Steve says this is the same "go by" as Spectrum Cvr. Ltr. is Acknowledgement

June 26, 2003

Mr. David Martinez
Roadmaster
Dallas, Garland & Northeastern Railroad, Inc.
403 International Pkwy., Suite 500
Richardson, Texas 75081

Re: Railroad Crossing
Landmark/S. Quorum

Dear Mr. Martinez:

The Town of Addison is in receipt of your correspondence, dated June 19, 2003, regarding proposed Grade Crossing improvements at Landmark/S. Quorum Drive. In accordance with the New Public Highway Crossing Agreement, dated January 20, 2003, the Town of Addison agrees to pay the Dallas, Garland & Northeastern Railroad, Inc. (DGNO) for the work performed and materials supplied by the DGNO related to the construction of the crossing improvements. The Town will furnish signs and barricades, concrete approaches and install all signs and pavement markings.

The Town of Addison will also require any contractor that performs work within the right-of-way of the DGNO to execute the Contractor's Right of Entry Agreement with the Railroad.

Should you have any questions, please contact my office at 972-450-2871.

Sincerely,

Michael E. Murphy, P.E.
Director of Public Works

25th Anniversary
1978-2003

COWLES & THOMPSON
A Professional Corporation
ATTORNEYS AND COUNSELORS

JOHN M. HILL
214.672.2170
JHILL@COWLESTHOMPSON.COM

January 27, 2003

Earl Bullock
County Clerk
Records Building
509 Main Street, Second Floor
Dallas, Texas 75202

RE: New Public Highway Crossing Agreement

Dear Mr. Bullock:

Enclosed please find an original and two (2) copies of a New Public Highway Crossing Agreement from Dallas Garland & Northeastern Railroad.

Please file the original in the Dallas County Real Property Records and file-stamp and date the enclosed copies and return the copies to me in the self-addressed, stamped envelope which is enclosed with this letter. Once the original has been filed, please return the original to:

John M. Hill
Cowles & Thompson, P.C.
901 Main Street, Suite 4000
Dallas, TX 75202

A check in the amount of $73.00 is enclosed as the filing fee to file the original of the Agreement.

Thank you for your help and attention to this matter. Should you have any questions, please give me a call.

Very truly yours,

John M. Hill

JMH/yjr
Enclosures

cc: Mr. Jim Pierce
Mr. Ken C. Dippel, w/firm

901 MAIN STREET SUITE 4000 DALLAS, TEXAS 75202-3793
TEL 214.672.2000 FAX 214.672.2020
WWW.COWLESTHOMPSON.COM

TOWN OF ADDISON

Public Works / Engineering
16801 Westgrove • P.O. Box 144
Addison, Texas 75001
Telephone: (214) 450-2871 • Fax: (214) 931-6643

LETTER OF TRANSMITTAL

DATE 3/10/03	JOB NO.
ATTENTION	
RE:	

TO CARMEN MORAN

GENTLEMAN:

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	3/10/03		NEW PUBLIC HIGHWAY CROSSING AGREEMENT

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☑ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: Stan Shankman

If enclosures are not as noted, please notify us at once.

MEMORANDUM

TO: **Jim Pierce**

FROM: **John Hill**

RE: **New Public Highway Crossing Agreement - Landmark Blvd.**

DATE: **September 30, 2002**

Jim, I have reviewed the proposed New Public Highway Crossing Agreement (Landmark Blvd.) and have the following comments:

1. The Agreement names only Dallas Garland & Northeastern Railroad (DGNO) as the "Railroad" and not Union Pacific (UP). However, UP is referred to a number of times in the Agreement (eg, see Article 3) and the Exhibits. If UP has an interest in the railroad line, then it needs to be added to the Agreement. If not, then the references to UP should be deleted.

2. Add a provision to the Recitals stating what DGNO's interest is in the railroad, eg, that "DGNO is the sole owner of the Crossing Area which is the subject of this Agreement and has full power and authority to execute this Agreement without the joinder, approval or consent of any other person or entity."

3. Article 1 – Amend as follows:

> "For and in consideration of the Town's agreement to perform and abide by the terms of this Agreement, including **Exhibit A, B, and B-1**, attached hereto and hereby made a part hereof, of the payment set forth in Article 2 hereof, and of other good and valuable consideration, the sufficiency of which is hereby acknowledged, DGNO hereby grants and conveys to the Town in perpetuity (subject to the Railroad's option to terminate this Agreement for nonuse of the Crossing Area for public roadway purposes for a period of 18 consecutive months as described and provided in Section 11b) of Exhibit B to this Agreement), the right to establish, construct, maintain, repair, replace, reconstruct, renew, and use a public highway and right of way at grade over and across the Crossing Area, (together with any and all uses incidental thereto, including, without limitation, the installation, repair, maintenance, and replacement of water lines, sanitary sewer lines, drainage, and other utilities typically located underground within the public right-of-way), provided that the DGNO consents in writing to the installation of the above utilities, such consent not be unreasonably withheld, together with the right of entry to control and remove from the DGNO's right-of-way, on each side of the Crossing Area, weeds and vegetation which may obstruct the view of motorists approaching the Crossing Area~~, and to any trains that may be also approaching the Crossing Area~~."

4. Article 2

(a) This provides that the crossing will occur "in the middle of an existing DGNO rail yard area." Is that correct?

(b) When is the payment to be made to DGNO?

(c) Amend as follows:

"The new crossing will occur in the middle of an existing DGNO rail yard area. The crossing and other rights granted and conveyed by the Railroad herein and use thereof by the Town will cause the Railroad~~railroad~~ to incur increased rail operations and expense. To reduce the increased rail operating expense, the Town and DGNO acknowledge that occasionally the crossing may be blocked for more than five (5) minutes during night rail yard movements from 10:00 PM to 5:00 AM. As full and complete payment, compensation and satisfaction to the Railroad (i) for such increased rail operations and any and all costs, fees, charges, or expenses incurred in connection therewith or related thereto or arising out of any negative impact to the Railroad's current and future operations from the use of the Crossing Area, and (ii) for the rights granted and conveyed herein by the Railroad, the~~The~~ Town agrees to pay to DGNO **THREE HUNDRED SEVENTY SEVEN THOUSAND DOLLARS ($377,000~~376,000~~)**~~,the complete and total compensation for these increased operating costs~~."

