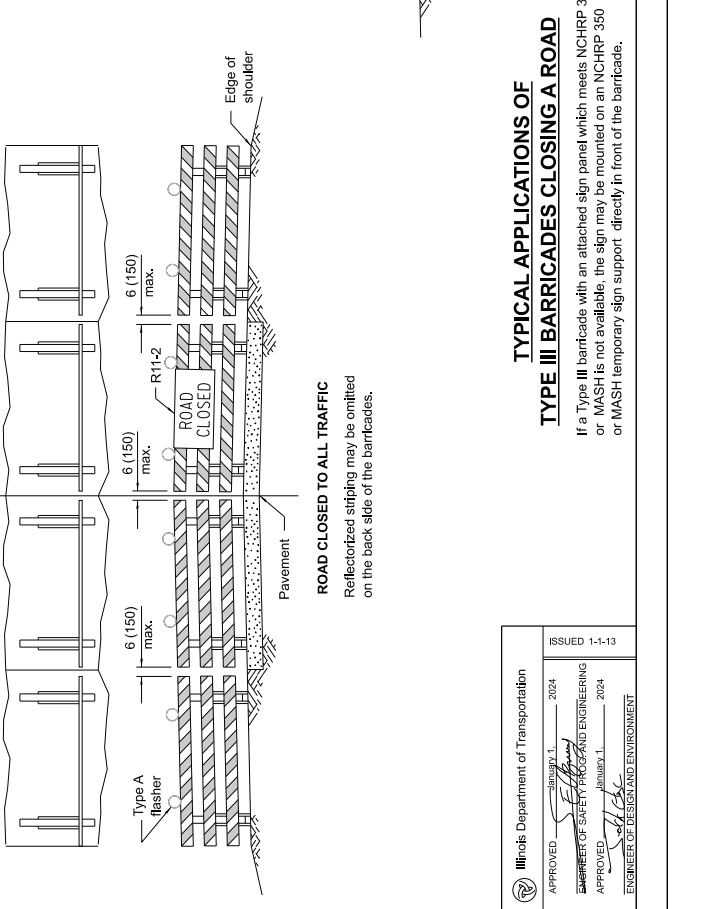
TYPICAL INSTALLATION



TEMPORARY RUMBLE STRIPS



ARROW BOARDS



TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

ROAD CLOSED TO ALL TRAFFIC
 ReflectORIZED striping may be omitted on the back side of the barricades.

ROAD CLOSED TO THRU TRAFFIC
 ReflectORIZED striping shall appear on both sides of the barricades.

ROAD CLOSED TO THRU TRAFFIC
 ReflectORIZED striping shall appear on both sides of the barricades.

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

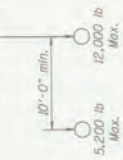
If a Type III barricade with an attached sign panel which meets NCHRP 350 or MASH is not available, the sign may be mounted on an NCHRP 350 or MASH temporary sign support directly in front of the barricade.

Benchmarks: Permanent benchmarks to be set by Engineer prior to construction.
Existing Structure: None.

DESIGN SPECIFICATIONS

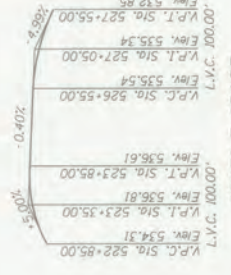
1997 Guide Specification for Design of Pedestrian Bridges
AASHTO Standard Specifications for Highway Bridges, 18th Ed.
DESIGN STRESSES
FIELD LIMITS
Concrete
f'c = 3,500 psi
fy = 60,000 psi
Structural Steel
M 270 Gr. 50 fy = 50,000 psi
ASTM A 500 Gr. B fy = 46,000 psi
Timber Deck - No. 1 Southern Pine
F = 1,250 psi
E = 29,000 psi

LOADING
Pedestrian Live Load according to Art. 1.2.1.1 of the Guide Specifications (Max. = 85 #/sq. ft.)
Main Members: 65 #/sq. ft.
Floorbeams, Stringers & Decks: 85 #/sq. ft.
Metro Maintenance Vehicle Loading
17,200 lb gross vehicle with the following axle load configuration.

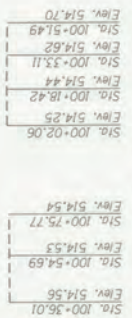


SEISMIC DATA
Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.12g
Site Coefficient (S) = 1.0

HIGHWAY CLASSIFICATION
(F.A.P. Rte. 600) - IL Rte. 159
Functional Class: Urban Principal Arterial
ADT: 17,300 (2008)
ADTT: 600 (2008)
Posted Speed: 35 m.p.h.



PROFILE GRADE
(along E. MetroBikeLink)

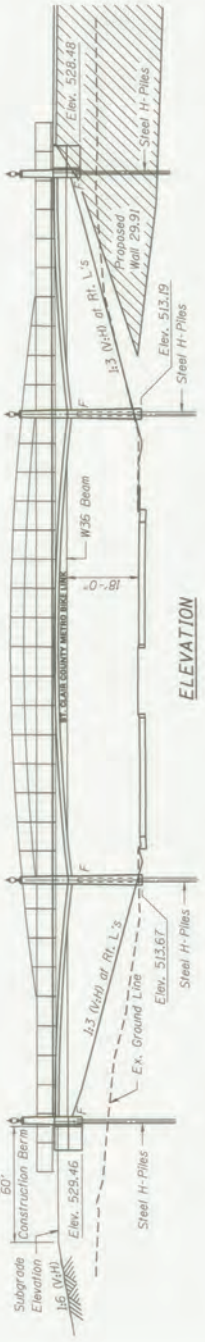


PROFILE GRADE
(Surveyed E. MetroBikeLink)

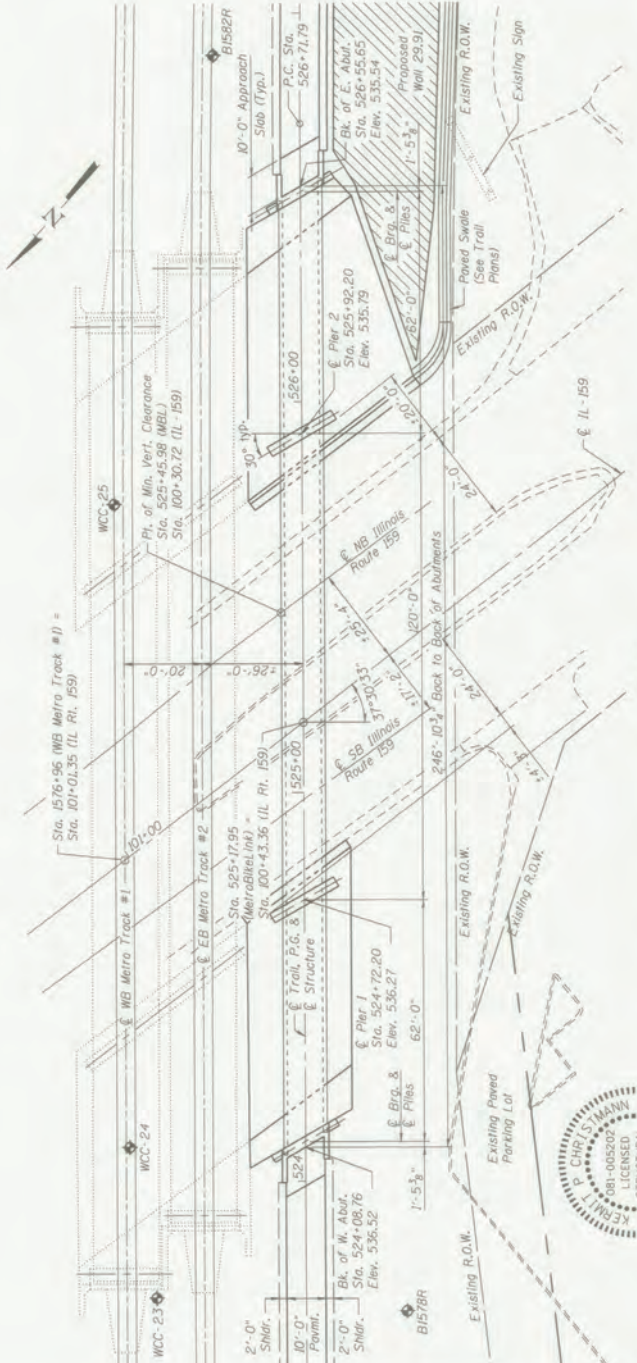
INDEX OF SHEETS

- General Plan and Elevation
- General Data
- Superstructure Details
- Framing Plan & Framing Elevation
- Structural Steel Details
- Bearing Details
- Abutment Details
- Pier Details
- Approach Slab
- Pile Details
- Architectural Details
- Soil Boring Logs

GENERAL PLAN AND ELEVATION
IL-159 (F.A.P. RTE. 600)
STA. 524+08.76 TO 526+55.65
STRUCTURE B29.85 (082-7000)



ELEVATION



PLAN



DESIGN: MJJ
CHECKED: JNS/MPC
DATE: 2/10/2010
EXP. RES. 11/30/2010

THOUVENOT, WADE & MOERCHEN, INC.
CORPORATE OFFICE
4940 Old Collinsville Road
Swansea, Illinois 62226
Tel: 618.624.4488
Fax: 618.624.6888
SWANSEA • WATERLOO • EDWARDSVILLE • CARBONDALE • ST. CHARLES



Bi-State Development Agency

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
23 SHEETS	159	96-00001-00-EG	CLAIR	51
			ST. CLAIR	51
			CONTRACT NO.	
			ILLINOIS FED. AID PROJECT	

GENERAL NOTES

Except as otherwise specified, fasteners shall be AASHTO M253 Type I, mechanically galvanized bolts. Bolts in standard size holes, unless otherwise noted. Calculated Weight of Structural Steel:

Alternative 1:
 AASHTO M270 Grade 50 = 77.870
 AASHTO M270 Grade 36 = 14.500
 ASTM A 500 Grade B = 446

Alternative 2:
 AASHTO M270 Grade 50 = 78.233
 AASHTO M270 Grade 36 = 15.015
 ASTM A 500 Grade B = 446

Hot rolled structural steel W and WT shapes and splice plates shall be AASHTO M270 Grade 50.
 Hot rolled C shapes, angles, plates and bars shall be AASHTO M270 Grade 36.
 HSS shall be ASTM A 500, Grade B
 No field welding is permitted except as specified in the contract documents.
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60.
 See special provisions.