5. Article 3

(a) In Paragraph A., delete the phrase "(as defined in Section 8(a) of **Exhibit B** to this Agreement)". Section 8(a) of Exhibit B defines the Town as including the Town's contractors, subcontractors, officers, agents, and employees, and others acting under its or their authority. There is no reason to define "Town" that broadly in Article 3.

(b) In Paragraph D., "Towns" should be "Town's".

6. Article 4

The word "Contract's" in the third line should be "Contractor's".

7. Article 5

(a) In the last line of Paragraph A, the word "unreasonably" is misspelled.

(b) Amend the last part of Paragraph B as follows:

"...and PROVIDED, FURTHER, that the cost of repair or replacement resulting from damage caused by non-parties that is not recoverable by DGNO (after using its best efforts to recover such cost) from the non-parties shall be borne entirely by the Town."

8. Add a new provision:

"In the event of any action under this Contract, venue for all causes of action shall be instituted and maintained in Dallas County, Texas (State court) or the Northern District of Texas, Dallas Division (Federal court), as the case may be. The parties

agree that the laws of the State of Texas shall govern and apply to the interpretation, validity and enforcement of this Contract; and, with respect to any conflict of law provisions, the parties agree that such conflict of law provisions shall not affect the application of the law of Texas (without reference to its conflict of law provisions) to the governing, interpretation, validity and enforcement of this Agreement."

9. The Agreement (or a memorandum of the Agreement) should be recorded so that the Town's interest will be shown of record ; therefore, add acknowledgments after the signatures.

EXHIBIT B – Public Highway Crossing

1. Section 1

(a) In subsection a), amend the first sentence as follows:

"The Railroad makes no covenant or warranty for quiet possession or against encumbrances; the Railroad warrants and represents that it is the sole owner of the Crossing Area which is the subject of this Agreement and that it has full power and authority to execute this Agreement and to grant and convey to the Town the rights and interest described herein without the joinder, approval or consent of any other person or entity."

(b) In subsection (b), "UP" is referred to on two occasions. If UP does not have any interest in the Crossing Area, then the reference to "UP" should be deleted.

(c) In the second sentence of subsection c), change "railroad property" to "Crossing Area". Also, please note that subsection c) provides that the grant by DGNO is "subject to any existing encumbrances and rights (whether public or private), recorded or not, and also to any renewals thereof." The title should be reviewed to determine what encumbrances and rights are recorded. If you will forward to me a legal description of the property which is the subject of the Crossing Agreement, I will initiate that process with a title company.

(d) Amend subsection e) as follows:

"So far as it may lawfully do so, the Town will assume, bear and pay all taxes and assessments of whatsoever nature or kind (whether general, local or special) levied or assessed upon or against the Crossing Area which are directly related to the Town's rights therein and use thereof, excepting taxes levied upon and against the property as a component part of the Railroad's operating property."

(e) Amend subsection f) as follows:

"If any property or rights other than the rights~~right~~ hereby granted are necessary for the construction, maintenance and use of the highway and its appurtenances, or for the performance of any work in connection with the Project, the Town will acquire all such other property and rights at its own expense and without expense

to the Railroad; provided, however, that the Railroad hereby represents that the Railroad is not aware of any such property or rights which the Town may need to acquire in order to construct, maintain and use the highway and its appurtenances."

2. Section 2 – In subsection e), "three (3)" has been struck-through. Rather than striking through, delete it. Also, is five years an adequate amount of time for construction of the project? Amend the first sentence of subsection e) as follows:

"All construction work of the Town shall be performed diligently and completed within a reasonable time, and in any event the initial construction work to construct the highway shall be completed within five (5) years from the effective date of this Agreement~~,~~ or within such further period of time as may be specified in writing by the Railroad's Vice President-Engineering Services."

3. Section 4 – Subsection b) states that the Railroad may, in connection with the Crossing Area, contract for the performance of its work by other than railroad forces, and that the Town is to reimburse the Railroad for the amount of the contract (unless the work is performed on a fixed price basis). What is this work that the Railroad would contract for? Is this in connection with the initial construction work only? The obvious concern is the amount of such a contract, since the Town will pay for it. Consider amending the subsection as follows:

"In connection with the Crossing Area, certain work will need to be performed exclusively by the Railroad (and the Railroad shall notify the Town of the nature of such work). The~~the~~ Railroad may contract for the performance of any of such~~its~~ work by other than railroad forces; provided, however, that prior to so contracting, the Railroad shall give notice to the Town of its intent to do so and an estimate of the cost of such work. The Railroad shall seek to obtain a reasonable and cost effective price for such work. The Railroad shall give reasonable notice to the Town of its intent to work on the Crossing Area, and the Railroad and Town agree to work together to coordinate such work and its effect on the Crossing Area. The Railroad shall notify the Town of the contract price within ten~~ninety~~ (10~~90~~) days after it is awarded. Unless the Railroad's work is to be performed on a fixed price basis, the Town shall reimburse the Railroad for the amount of the contract."

4. Section 8 - Amend subsection a) as follows:

"~~All~~ Referencesreferences in this Section 8~~Agreement~~ to the Town shall include, where applicable, the Town's contractors, subcontractors, officers, agents and employees, and others acting under its or their authority; and all references in this Section 8~~Agreement~~ to work of the Town shall include work both within and outside of railroad property, provided that such work is in connection with the Crossing Area."

5. Section 9 – Amend the first part as follows:

"If at anytime it is determined by a competent governmental authority, by the Town, or by agreement between the parties, that new or improved train activated warning devices should be installed at the Crossing Area..."

6. Section 11

(a) Amend subsection a) as follows:

"If the Town shall fail, refuse or neglect to perform and abide by the terms of this Agreement after written notice of such failure, refusal, or neglect is provided by the Railroad to the Town and the Town has not cured such failure, refusal, or neglect within a reasonable period of time after its receipt of such notice, the Railroad, in addition to any other rights and remedies, may perform any work which in the judgment of the Railroad is necessary to place the highway and appurtenances in such condition as will not menace, endanger or interfere with the Railroad's facilities or operations or jeopardize the Railroad's employees; and the Town will reimburse the Railroad for the expenses thereof."

(b) Amend subsection b) as follows:

"Nonuse by the Town of the Crossing Area for public roadway purposes continuing at any time for a period of eighteen (18) consecutive months shall, after at least ten (10) days notice to the Town (during which ten (10) day period the Town shall have the right to discontinue such nonuse), at the option of the Railroad, work a termination of this Agreement and of all rights of the Town hereunder."

EXHIBIT C
Contractor's Right of Entry Agreement

1. This Exhibit references Union Pacific as the party in interest, not DGNO. If Union Pacific has no interest in the crossing area, this Exhibit will need to be revised.

2. Recitals – Amend as follows:

"By agreement dated _____, the Railroad granted the ***Town of Addison, Texas*** (hereinafter 'Licensee') the right to construct, establish, maintain, repair, renew, and use ~~a~~two new at-grade public road crossings for Landmark Blvd.~~Arapaho Road~~ on the property of the Railroad at Milepost 598.3(??), on the Dal-North Branch, at or near Addison, Dallas County, Texas.

A~~The Town's~~ Contractor has been retained~~employed~~ by the Licensee to construct ~~a~~two new at-grade public road crossings for Landmark Blvd.~~Arapaho Road~~ (hereinafter referred to as the 'work') and has requested the Railroad to permit it to perform the work on Railroad property, to which the Railroad is agreeable, subject to the following terms and conditions."

3. Article 2

(a) The first sentence contains a reference to "Mile Post 598.3 on the Railroad's Dal-Nor Branch." Please make sure that the reference is correct.

(b) The second sentence provides that the area for performing the construction work is limited to "those portions of the Railroad's property specifically described herein." Please make sure that this is adequate for the construction of the project.

4. Article 8 Amend as follows:

"In the event of any action or litigation~~Litigation~~ arising out of or connected with this Agreement~~agreement~~, such action or litigation shall~~may~~ be instituted and maintained in Dallas County, Texas (State court) or in the Northern District of Texas, Dallas Division (Federal court), as the case may be,~~the courts of the states of Nebraska and Texas~~, and the parties consent to jurisdiction over their person and over the subject matter of any such litigation, in those courts, and consent to service of process issued by such courts. The parties agree that the laws of the State of Texas shall govern and apply to the interpretation, validity and enforcement of this Agreement; and, with respect to any conflict of law provisions, the parties agree that such conflict of law provisions shall not affect the application of the law of Texas (without reference to its conflict of law provisions) to the governing, interpretation, validity and enforcement of this Agreement."

EXHIBIT B
to Contractor's Right of Entry Agreement

1. Section 2, Paragraph A – Amend as follows:

"The foregoing grant of right is subject and subordinate to the prior and continuing right and obligation of the Railroad to use and maintain its entire property including the right and power of the Railroad to construct, maintain, repair, renew, use, operate, change, modify or relocate tracks, roadways, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by the Railroad ~~without liability to the Contractor or to any other party for compensation or damages~~."

2. Section 5 – In Paragraph A, the listed phone number may be for Union Pacific, and will need to be changed if UP has no interest.

It is not clear what the second sentence of Paragraph B means.

cc: Mr. Ken Dippel

PARSONS

15770 North Dallas Parkway, Suite 500 • Dallas, Texas 75248 • (972) 991-1900 • Fax: (972) 490-9261 • www.parsons.com

October 7, 2002

Mr. Steven Chutchian, P.E.
Town of Addison
16801 Westgrove Road
Addison, Texas 75001

RE: Inwood / South Quorum Access – Phase II
Request for Supplemental Agreement No. 4

Dear Mr. Chutchian,

Parsons is pleased to submit this proposal to provide additional professional engineering services in connection with the above referenced project. Based on our recent discussions with you, we have prepared a Scope of Services. If accepted, this letter will become an agreement between the Town of Addison and Parsons to provide the services outlined below.

SCOPE OF SERVICES

Our Scope of Services includes the work defined in the following tasks:

Task 1 Additional Topographic Survey for Design at Inwood/South Quorum connection.

Task 2 Revise Landmark Place Plan and Profile and include drainage if necessary.

Task 3 Update 100% Plans and Address Minor Comments from the Town.

Task 4 Finalize Quantities and Construction Estimate.

Task 5 Prepare Bid Documents, including advertisement for bids, addenda, bid tabulation, and recommendation of award.

Task 6 Review Signal Shop Drawings.

Task 7 Prepare As-builts.

As we have discussed, the Town of Addison will perform any necessary utility coordination and the evaluation of all bid proposals received in relation to this project. We also anticipate very minimum revisions to the already submitted 100% plans other than those described above. If significant plan revisions become necessary in the future, the work will be considered additional service and Parsons shall be compensated separately.

PROJECT ADMINISTRATION AND MANAGEMENT

We have included twenty (20) hours in our budget for administering the supplement agreement between the Town and Parsons and also the supplement agreement between Parsons and DalTech Engineering, Inc., who is providing the additional survey service.

MEETINGS

For the purpose of the fee estimate, we have identified four (4) meetings (1 kick-off meeting, 1 plan review meeting, 1 pre-bid meeting, and 1 pre-construction meeting) with the Town of Addison. Additional meetings will be beyond this proposal and will be considered as additional services. We are certainly available to attend any meetings deemed necessary. However, these meetings will be billed separately, based on time and expenses incurred.

CONSTRUCTION SERVICES

The level of effort for construction services, if necessary, is unknown at this time and is not included in the lump sump fee amount. If assistance during construction is required, we will be compensated on an hourly basis for all Parsons personnel engaged directly on the project plus expenses.

Direct expenses would be reimbursed at cost.

DELIVERABLES

Parsons will deliver the following products to the Town of Addison:

1. Two (2) paper sets of the revised 100% plans for review purposes in half-scale format (11" X 17").
2. One (1) paper set of the final signed and sealed plans in half-scale format (11" X 17"). One (1) paper set of the final signed and sealed plans in full size.
3. One (1) copy of the construction cost estimate.
4. Twenty-five (25) copies of the contract documents for bidding.
5. One (1) paper set of the as-builts in half-scale format (11" X 17").
6. One (1) electronic copy of the as built plans.

FEE FOR SERVICES AND METHOD OF PAYMENT

The Lump Sum fee for completing the project (excluding construction services) is based on our current hourly rates for staff personnel and expected out-of-pocket expenses, for staff services rendered. The maximum lump sump fee for completion will not exceed $17,110.00 without prior written authorization from the Town of Addison.

Invoices will be submitted monthly on a percent complete basis. Billings are due and payable within fourteen (14) days after receiving payment from the Owner.

The fee for extra services, meetings, work sessions, and presentations (and work in addition to the tasks indicated in the Scope of Services) will be billed separately based on our hourly rates for staff time and expense after written approval to provide such services by the Town of Addison.