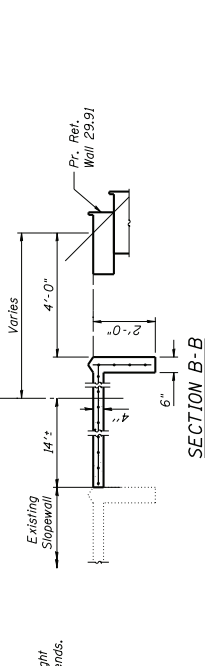
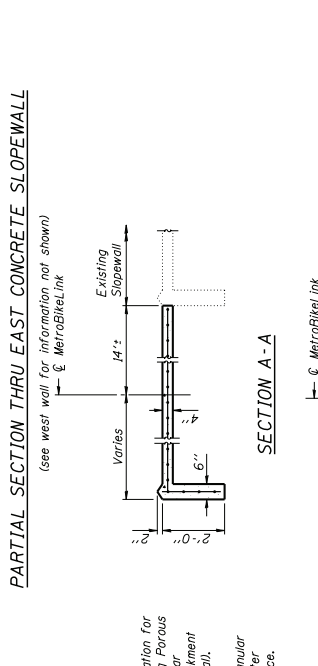
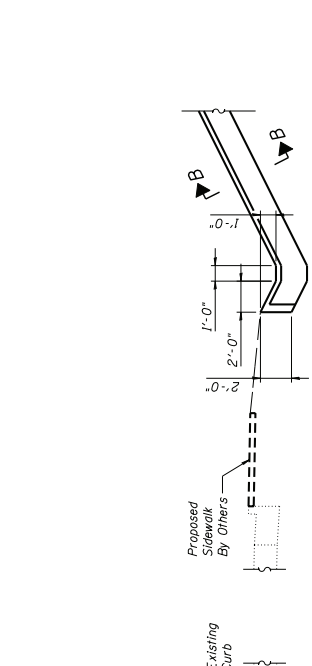
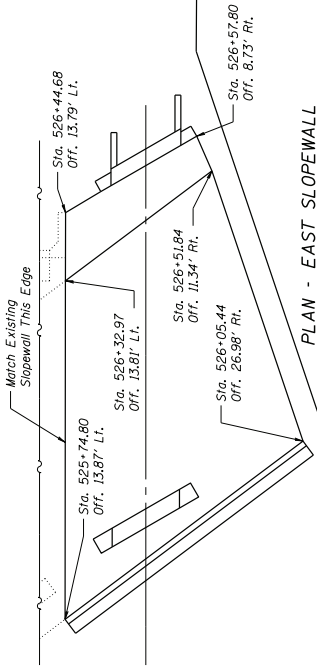
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft). Adjustment shall be made either by grinding the surface or by shiming the bearings.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel. The paint may be shop or field applied. The contractor shall be responsible for the application of the paint coat. The paint shall be Blue Hammer Color Standard 695 35052. See Special Provision for "Cleaning and Painting New Metal Structures (Special)".

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The contractor shall select Alternative 1 or Alternative 2 for structural steel fabrication and erection. The contractor shall submit one price for Furnishing and Erecting Structural Steel, L, Sum regardless of the alternative chosen, and the contractor is not required to indicate the chosen alternative at the time of bidding.

Alternative 1 - Each span is assembled in the shop, delivered to the site and set as a two girder unit.
 Alternative 2 - Same as Alternative 1 except each span may be assembled at the site.
 Piles shall be driven prior to construction of RSS at east abutment.



SECTION THRU INTEGRAL ABUTMENT
 (Approx. dim. @ R.L.'s)
 Geotechnical fabric or French drains shall be incidental to Porous Granular Embankment.

Note:
 All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The wingwalls shall be constructed in accordance with the Specifications and Highway Standard 60100.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.	-	32	32
Structure Excavation	Cu. Yd.	-	81	81
Concrete Structures	Cu. Yd.	-	107.8	107.8
Concrete Encasement	Cu. Yd.	-	4.2	4.2
Treated Timber	F.B.M.	9340	-	9340
Hardware	Pound	230	-	230
Furnishing and Erecting Structural Steel	L, Sum	1	-	1
Reinforcement Bars	Pound	-	7560	7560
Slope Wall 4 Inch	Sq. Yd.	-	468	468
Furnishing Steel Piles HP 10x42	Foot	-	240	240
Furnishing Steel Piles HP 12x43	Foot	-	528	528
Living Piles	Foot	-	768	768
Pipe Shells 1"	Each	-	12	12
Manhole Bell 1"	Each	-	36	36
Pipe Underdrains for Structures 4"	Foot	-	540	540
Bipole Rolling (Special - B29.85)	Foot	-	1684	1684
Form Liner Textured Surface (Special)	Sq. Ft.	-	1684	1684
Furnishing and Erecting Precast Concrete Panels	L, Sum	1	-	1
Sign Panels (Special) Type 1	L, Sum	1	-	1
Sign Panels (Special) Type 2	L, Sum	1	-	1
Staining Concrete	L, Sum	-	-	-

GENERAL DATA

STRUCTURE B29.85 (082-7000)	SECTION	COUNTY	TOTAL SHEETS
96-00001-00-EC	ST. CLAIR	218	52
MicroBabelink - Swansea Section	CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

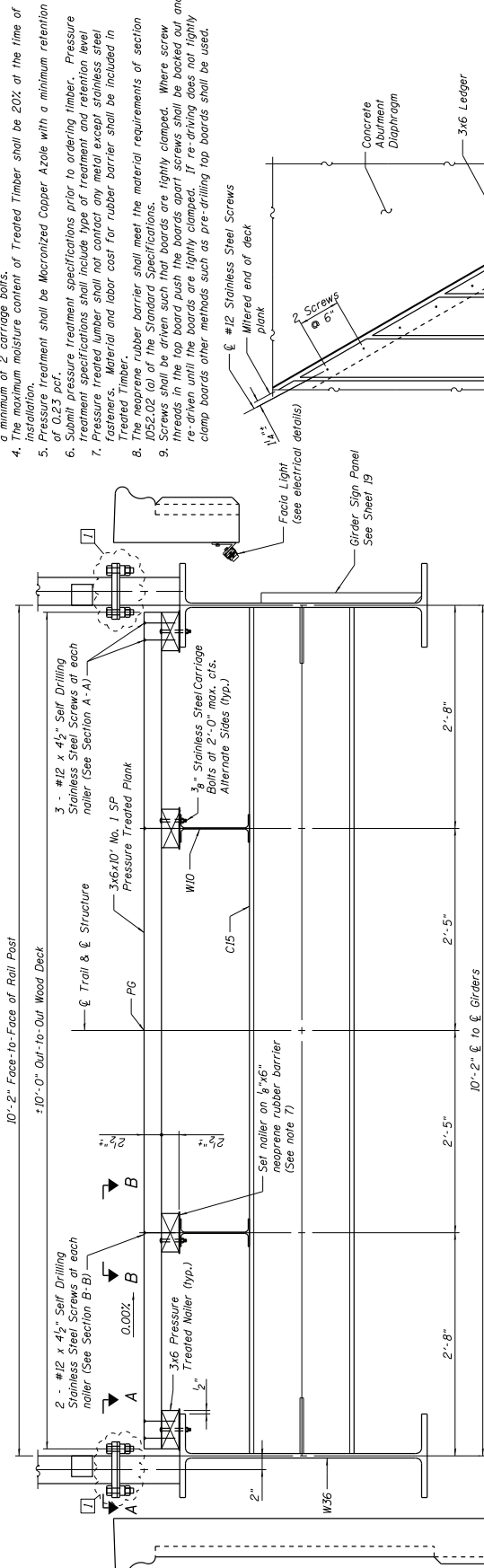


THOUVENOT, WADE & MOERCHEN, INC.
 SWANSEA - WARRELOO - EDWARDSVILLE - CARBONDALE - ST. CHARLES

CORPORATE OFFICE
 4940 Old Cahokia Road
 Swansea, Illinois 62226
 Tel: 618.682.4488
 Fax: 618.684.8888

DESIGNED BY: MU
 CHECKED BY: KFC/JMS
 DRAWN BY: MU
 CHECKED BY: KPC
 DATE: 2/10/2010

- NOTES:**
1. Stainless steel carriage bolts and screws shall be Type 304 Stainless Steel.
 2. Treated Timber construction shall be in accordance with Section 507 of the Standard Specification except as modified by these plans.
 3. Nailers shall be installed in lengths such that each piece is fastened with a minimum of 2 carriage bolts.
 4. The maximum moisture content of Treated Timber shall be 20% at the time of installation.
 5. Pressure treatment shall be Macronized Copper Azole with a minimum retention of 0.23 pcf.
 6. Submit pressure treatment specifications prior to ordering timber. Pressure treatment specifications shall include type of treatment and retention level.
 7. Fasteners shall be stainless steel or hot-dipped galvanized steel. Fastener material and labor cost for rubber barrier shall be included in Treated Timber.
 8. The neoprene rubber barrier shall meet the material requirements of section 1052.02 (a) of the Standard Specifications.
 9. Screws shall be driven such that boards are tightly clamped. Where screw threads in the top board push the boards apart screws shall be backed out and re-driven until the boards are tightly clamped. If re-driving does not tightly clamp boards other methods such as pre-drilling top boards shall be used.

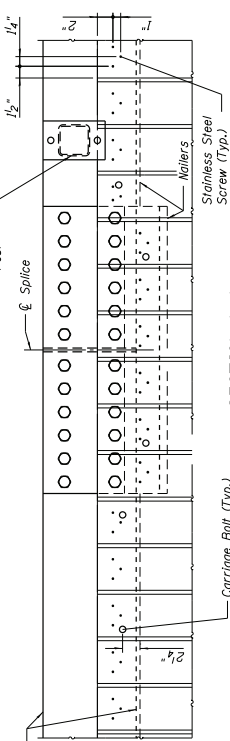


SECTION THRU SPLICE
 * Plane nailers at splice to a thickness of $\pm 1/8$ "

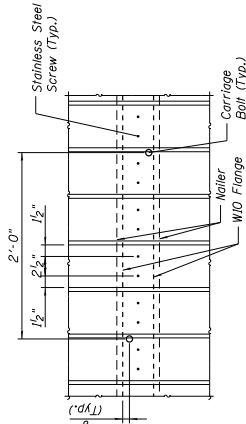
SECTION THRU DECK
 (Looking East)

PANEL NEAR PIER

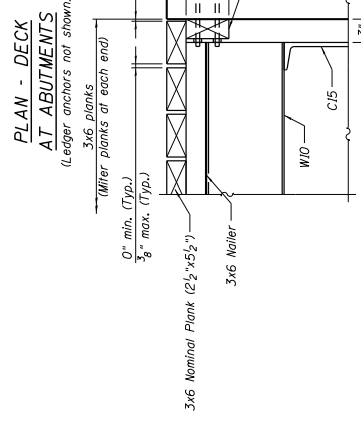
PANEL NEAR MIDSPAN



SECTION A-A
 Fastener Pattern at W36 Girders

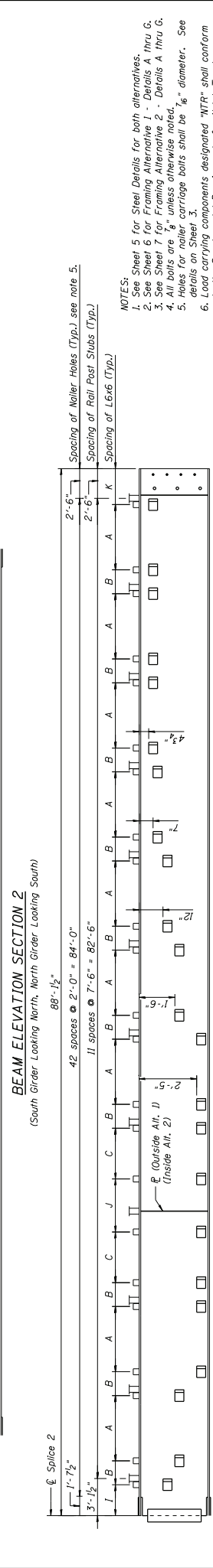
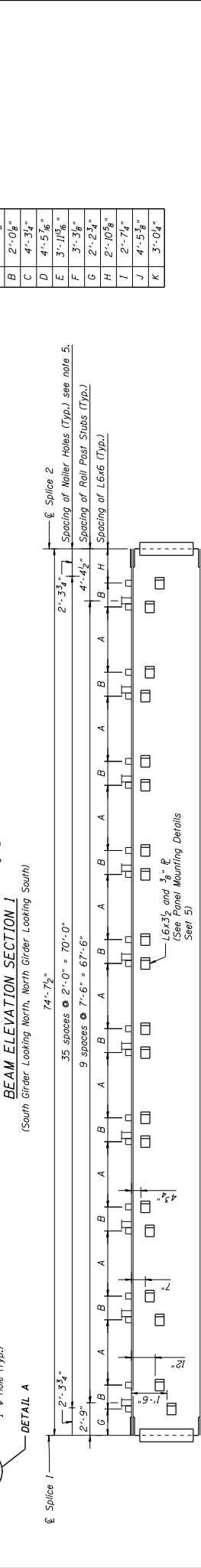
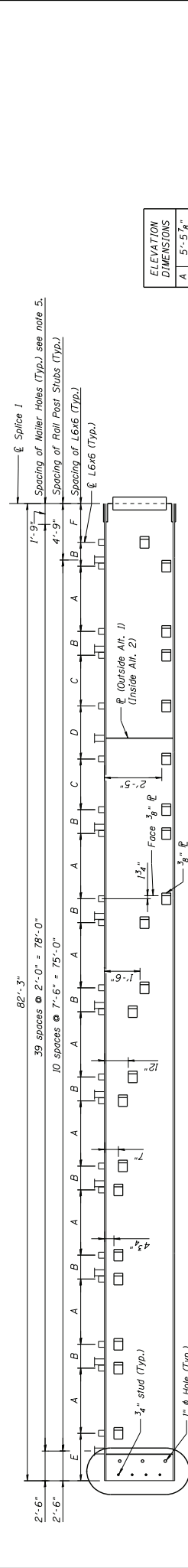
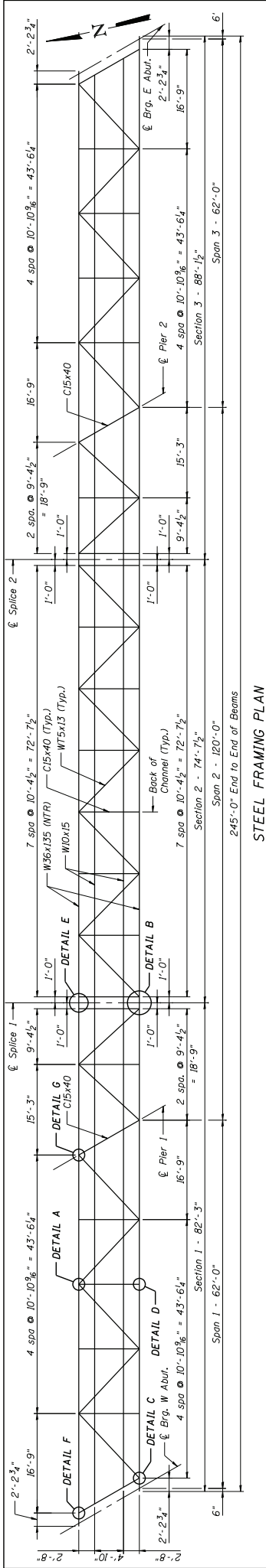


SECTION B-B
 Fastener Pattern at W10 Stringers



PLAN - DECK AT ABUTMENTS
 (Ledger anchors not shown)

DESIGNED BY	MJ	CHECKED BY	KPC	DRAWN BY	MJ	CHECKED BY	KPC	DATE	2/10/2010	REVISED	1/7/11	MJ
<p>THOUVENOT, WADE & MÖRCHEN, INC. SWANSEA - VAN HORN - EDWARDSVILLE - CARBONDALE - ST. CHARLES CORPORATE OFFICE 4940 Old Collinsville Road Swansea, Illinois 62226 Tel: 618.652.4488 Fax: 618.652.4088</p>												
<p>TWM EXCEPTIONAL SERVICE. NOTHING LESS.</p>												
<p>SciD St. Clair County Transit District</p>												
<p>Metro</p>												
<p>Bi-State Development Agency</p>												
SHEET NO.	3	F.A. RTE.	96-00001-00-EC	SECTION	ST. CLAIR	COUNTY	218	TOTAL SHEETS NO.	53			
SHEETS	23	SECTION	Metrolink - Swansea Section	CONTRACT NO.								
<p>C-C SUPERSTRUCTURE STRUCTURE B29.85 (082-7000)</p>												
<p>FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT</p>												

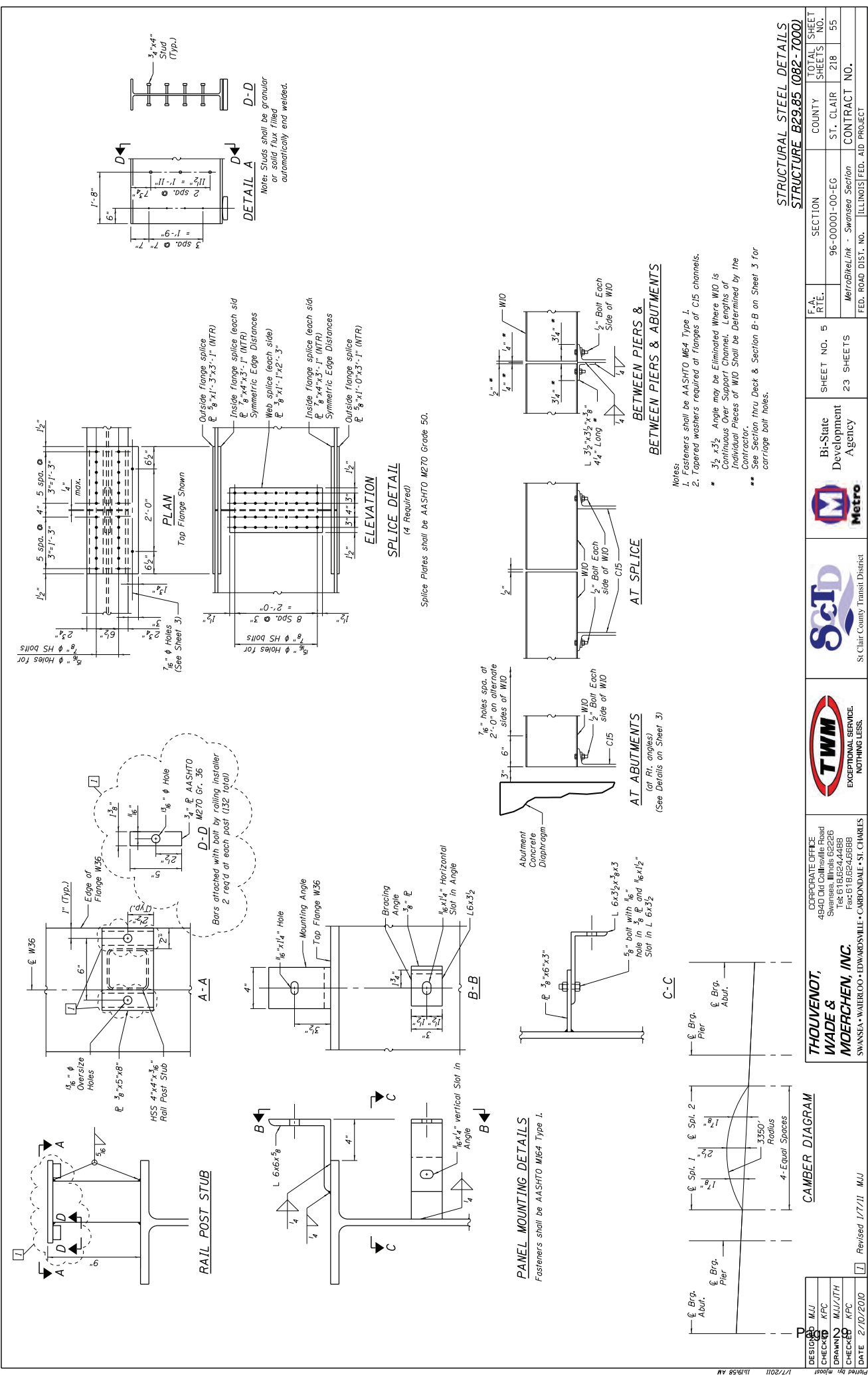


ELEVATION DIMENSIONS	VALUES
A	5'-5 7/8"
B	2'-0 3/8"
C	4'-3 1/4"
D	4'-5 7/8"
E	3'-1 1/8"
F	3'-3 3/8"
G	2'-2 3/4"
H	2'-10 3/8"
I	2'-7 1/4"
J	4'-5 3/8"
K	3'-0 1/4"