AUTHORIZATION

We request that you supplement our contract dated August 2, 1999, in the amount of $17,110 to cover these costs. This would bring our total contract amount to $124,000. When signed below, this letter will serve as a supplemental agreement to our contract for engineering services. We are prepared to initiate work on this project upon receipt of a signed copy of this Letter of Agreement. We appreciate the opportunity to submit this proposal and look forward to assisting you on this project. If you have any questions regarding this proposal, please do not hesitate to call.

Sincerely,

PARSONS

Weidong Li

Weidong Li, P.E.
Project Manager

Dave N Carter

Dave N. Carter, P.E., P.T.O.E.
Principal Engineer
Dallas Area Manager

ACCEPTED AND APPROVED BY

Michael E. Murphy, P.E.
Director of Public Works
Town of Addison

TOWN OF ADDISON

PUBLIC WORKS DEPARTMENT (972) 450-2871 FAX (972) 450-2837

Post Office Box 9010 Addison, Texas 75001-9010 16801 Westgrove

September 24, 2002

Lance Long
Southwestern Bell Telephone Company
1341 West Mockingbird Land, Suite 950E
Dallas, Texas 75247

Re: Inwood/S. Quorum, Phase II

Dear Mr. Long:

The Town of Addison has completed engineering design of the Inwood/ S. Quorum, Phase II project. These improvements will provide a new rail crossing and associated drainage improvements along Inwood Rd. The attached half-scale drawings are provided for your review of potential utility conflicts in this vicinity.

It is the intention of the Town to initiate the bidding process in December 2002. Please notify the Town of any conflicts regarding your utility and proceed to perform necessary relocation in a timely manner. Your assistance in this matter is greatly appreciated. Should you have any questions, please contact me at 972-450-2860. Thank you.

Sincerely,

Luke Jalbert
Project Manager

TOWN OF ADDISON®

PUBLIC WORKS DEPARTMENT (972) 450-2871 FAX (972) 450-2837

Post Office Box 9010 Addison, Texas 75001-9010 16801 Westgrove

September 24, 2002

James Davis
Encor Electric
301 S. Harwood
6th floor south
Dallas, Texas 75201

Re: Inwood/S. Quorum, Phase II

Dear Mr. Davis:

The Town of Addison has completed engineering design of the Inwood/ S. Quorum, Phase II project. These improvements will provide a new rail crossing and associated drainage improvements along Inwood Rd. The attached half-scale drawings are provided for your review of potential utility conflicts in this vicinity.

It is the intention of the Town to initiate the bidding process in December 2002. Please notify the Town of any conflicts regarding your utility and proceed to perform necessary relocation in a timely manner. Your assistance in this matter is greatly appreciated. Should you have any questions, please contact me at 972-450-2860. Thank you.

Sincerely,

Luke Jalbert
Project Manager

PARSONS

PARSONS TRANSPORTATION GROUP INC.
15770 North Dallas Parkway, Suite 500
Dallas, Texas 75248
(972) 991-1900 – (972) 490-9261 FAX

TO: Mr. Jim Pierce, P.E.

FAX: 972.450.2837 **PHONE:** 972.450.2879

FROM: Weidong Li, P.E.

DATE: 9-23-02 **# OF PAGES:** 5

Jim,

I'm faxing you the proposal for the additional services for the Inwood/South Quorum Access project. We appreciate the opportunity and look forward to working with you on this project. Should you have any questions, please feel free to call me at 972.991.1900 or email me at weidong.li@parsons.com.

Sincerely,

PARSONS TRANSPORTATION GROUP, INC.

Weidong Li
Project Manager

To Weidong Li
Please revise & resubmit
Jim 10-3-02
P.S. Send to Steve Chutchian

PARSONS

15770 North Dallas Parkway, Suite 500 • Dallas, Texas 75248 • (972) 991-1900 • Fax: (972) 490-9261 • www.parsons.com

September 23, 2002

Mr. James C. Pierce, Jr., P.E.
Town of Addison
16801 Westgrove Road
Addison, Texas 75001

RE: Inwood / South Quorum Access – Phase II
Request for Supplemental Agreement No. 4

Dear Jim,

Parsons is pleased to submit this proposal to provide additional professional engineering services in connection with the above referenced project. Based on our recent discussions with you, we have prepared a Scope of Services. If accepted, this letter will become an agreement between the Town of Addison and Parsons to provide the services outlined below.

SCOPE OF SERVICES

Our Scope of Services includes the work defined in the following tasks:

Task 1 Additional Topographic Survey for Design at Inwood/South Quorum connection.

Task 2 Revise Landmark Place Plan and Profile to include drainage if necessary.

Task 3 Update 100% Plans and Address Minor Comments from the Town.

Task 4 Finalize Quantities and Construction Estimate.

Task 5 Prepare Bid Documents including advertisement for bids, addenda, bid tabulation and recommendation of award.

Task 6 Review Signal Shop Drawings.

Task 7 Prepare As-builts.

As we have discussed, the Town of Addison will perform any necessary utility coordination and the evaluation of all bid proposals received in relate to this project. We also anticipate very minimum revisions to the already submitted 100% plans other than those described above. If significant plan revisions become necessary in the future, the work will be considered additional service and Parsons shall be compensated separately.

PROJECT ADMINISTRATION AND MANAGEMENT

We have included twenty (20) hours in our budget for administering the supplement agreement between the Town and Parsons and also the supplement agreement between Parsons and DalTech Engineering, Inc., who is providing the additional survey service.

MEETINGS

For the purpose of the fee estimate, we have identified four (4) meetings (1 kick-off meeting, 1 plan review meeting, 1 pre-bid meeting, and 1 pre-construction meeting) with the Town of Addison. Additional meetings will be beyond this proposal and will be considered as additional services. We are certainly available to attend any meetings deemed necessary. However, these meetings will be billed separately, based on time and expenses incurred.

CONSTRUCTION SERVICES

Assistance during construction will be compensated on an hourly basis for all Parsons personnel engaged directly on the project plus expenses.

Direct expenses would be reimbursed at cost.

DELIVERABLES

Parsons will deliver the following products to the Town of Addison:

1. One ~~(1)~~ 2 paper sets of the revised 100% plans for review purposes in half-scale format (11" X 17").
2. One (1) mylar set and one (1) paper set of the final signed and sealed plans in half-scale format (11" X 17"), one full size set.
3. One (1) copy of the construction cost estimate.
4. ~~One (1)~~ 25 copies of the contract documents, for bidding
5. One (1) paper set of the as-builts in half-scale format (11" X 17").
6. One (1) electronic copy of the ~~final~~ as built plans.