- NOTES:**
- See Sheet 5 for Steel Details for both alternatives.
 - See Sheet 6 for Framing Alternative 1 - Details A thru G.
 - See Sheet 7 for Framing Alternative 2 - Details A thru G.
 - All bolts are 1/2" unless otherwise noted.
 - Holes for nailer carriage bolts shall be 1/8" diameter. See details on Sheet 3.
 - Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

FRAMING PLAN
STRUCTURE B29.85 (082-7000)

DESIGNER	MU	CHECKED	DJH	DRAWN	MLL/JTH	DATE	2/10/2010
SECTION	96-00001-00-EC	F.A. RTE.	4	SHEET NO.	23	TOTAL SHEETS	54
COUNTY	ST. CLAIR	CONTRACT NO.		CONTRACT NO.			
Metro		Bi-State Development Agency		St. Clair County Transit District		SCTD	
TWM		EXCEPTIONAL SERVICE		NORTHWEST		THOUVENOT, WADE & MOERCHEN, INC.	
CORPORATE OFFICE		4940 Old Collingdale Road		Swansea, Illinois 62226		Tel: 618.624.4488 Fax: 618.624.6555	
SWANSEA - WARELOO - EDWARDSVILLE - CARBONDALE - ST. CHARLES							



RAIL POST STUB

Notes: Studs shall be circular or solid bar filled automatically end welded.

DETAIL A

DETAIL B

DETAIL C

DETAIL D

PLAN

ELEVATION

SPLICE DETAIL

AT ABUTMENTS

AT SPlice

BETWEEN PIERS & ABUTMENTS

CAMBER DIAGRAM

Panel Mounting Details

Notes: Fasteners shall be AASHTO M64 Type 1.

Notes: Splice Plates shall be AASHTO M270 Grade 50.

Notes: Studs shall be circular or solid bar filled automatically end welded.

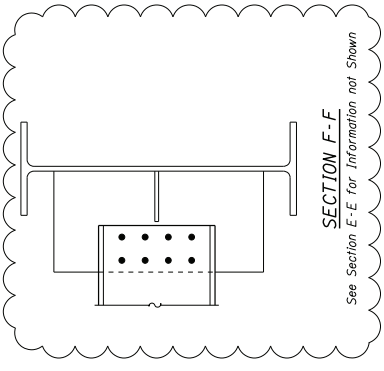
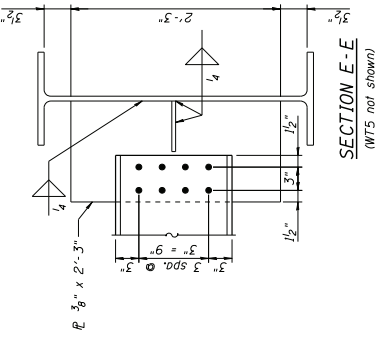
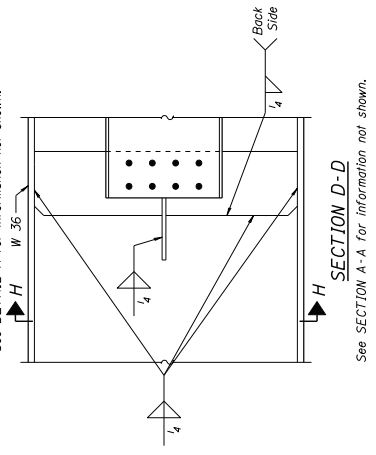
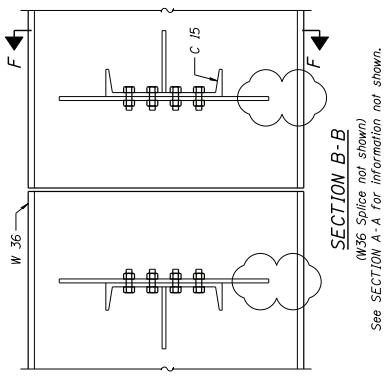
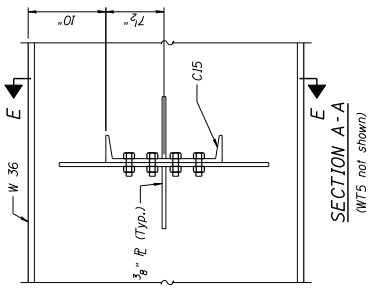
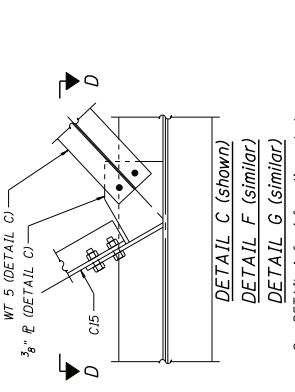
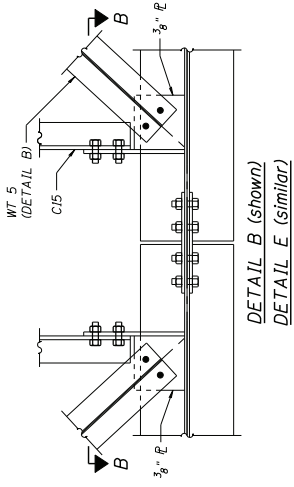
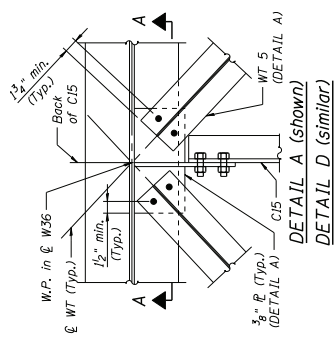
Notes: Fasteners shall be AASHTO M64 Type 1.

Notes: Tapered washers required at flanges of C15 channels.

Notes: 3/2 x 3/2 Angle may be Eliminated Where W10 is Continuous Over Support Channel. Lengths of Individual Pieces of W10 Shall be Determined by the Contractor.

Notes: See Section thru Deck & Section B-B on Sheet 3 for carriage bolt holes.

DESIGNED BY	MU	TOTAL SHEETS	218
CHECKED BY	KPC	COUNTY	ST. CLAIR
DRAWN BY	MU/JTH	SECTION	96-00001-00-EC
CHECKED BY	KPC	F.A. RTE.	Metra/Break/Ink - Swinsea Section
DATE	2/10/2010	SHEET NO.	5
		CONTRACT NO.	ILLINOIS FED. AID PROJECT
		SHEETS	23
		Bi-State Development Agency	
		St. Clair County Transit District	
		SCD	
		Metro	
		THOUVENOT, WADE & MÖRCHEN, INC.	
		CORPORATE OFFICE	
		4940 Old Collinsville Road	
		Swinsea, Illinois 62226	
		Tel: 618-652-4488	
		Fax: 618-652-4088	
		SWANSEA - WATERLOO - EDWARDSVILLE - CARBONDALE - ST. CHARLES	
		EXCEPTIONAL SERVICE. NOTHING LESS.	
		Revised 1/7/11 MUJ	
		Section Bigger 28x5x25x5-05-51-Structural Steel Details - Rev. 2010-07-09	



DESIGNED BY: MU
 CHECKED BY: DJH
 DRAWING NO.: MU
 CHECKED BY: KPC
 DATE: 2/10/2010

THOUVENOT, WADE & MOERCHEN, INC.
 SWANSEA - WAVERLOO - EDWARDSVILLE - CARBONDALE - ST. CHARLES
 CORPORATE OFFICE
 4840 Old Collinsville Road
 Swansea, Illinois 62226
 Tel: 618.624.4488
 Fax: 618.624.6566

TWM
 EXCEPTIONAL SERVICE
 NOTHING LESS.

SCD
 St. Clair County Transit District

Metro

Bi-State Development Agency

F.A. R.T.E.	SECTION	COUNTY	TOTAL SHEETS
96-00001-00-EC	96-00001-00-EC	ST. CLAIR	218
MetroBrel/Ink - Swansea Section			57
STRUCTURE B29.85 (082-7000)			CONTRACT NO.
ALTERNATIVE 2			ILLINOIS FED. AID PROJECT
STRUCTURE B29.85 (082-7000)			

Note: Fasteners in C15 members shall be AASHTO M64 Type 1.

Sheet No. 7 of 23

SECTION 96-00001-00-EC

ST. CLAIR COUNTY

ILLINOIS FED. AID PROJECT

CONTRACT NO.

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

SECTION

COUNTY

TOTAL SHEETS

218

57

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STRUCTURE B29.85 (082-7000)

ALTERNATIVE 2

STRUCTURAL STEEL DETAILS

SWANSEA SECTION

96-00001-00-EC

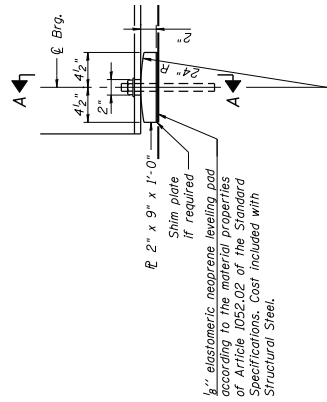
SECTION

COUNTY

TOTAL SHEETS

218

57



1/2" elastomeric neoprene leveling pad according to the material properties of Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

Shim plate if required

2" x 9" x 1'-0"

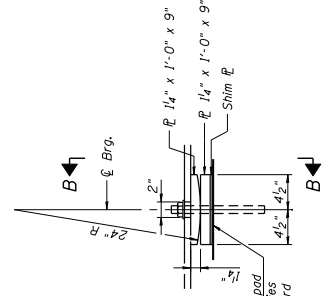
4 1/2" 2" 1 1/8" 1" 3" 3"

1" x 12" anchor bolts (ASTM F1554 Grade 36) with 2 1/4" x 2 1/4" x 3/8" x 3/8" E washer under nut.

1 1/8" x 2" slotted hole in flange.

1/2" holes in bearing plate.

ELEVATION
SECTION A - A
FIXED BEARING AT ABUTMENT



1/2" elastomeric neoprene leveling pad according to the material properties of Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

Shim

1 1/4" x 1'-0" x 1'-0"

4 1/2" 2" 1 1/8" 1" 3" 3"

1" x 12" anchor bolts (ASTM F1554 Grade 36) with 2 1/4" x 2 1/4" x 3/8" x 3/8" E washer under nut.

1 1/8" x 2" slotted hole in flange.

1/2" holes in bearing plate.

ELEVATION
SECTION B - B
FIXED BEARING AT PIER

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an equivalent approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Two 3/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolt 1"	Each	16

BEARING DETAILS
STRUCTURE B29.85 (082-7000)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
	96-00001-00-EC <td>ST. CLAIR</td> <td>218</td>	ST. CLAIR	218
	Metrolink - Swansea Section		58
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	CONTRACT NO.

SHEET NO. 8
23 SHEETS

Bi-State Development Agency

Metro

St. Clair County Transit District

SCD

TWM
EXCEPTIONAL SERVICE
NOTHING LESS.

THOUVENOT, WADE & MOERCHEN, INC.
SWANSEA - WARRELOO - EDWARDSVILLE - CARBONDALE - ST. CHARLES

CORPORATE OFFICE
4940 Old Collinsville Road
Swansea, Illinois 62226
Tel: 618.624.4488
Fax: 618.624.6556

DESIGNED BY: MU
CHECKED BY: DJH
DRAWN BY: MU
CHECKED BY: KPC
DATE: 2/10/2010

BILL OF MATERIAL (2 ABUT.)

Bar	No.	Size	Length	Shape
h	48	#5	8'-3"	—
h ₁	16	#5	8'-6"	—
m	14	#5	18'-8"	—
m ₁	2	#5	13'-6"	—
m ₂	6	#5	10'-8"	—
m ₃	26	#5	4'-6"	—
p	14	#6	18'-8"	—
p ₁	6	#6	13'-6"	—
p ₂	4	#6	4'-6"	—
s	8	#3	3'-0"	—
s ₁	26	#4	11'-5"	—
s ₂	16	#4	10'-5"	—
s ₃	4	#4	10'-11"	—
s ₄	22	#4	4'-4"	—
v	16	#5	3'-8"	—
v ₁	52	#5	4'-4"	—
v ₂	48	#5	6'-8"	—
v ₃	32	#5	6'-8"	—
Structure Excavation Cu. Yd.				30
Concrete Structures Cu. Yd.				32.4
Concrete Encasement Cu. Yd.				1.4
Reinforcement Bars Pounds				3,000
Furnishing - Piles, Foot				240
HP 10x42 Driving Piles Foot				240
Pile Shoes Each				4

**ABUTMENT PILE CAP
STRUCTURE B29.85 (082-7000)**

PILE DATA

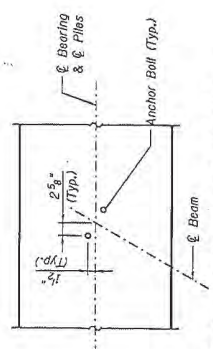
Type: HP 10x42 w/ pile shoes
 Nominal Required Bearing: 335 Kips
 Allowable Resistance Available: 112 Kips
 Est. Length: 82 ft. - w/ Abutment
 79 ft. - C. Abutment

ORDERED 2-30' WITH SHOES
 AND 2-35' WITHOUT.
 ORDERED 2-30' WITH SHOES
 AND 2-30' WITHOUT.

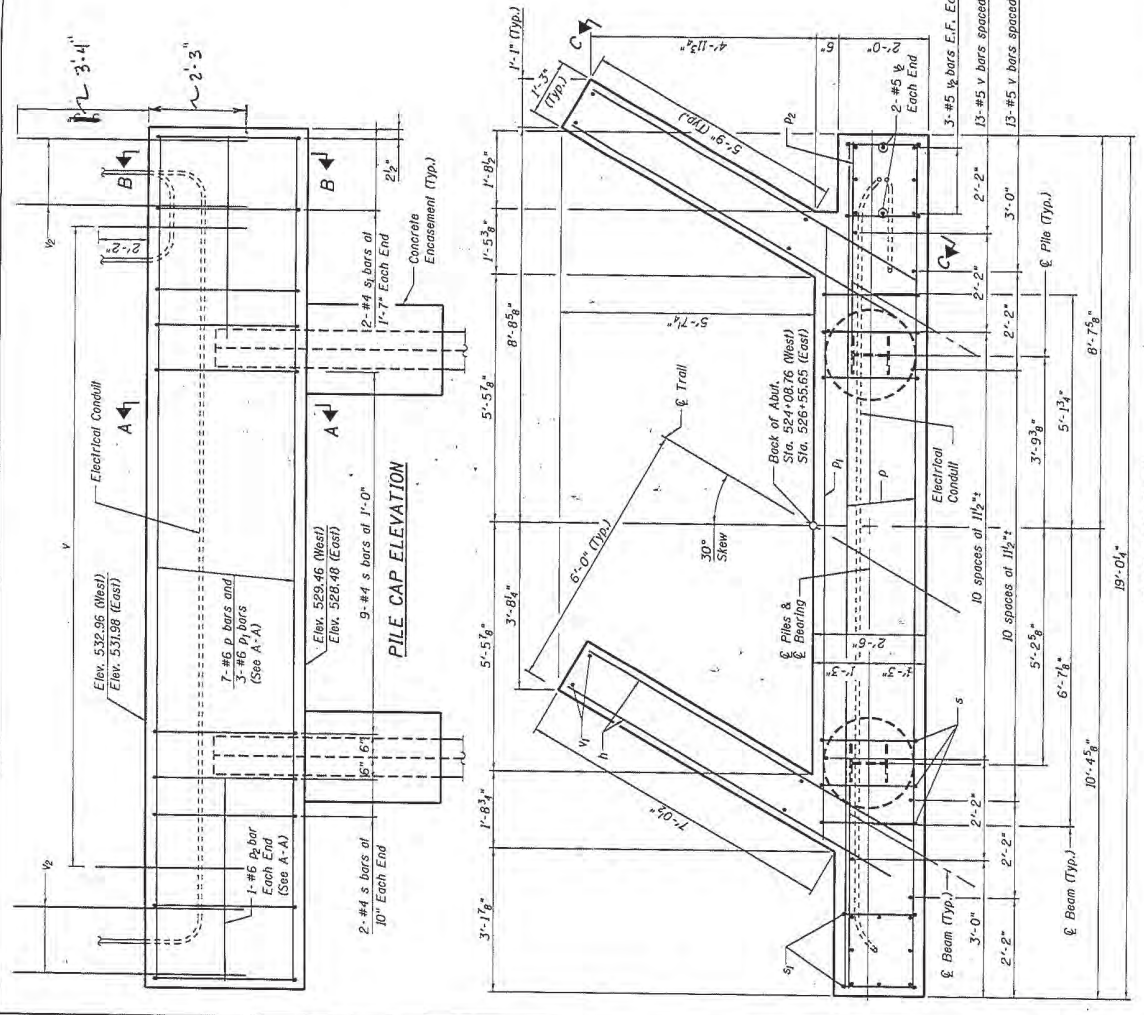
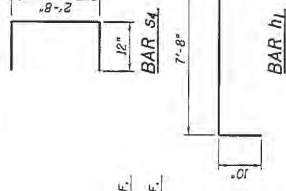
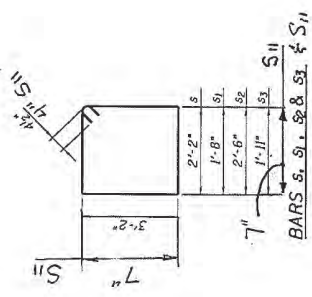
NOTES:
 1. See Sheet 10 for Sections A-A thru C-C.
 2. See Sheet 13 for Pile Details.
 3. Coordinate Conduit location with Electrical Details.

**ABUTMENT PILE CAP
STRUCTURE B29.85 (082-7000)**

SECTION	COUNTY	TOTAL SHEETS
96-00001-00-EG	ST. CLAIR	218
Metro/Link - Swansea Section	CONTRACT NO.	59
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



DETAIL - ANCHOR BOLT LOCATIONS



PILE CAP PLAN

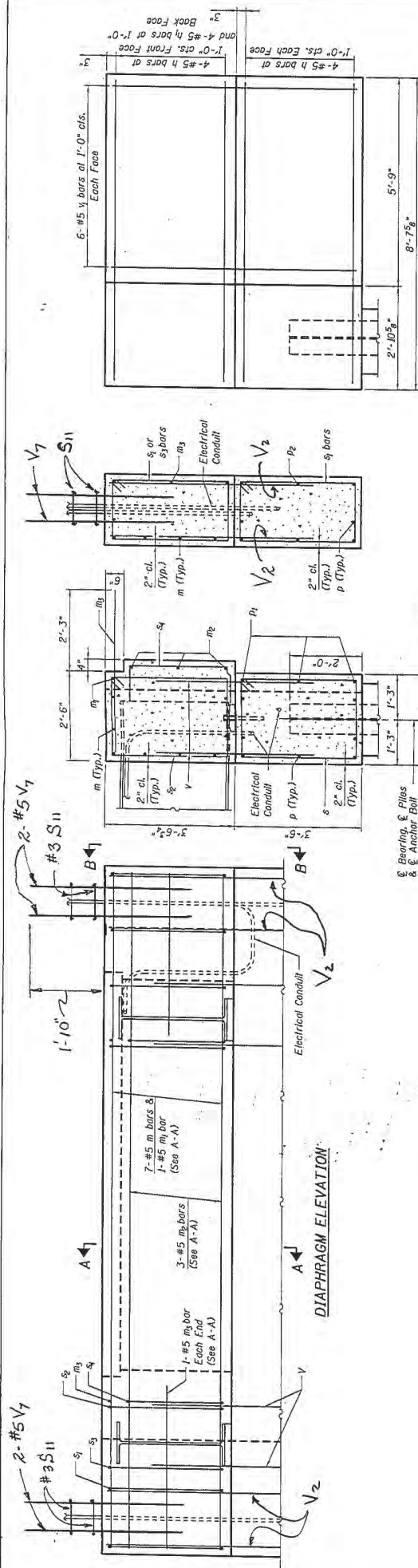


THOUVENOT, WADE & MOERCHEN, INC.
 CORPORATE OFFICE
 4540 Old Collinsville Road
 Swansea, Illinois 62226
 Tel: 618.624.4488
 Fax: 618.624.6888