FEE FOR SERVICES AND METHOD OF PAYMENT

The Lump Sum fee for completing the project is based on our hourly rates for staff personnel, current at the time of performance, and expected out-of-pocket expenses, for staff services rendered. The maximum fee and expenses for completion will not exceed $15,700.00 without prior written authorization from the Town of Addison.

Invoices will be submitted monthly on a percent complete basis. Billings are due and payable within fourteen (14) days after receiving payment from the Owner.

The fee for extra services, meetings, work sessions, and presentations (and work in addition to the tasks indicated in the Scope of Services) will be billed separately based on our hourly rates for staff time and expense after written approval to provide such services by the Town of Addison.

AUTHORIZATION

We request that you supplement our contract dated August 2, 1999, in the amount of $15,700 to cover these costs. This would bring our total contract amount to $122,590. When signed below, this letter will serve as a supplemental agreement to our contract for engineering services. We are prepared to initiate work on this project upon receipt of a signed copy of this Letter of Agreement. We appreciate the opportunity to submit this proposal and look forward to assisting you on this project. If you have any questions regarding this proposal, please do not hesitate to call.

Sincerely,

PARSONS

Weidong Li, P.E.
Project Manager

Dave N. Carter, P.E., P.T.O.E.
Principal Engineer
Dallas Area Manager

ACCEPTED AND APPROVED BY

_____
(Signature)

~~(Printed or Typed Name)~~
Michael Murphy, P.E.

~~(Title)~~ Dir. of Public Works
Town of Addison
~~AUTHORIZED TO EXECUTE AGREEMENTS FOR~~

~~(Organization)~~

~~(Title)~~

ENGINNERING FEE ESTIMATE
INWOOD/SOUTH QUORUM ACCESS FOR THE TOWN OF ADDISON

TASK NO.	DESCRIPTION	MANHOURS	COST
1	Subcontract for suvey	LS	$2,200.00
2	Revise Landmark Pl. Plan & Profile	40	$3,455.00
3	Update 100% plans and address minor comments from the Town	24	$2,075.00
4	Update Quantities & Construction Estimate	12	$990.00
5	Prepare bid documents	24	$2,075.00
6	Review signal shop drawings	8	$785.00
7	Prepare as-builts	12	$945.00
8	Project administration and management	20	$1,765.00
9	Meetings (4)	12	$1,180.00
10	Direct Expenses	LS	$230.00
TOTAL:		**152**	**$15,700.00**

MANUFACTURER'S CERTIFICATE

REFERENCED: INWOOD/SOUTH QUORUM ACCESS
ADDISON, TX.

LARRETT CONST.
KAUFMAN, TX

THIS IS TO CERTIFY THAT HANSON PIPE AND PRODUCTS IS FURNISHING TO THE ABOVE REFERENCED PROJECT THE FOLLOWING APPROXIMATE QUANTITIES OF REINFORCED CONCRETE PIPE, PRECAST BOX CULVERTS, AND PRECAST MANHOLE COMPONENTS.

707 LIN.FT. 18" RCP, CLASS III
88 LIN.FT. 18" RCP, CLASS IV
486 LIN.FT. 24" RCP, CLASS III

FURTHER, HANSON PIPE AND PRODUCTS HEREWITH CERTIFIES THAT THE ABOVE PIPE, AND ALL ADDITIONAL PIPE NEEDED TO COMPLETE JOB IS GUARANTEED TO COMPLY WITH AND IS MANUFACTURED IN ACCORDANCE WITH:

ASTM C-76, CLASS III & IV

HANSON PIPE AND PRODUCTS

BY Nick Groze

BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC OF TARRANT COUNTY, TEXAS PERSONALLY APPEARED NICK GROZE **AND SIGNED THE ABOVE CERTIFICATE AS TRUE AND CORRECT.**