SWANSEA WATER CO. • EDWARDSVILLE • CARBONDALE • ST. CHARLES

St. Clair County Transit District
 Metro
 Bi-State Development Agency

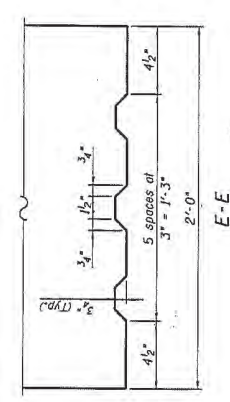
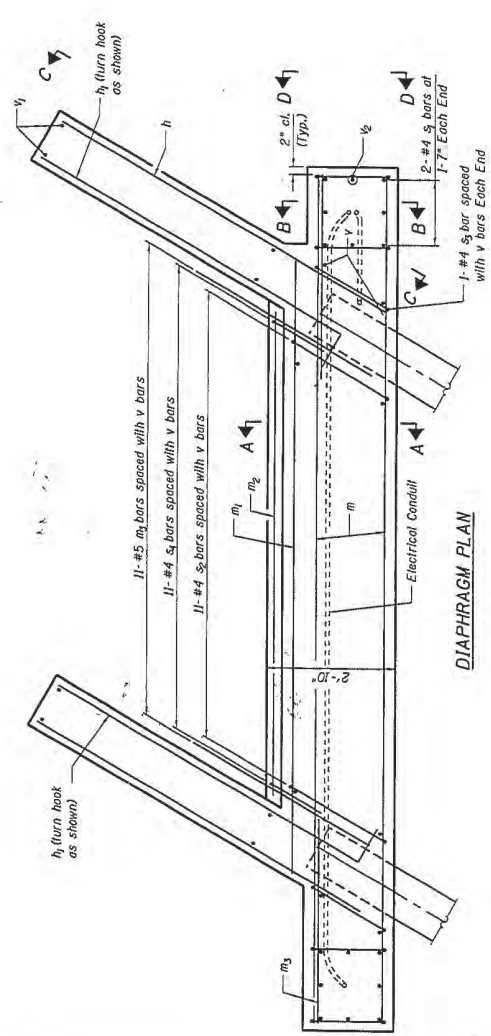
DESIGNED	MLJ
CHECKED	KFC
DRAWN	MLJ/ATH
CHECKED	KFC
DATE	2/10/2010



ELEVATION C-C

SECTION B-B

SECTION A-A



NOTES: Reinforcement bars in diaphragm are billed with substructure on Sheet 9.

ABUTMENT DIAPHRAGM
STRUCTURE B29.85 (082-7000)

F.A. R.T.L.	SECTION	COUNTY	TOTAL SHEET NO.
Metro (Typ.)	96-00001-00-EG	ST. CLAIR	218
FED. ROAD DIST. NO.	Metro/EliteLink - Swansea Section	CONTRACT NO.	60
ILLINOIS	FED. AID PROJECT		

SHEET NO. 10
 23 SHEETS

Bi-State Development Agency

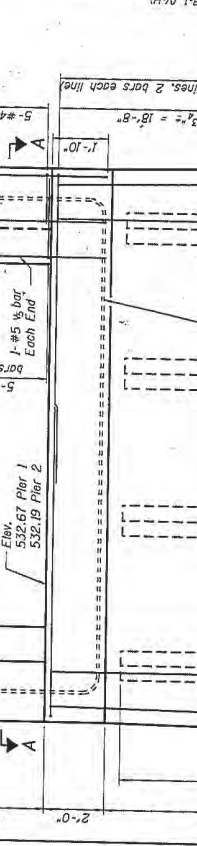
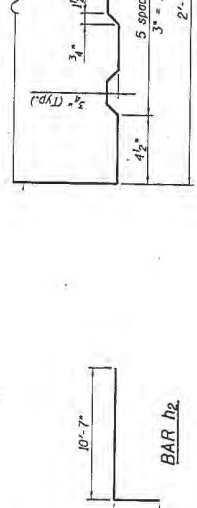
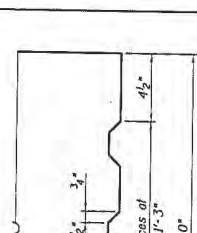
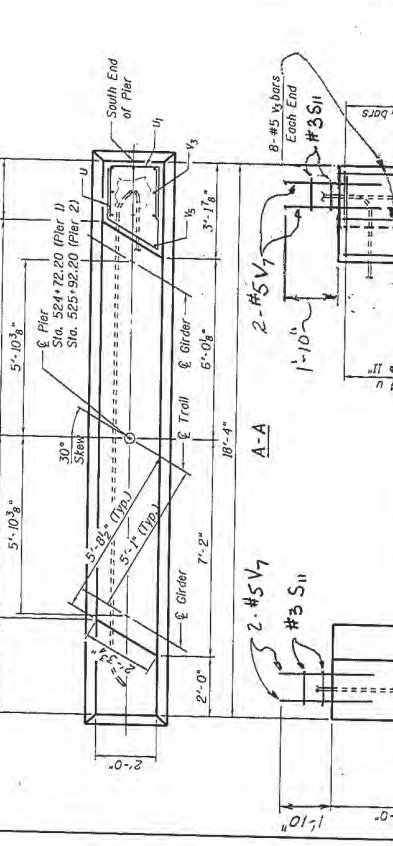
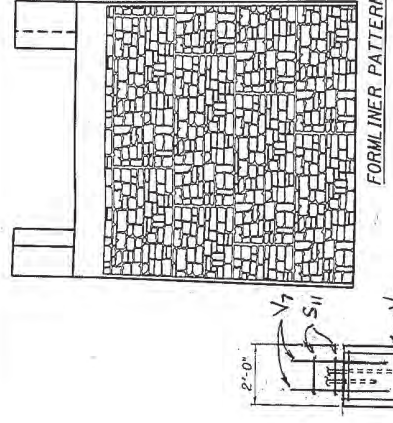
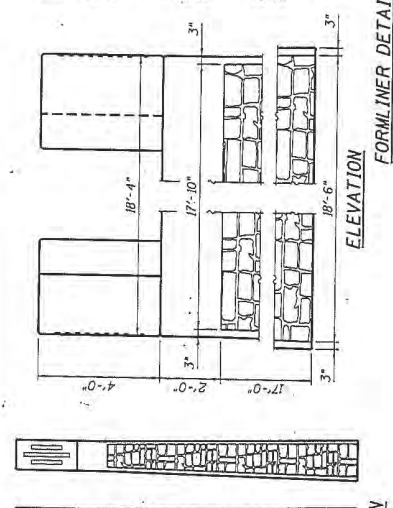
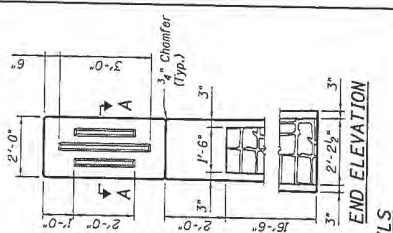


TWM
 EXCEPTIONAL SERVICE. NOTHING LESS.

THOUVENOT, WADE & MDERCHEN, INC.
 SWANSEA - WATERLOO - EDWARDSVILLE - CARBONDALE - ST. CHARLES

CORPORATE OFFICE
 4940 Old Collinsville Road
 Swansea, Illinois 62226
 Tel: 618.624.4488
 Fax: 618.624.8888

DESIGNED	MAJ
CHECKED	KPC
DRAWN	ILLI/ETH
CHECKED	KPC
DATE	27/07/2010



BILL OF MATERIAL (2 PIERS)

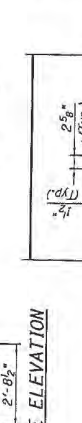
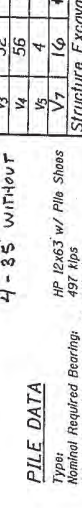
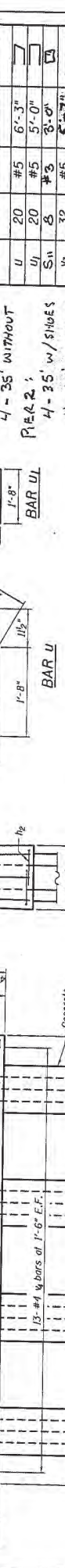
Bar No.	Size	Length	Shape
h2	#5	12'-1"	
u	#5	6'-3"	
u1	#5	5'-0"	
S11	#3	3'-0"	
v3	#5	5'-7 1/4"	
v4	#4	18'-8"	
v5	#5	5'-6"	
v7	#5	3'-8"	
Structure Excavation		Cu. Yd.	14
Concrete Structures		Cu. Yd.	63.8
Concrete Encasement		Cu. Yd.	2.8
Reinforcement Bars		Pound	1364
Form Liner Textured Surface		Sq. Ft.	528
Furnishing - Piles, HP 12x63		Foot	528
Driving Piles		Foot	528
Pile Shoes		Each	8

PILE ORDERED:

PILE 1:
4 - 30' w/ SHOES
4 - 35' WITHOUT

PILE 2:
4 - 35' w/ SHOES
4 - 35' WITHOUT

HP 12x63 w/ Pile Shoes
Nominal Required Bearing: 497 kips
Allowable Resistance Available: 166 kips
Est. Length: 70 ft. - Pier 1
70 ft. - Pier 2

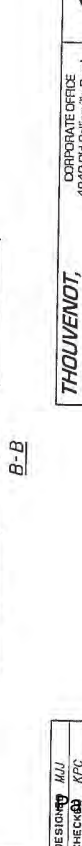
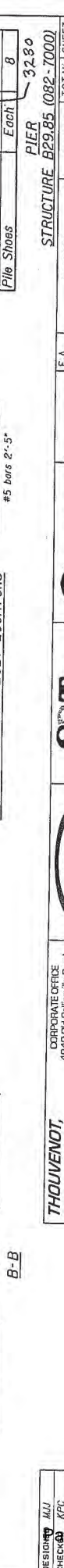


PILE DATA

Type: HP 12x63 w/ Pile Shoes
Nominal Required Bearing: 497 kips
Allowable Resistance Available: 166 kips
Est. Length: 70 ft. - Pier 1
70 ft. - Pier 2

NOTES:
1. See Sheet 13 for Pile Details.
2. See Special Provision for information on the Formliner pattern.