HILDA C. WEARE
MY COMMISSION EXPIRES
AUGUST 10, 2004

Hilda C. Weare

NOTARY PUBLIC IN AND FOR

104 C.I. Lid

Weight – 55 Lbs.
Item# – 403042

Curb Top W/ 104 Frame

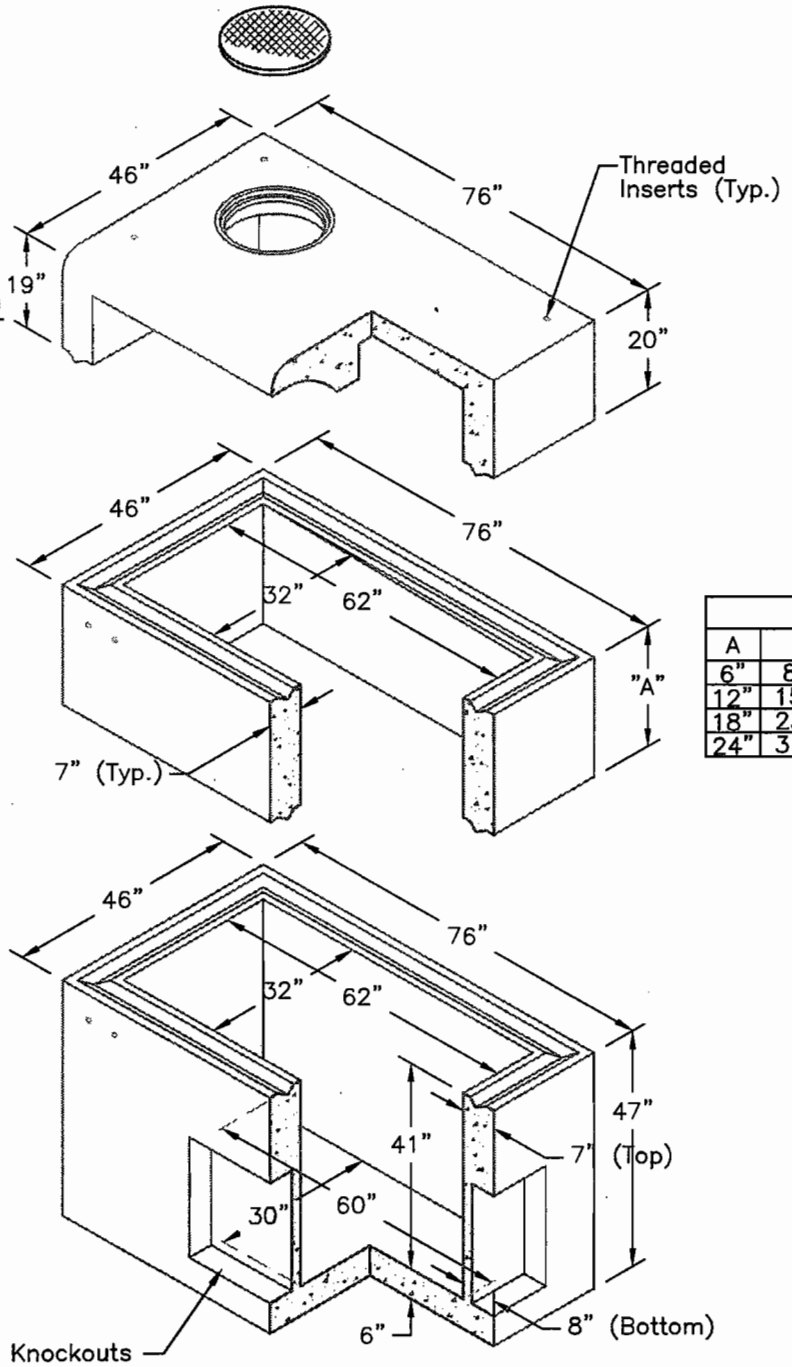
Weight – 3225 Lbs.
Item# – 008110

Extension

Weight – See Table
Item# – See Table

Bottom

Weight – 7500 Lbs.
Item# – 008160



Extension		
A	Weight	Item#
6"	800 Lbs.	008120
12"	1575 Lbs.	008130
18"	2375 Lbs.	008140
24"	3150 Lbs.	008150

SPECIFICATIONS:

1. Concrete: Concrete Has a Design Strength of 5000 PSI at 28 days.
2. Steel Reinforcement: ASTM A–615 Grade 60
3. Loading: Designed for H–20 Loading
4. C.I. Castings: ASTM A 48 CLASS 30/35

GENERAL NOTES:

1. Different Height Extensions are Avaliable on Request.
2. 104 Ring and Cover Also Available.

Oldcastle Precast®

1100 Heritage Parkway, Mansfield, Texas 76063
Phone: 817.453.1054 Fax: 817.453.4007

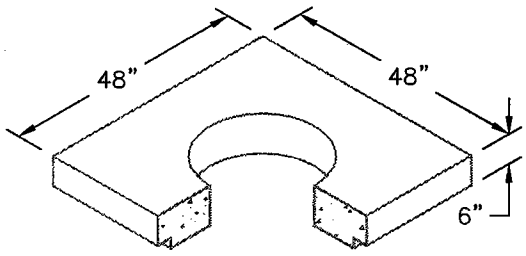
5' CURB INLET

FILE NAME: 260DII5'–CURB INLET.DWG
ISSUE DATE: August,2001
www.oldcastleprecast.com

5' Type "C" Inlet with Frame and Cover

Roof Slab W/ 24" Opening

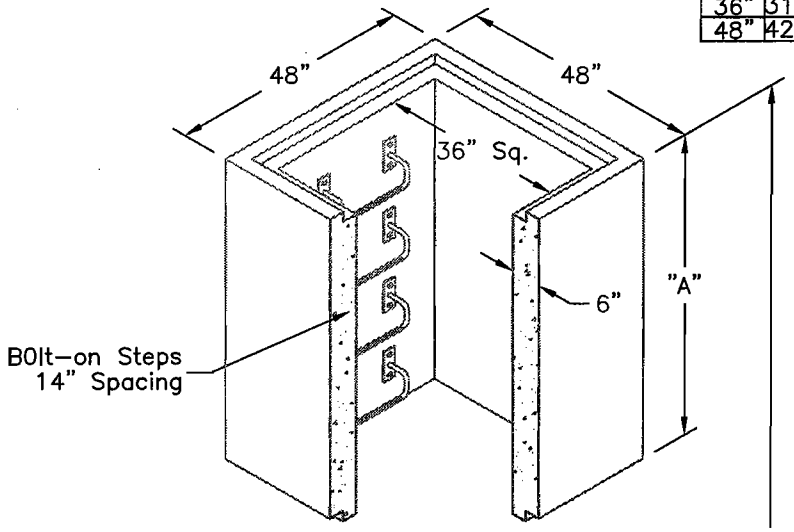
Weight – 1050 Lbs.
Item# – 010036
(See Note 1)



Extension		
A	Weight	Item #
6"	525 Lbs.	010050
12"	1050 Lbs.	010080
18"	1575 Lbs.	010150
24"	2100 Lbs.	010225
30"	2625 Lbs.	010251
36"	3150 Lbs.	010310
48"	4200 Lbs.	010430

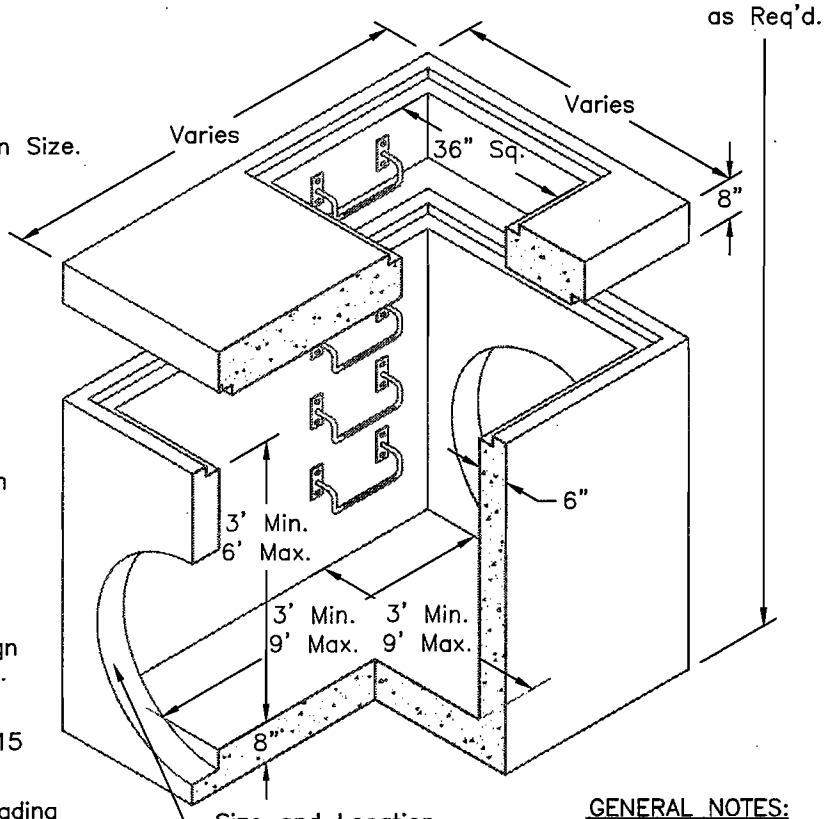
3'x3' Extension

Weight – See Table
Item# – See Table



Roof Slab

Weight – Varies Depending on Size.



Bottom

Weight – Varies Depending on Size and Height.

SPECIFICATIONS:

1. Concrete: Concrete Has a Design Strength of 5000 PSI. at 28 Days.
2. Steel Reinforcement: ASTM A–615 Grade 60
3. Loading: Designed for H–20 Loading
4. C.I. Castings: ASTM A 48 CLASS 30/35.

GENERAL NOTES:

1. Optional Opening Sizes Available.

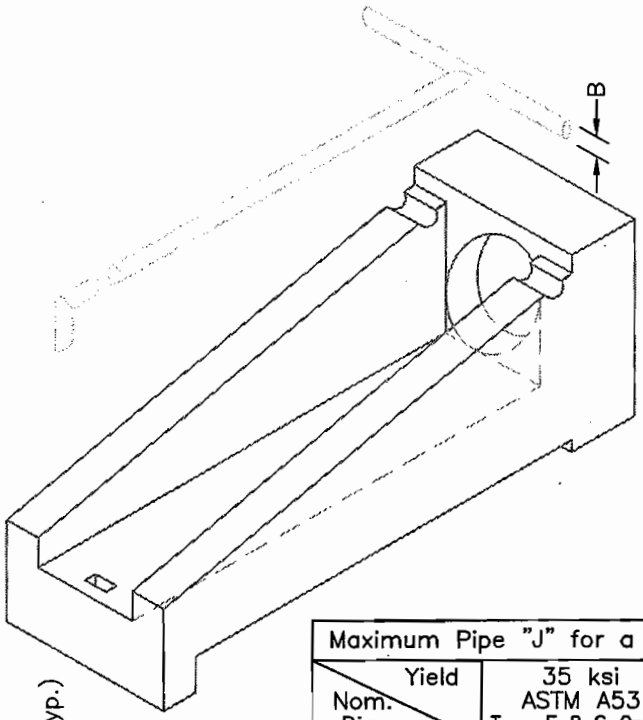
Oldcastle Precast®

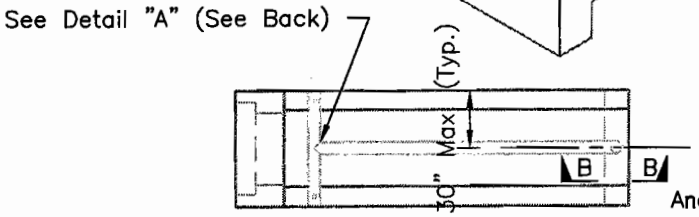
1100 Heritage Parkway, Mansfield, Texas 76063
Phone: 817.453.1054 Fax: 817.453.4007

TYPE-M-MH

FILE NAME: 260DMMTYPE–M–MH.DWG
ISSUE DATE: August,2001
www.oldcastleprecast.com

Type M-Mod. Manhole

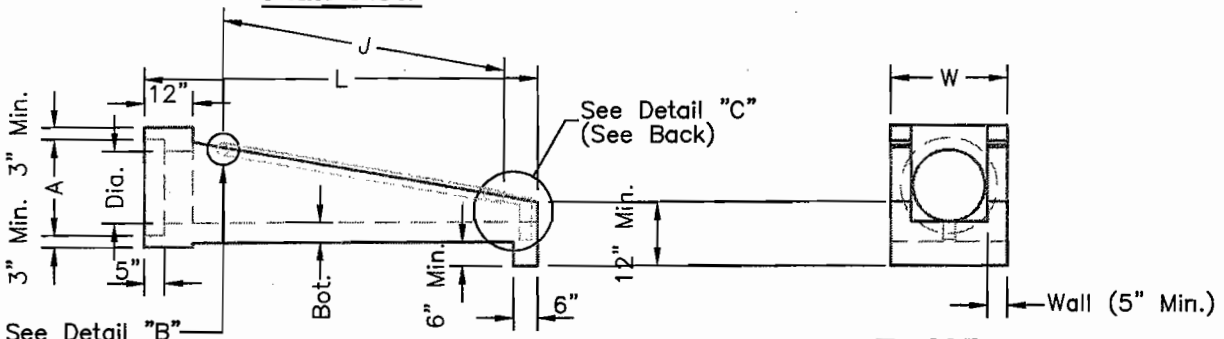




Plan View

Maximum Pipe "J" for a Given Pipe Size and Yield			
Nom. Dia. \ Yield	35 ksi ASTM A53 Type E 8 S Gr. B	42 ksi ASTM A500 Gr. B	52 ksi API5LX52
OD = 3½" 4.000"	186"	223"	276"
OD = 4" 4.500"	250"	300"	361"

Anchor Pipe May be any Above Materials and shall have an O.D. of ¼" to ⅝" Less Than the I.D. of the Safety Pipe Runners



Elevation View

End View

Pipe I.D.	Slope	Weight	W	L	J	Wall	Bot.	A	B	Item#
36"	3:1	7455 Lbs.	52"	119"	96"	6"	6"	45½"	4" O.D.	049110
	4:1	9410 Lbs.	52"	154"	130"	6"	6"	45½"	4" O.D.	049120
	6:1	13,615 Lbs.	52"	228"	203'	6"	6"	45½"	4½" O.D.	049130
42"	3:1	11,510 Lbs.	61"	143"	117"	8"	6"	53"	4" O.D.	049140
	4:1	15,010 Lbs.	61"	186"	156"	8"	6"	53"	4" O.D.	049150
	6:1	23,895 Lbs.	61"	276"	246'	8"	6"	53"	4½" O.D.	049160

SPECIFICATIONS:

1. Concrete: Concrete Has a Design Strength of 5000 PSI at 28 Days.
2. Steel Reinforcement: ASTM A-615 Grade 60
3. Loading: Designed for H-20 Loading
4. C.I. Castings: ASTM A 48 Class 30/35

GENERAL NOTES:

1. Class "C" Concrete
2. All Exposed Corners shall be Chamfered ¾".

SCALE: 1/4" = 1'-0"