MINIMUM BAR LAPS
#5 bars 2'-5"



PIER 3230

STRUCTURE B29.85 (082-7000)

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9C-00001-00-EG	ST. CLAIR	218	61

CONTRACT NO. MetroRail/TK - Swansoo Section
FED. ROAD DIST. NO. ILLINOIS/FED. AID PROJECT

THOUVENOT, WADE & MOERCHEN, INC.
CORPORATE OFFICE:
4840 Old Collinsville Road
Swansoo, Illinois 62220
Tel: 618.624.4488
Fax: 618.624.6888

St Clair County Transit District

SCD
St Clair County Transit District

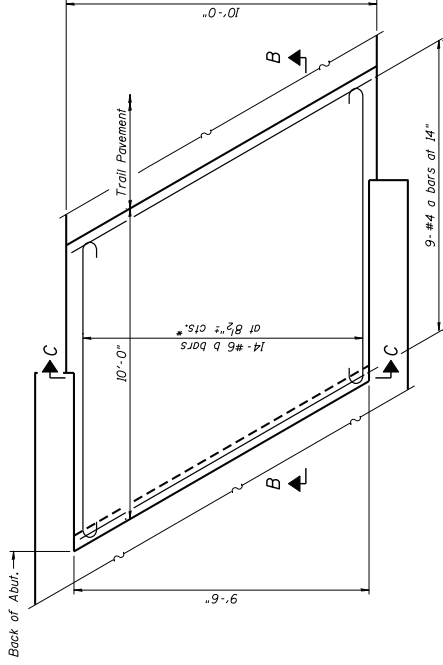
Metro

TWM
EXCEPTIONAL SERVICE.
NOTHING LESS.

Bi-State Development Agency

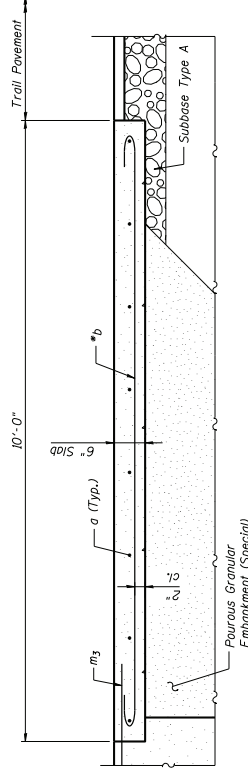
SHEET NO. 11
23 SHEETS

F.A. R.T.L.
MetroRail/TK - Swansoo Section



PLAN

* Till #6 b bars as required to maintain clearance.

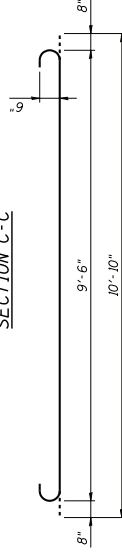


SECTION B-B

* Till #6 b bars as required to maintain clearance.



SECTION C-C



BAR b

BILL OF MATERIAL
(2 APPROACHES)

Bar	No.	Size	Length	Shape
a	18	#4	10'-7"	U
b	28	#6	10'-10"	U
Concrete Structures			Cu. Yd.	3.6
Reinforcement Bars			Pound	580

APPROACH SLAB
STRUCTURE B29.85 (082-7000)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
Metra/Ret./Ink - Swinsea Section	96-00001-00-EC	ST. CLAIR	218
		CONTRACT NO.	62
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

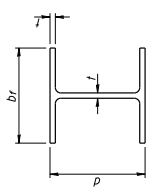
SHEET NO. 12
23 SHEETS

Bi-State Development Agency



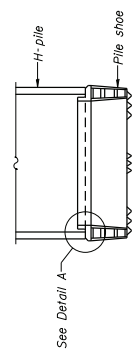
THOUVENOT, WADE & MOERCHEN, INC.
CORPORATE OFFICE
4840 Old Collinsville Road
Swinsea, Illinois 62288
Tel: 618.624.4488
Fax: 618.624.6586
SWANSEA • WATERLOO • EDWARDSVILLE • CARBONDALE • ST. CHARLES

DESIGNED BY	MU
CHECKED BY	KPC
DRAWN BY	MU
CHECKED BY	KPC
DATE	2/10/2010

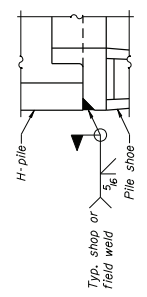


STEEL PILE TABLE

Designation	Depth 'd'	Flange width 'br'	Web and flange thickness	Encasement diameter 'A'
HP 14x17	14 1/2"	14 7/8"	5/8"	30"
x102	14"	14 3/4"	5/8"	30"
x89	13 5/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/2"	24"
x74	12 1/4"	12 1/4"	5/8"	24"
x63	12"	12 8/8"	1/2"	24"
x53	11 3/4"	12"	1/2"	24"
HP 10x57	10"	10 1/4"	5/8"	24"
x42	9 3/4"	10 3/8"	1/2"	24"
HP 8x36	8"	8 3/8"	1/2"	18"

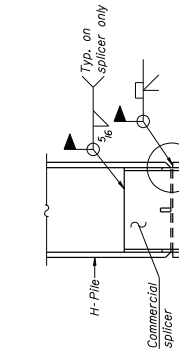


ELEVATION

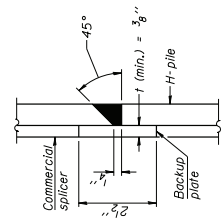


DETAIL A

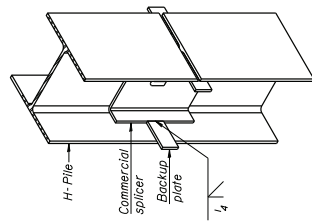
H-PILE SHOE ATTACHMENT



ELEVATION

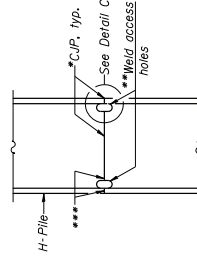


DETAIL "B"

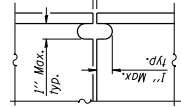


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



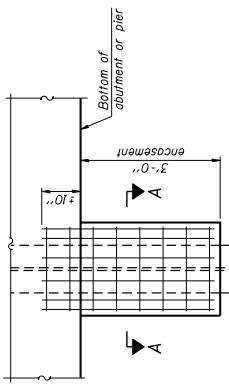
ELEVATION



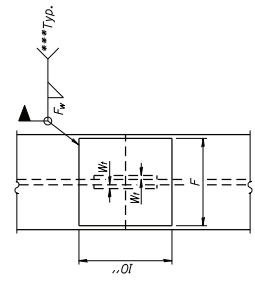
DETAIL C

COMPLETE PENETRATION WELD SPLICE

*Use joint conforming to Figure 3.4 in AWS D1.1. Structure Welding Code-Steel.
 **Preparation per Fig. 5.2 in AWS D1.1. Structure Welding Code-Steel.
 ***Interrupt welds 1/4" from end of each pile.

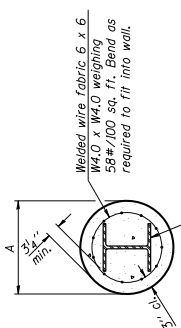


ELEVATION



END VIEW

PILE ENCASEMENT



SECTION A-A

Note: Forms for encasement may be omitted when soil conditions permit.

Designation	F	F ₁	F _w	W	W ₁	W _w
HP 14x17	12 1/2"	1"	7/8"	7 3/4"	5 9/8"	5 1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 9/8"	5 1/2"
x89	12 1/2"	3/4"	1/2"	7 3/4"	5 9/8"	5 1/2"
x73	12 1/2"	5/8"	5/8"	7 3/4"	5 9/8"	5 1/2"
HP 12x84	10"	7/8"	1/2"	6 1/2"	5 9/8"	5 1/2"
x74	10"	7/8"	1/2"	6 1/2"	5 9/8"	5 1/2"
x63	10"	5/8"	1/2"	6 1/2"	5 9/8"	5 1/2"
x53	10"	3/4"	5/8"	6 1/2"	5 9/8"	5 1/2"
HP 10x57	8"	3/4"	9/8"	5 1/2"	5 9/8"	5 1/2"
x42	8"	7/8"	5/8"	5 1/2"	5 9/8"	5 1/2"
HP 8x36	7"	5/8"	7/8"	4 1/2"	5 9/8"	5 1/2"

F-HP 5-16-08

DESIGNED	
CHECKED	
DRAWING	
CHECKED	
DATE	2/10/2010

STRUCTURE B29.85 (082-7000)

Note: The steel H-piles shall be according to AASHTO M270 Grade 50.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
13	96-00001-00-EC	ST. CLAIR	218
SHEET NO.	SWANSEA SECTION	CONTRACT NO.	63
23 SHEETS	Metro/BI/CL/IN/Link	ILLINOIS FED. AID PROJECT	

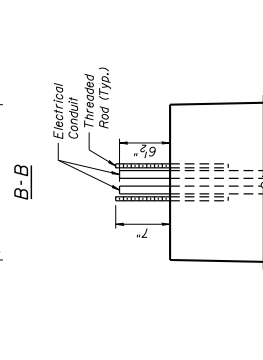
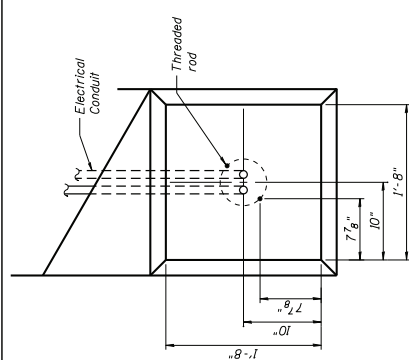
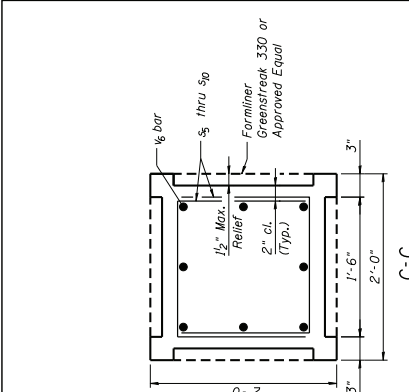
Bi-State Development Agency
 Metro

St. Clair County Transit District

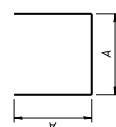
TWM EXCEPTIONAL SERVICE NOTHING LESS

THOUVENOT, WADE & MDCRCHEN, INC.
 CORPORATE OFFICE
 4840 Old Collinsville Road
 Swansea, Illinois 62226
 Tel: 618.624.4488
 Fax: 618.624.8558
 SWANSEA • WATERLOO • EDWARDSVILLE • CARBONDALE • ST. CHARLES

WELDED PLATE FIELD SPLICE



Bar	A	Length
5#	1'-1/2"	3'-3"
5#	1'-1/2"	3'-6"
5#	1'-2 3/4"	3'-8"
5#	1'-3 3/4"	3'-10"
5#	1'-4 1/2"	4'-0"
5/8	1'-4 1/2"	4'-3"



DETAIL OF BARS s5 thru s10

BILL OF MATERIAL (8 COLUMNS)

Bar	No.	Size	Length	Shape
5#	16	#4	3'-3"	□
5#	16	#4	3'-6"	□
5#	16	#4	3'-8"	□
5#	16	#4	3'-10"	□
5#	16	#4	4'-0"	□
5/8	16	#4	4'-3"	□
5/8	64	#5	7'-8"	□
Concrete Structures: Cu. Yd. 8.0				
Formliner textured: Sq. Ft. 320				
Reinforcement Bars: Pound 750				

NOTES:
 Offset form liner to pattern symmetry.
 Position formliner on architectural columns to minimize large blocks.
 Cost of precast column cap and mortar bed is included in the cost of precast concrete panels. See Sheet 16 for Section A-A.
 * Sternberg Lighting Model Numbers shown. Alternative lighting to be approved by Engineer. See Electrical Plans and Special Provision.

PIER & ABUTMENT COLUMNS
 STRUCTURE B29.85 (082-7000)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS NO.
96-00001-00-EC <td>96-00001-00-EC <td>ST. CLAIR</td> <td>218</td> </td>	96-00001-00-EC <td>ST. CLAIR</td> <td>218</td>	ST. CLAIR	218
MetroBikeLink	Swansea Section	CONTRACT NO.	65
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

SHEET NO. 15
 23 SHEETS

Bi-State Development Agency
 Metro
 St. Clair County Transit District

SCD
 St. Clair County Transit District

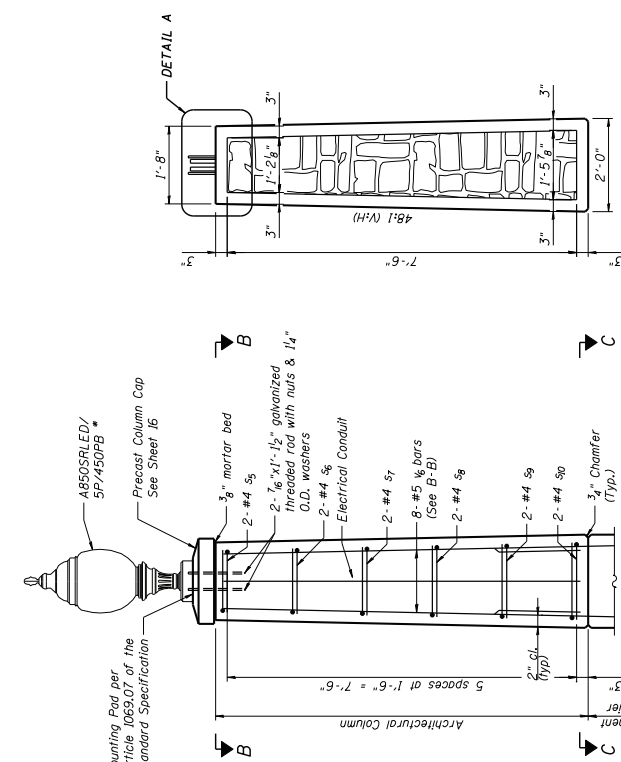
TWM
 EXCEPTIONAL SERVICE
 NOTHING LESS.

THOUVENOT, WADE & MOERCHEN, INC.
 CORPORATE OFFICE
 4840 Old Collingdale Road
 Swansea, Illinois 62226
 Tel: 618.824.4488
 Fax: 618.824.8588
 SWANSEA • WAREHO • EDWARDSVILLE • CARBONDALE • ST. CHARLES

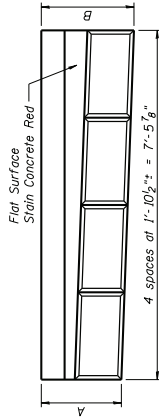
DESIGNED BY	MLU
CHECKED BY	KPC
DRAWN BY	MLU
CHECKED BY	KPC
DATE	2/10/2010

ARCHITECTURAL ELEVATION

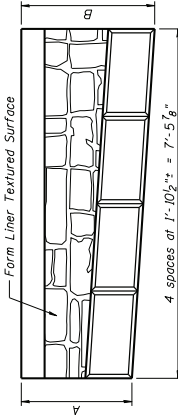
SIDE ELEVATION



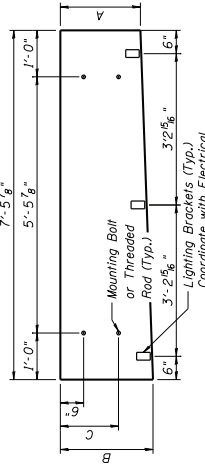
Panels	A	B	C
1 & 9	1'-6"	1'-6 $\frac{1}{2}$ "	1'-3 $\frac{1}{4}$ "
2, 10 & 17	1'-6"	1'-8 $\frac{1}{2}$ "	1'-3 $\frac{1}{4}$ "
3 & 11	1'-8 $\frac{1}{2}$ "	1'-11 $\frac{1}{2}$ "	1'-3 $\frac{1}{4}$ "
4 & 12	1'-11 $\frac{1}{2}$ "	2'-4 $\frac{1}{2}$ "	1'-6"
5 & 13	2'-4 $\frac{1}{2}$ "	2'-10 $\frac{1}{2}$ "	1'-11"
6 & 14	2'-10 $\frac{1}{2}$ "	3'-5 $\frac{1}{2}$ "	2'-5"
7 & 15	3'-5 $\frac{1}{2}$ "	4'-2 $\frac{1}{2}$ "	3'-4"
8 & 16	4'-2 $\frac{1}{2}$ "	4'-10 $\frac{1}{2}$ "	3'-7 $\frac{1}{2}$ "



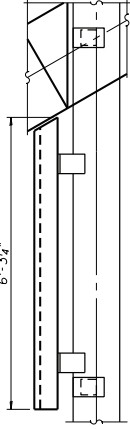
TOP OF PANELS 2 TO 7 & 10 TO 15



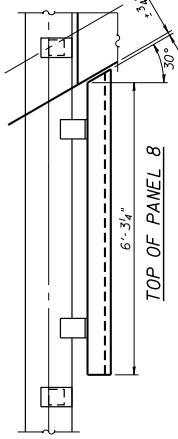
FRONT OF PANELS 2, 3, 10, 11 & 17



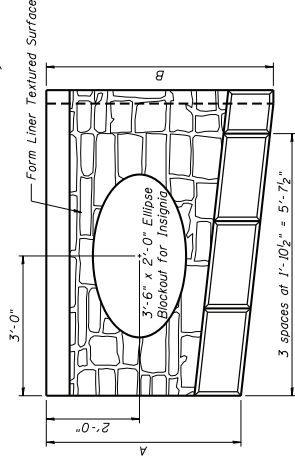
BACK OF PANELS 2, 3, 10, 11 & 17



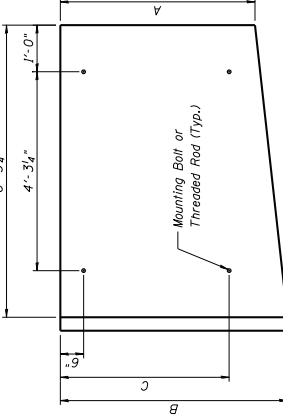
TOP OF PANEL 16



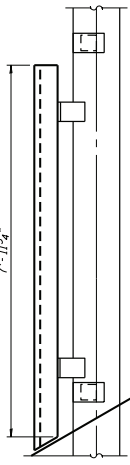
TOP OF PANEL 8



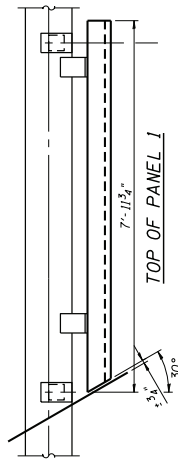
FRONT OF PANEL 8 (16 similar)



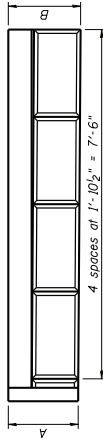
BACK OF PANEL 8 (16 similar)



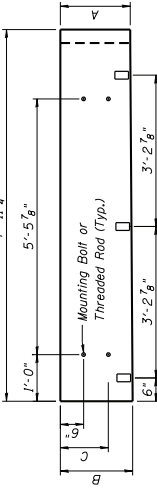
TOP OF PANEL 9



TOP OF PANEL 1



FRONT OF PANEL 1 (9 similar)



BACK OF PANEL 1 (9 similar)

DESIGNED BY: MJU
 CHECKED BY: KPC
 DRAWN BY: MJU
 CHECKED BY: KPC
 DATE: 2/10/2010

THOUVENOT, WADE & MOERCHEN, INC.
 SWANSEA - WATERLOO - EDWARDSVILLE - CARBONDALE - ST. CHARLES
 CORPORATE OFFICE
 4940 Old Collingdale Road
 Swansea, Illinois 62226
 Tel: 618.624.4488
 Fax: 618.624.6555

TWM
 EXCEPTIONAL SERVICE
 NOTHING LESS.

SCD
 St. Clair County Transit District

Metro
 Bi-State Development Agency

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
96-00001-00-EC	96-00001-00-EC	ST. CLAIR	218
Metrolink	Swansea Section		67
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		CONTRACT NO.

ARCHITECTURAL PANELS
 STRUCTURE B29.85 (082-7000)