Oldcastle Precast®

1100 Heritage Parkway, Mansfield, Texas 76063
Phone: 817.453.1054 Fax: 817.453.4007

TYP-C-SET

FILE NAME: 260DPTTYP-C-SET.DWG

ISSUE DATE: August,2001

www.oldcastleprecast.com

Type "C" Safety-End-Treatment Variable (See Chart)

Site Development Engineering, Inc

DALLAS, TEXAS

INWOOD SOUTH QUORUM

STORM DRAINAGE IMPROVEMENTS

TRENCH SAFETY PLAN

For

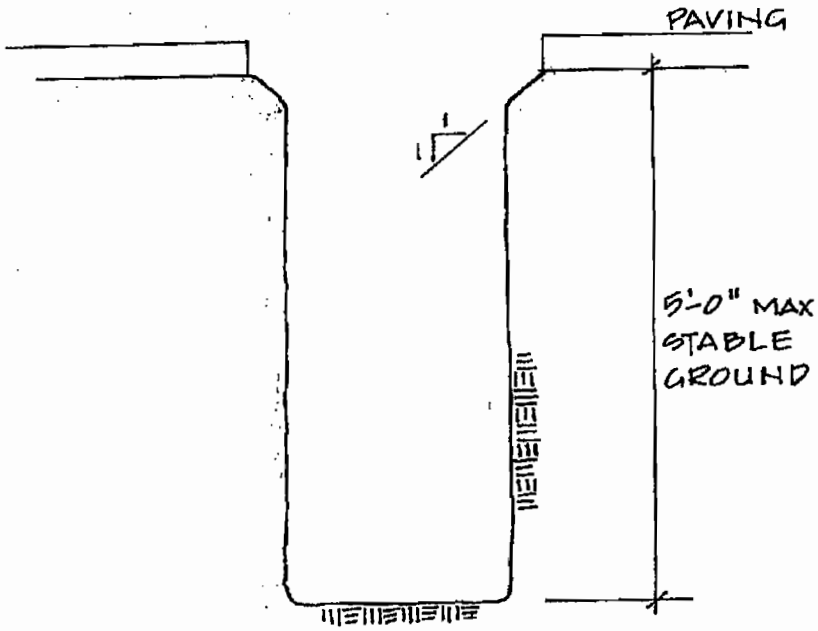
Larrett, Inc

SD03-105

11782 Jollyville Road Austin, Texas phone 512-219-4052 FAX 219-4057

Site Development Engineering, Inc

INWOOD SOUTH QUORUM – DALLAS, TEXAS – STROM DRAINAGE IMPROVEMENTS



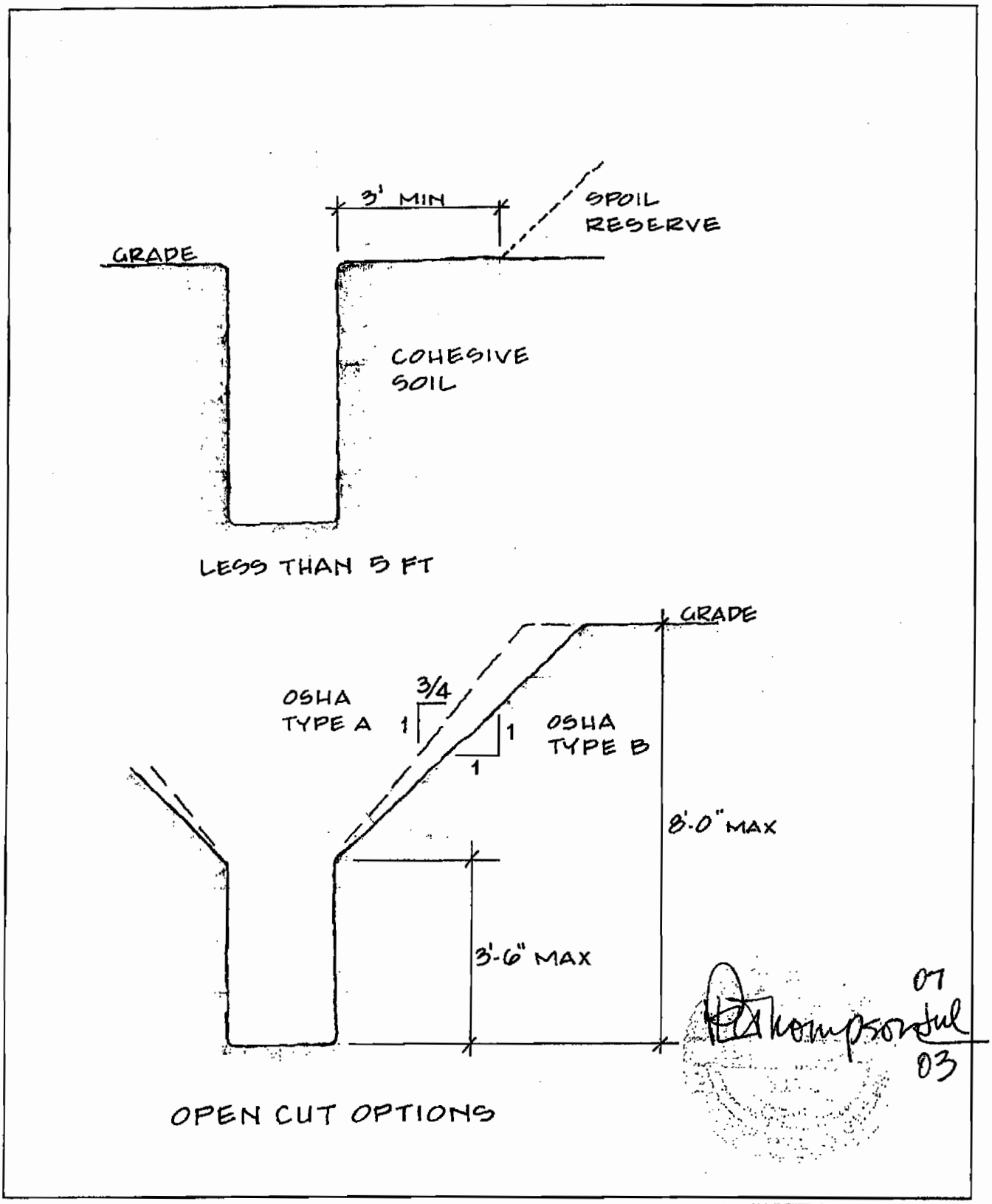
OPEN CUT

07
03

TRENCH SAFETY PLAN
Larrett, Inc
SD03-105

Site Development Engineering, Inc

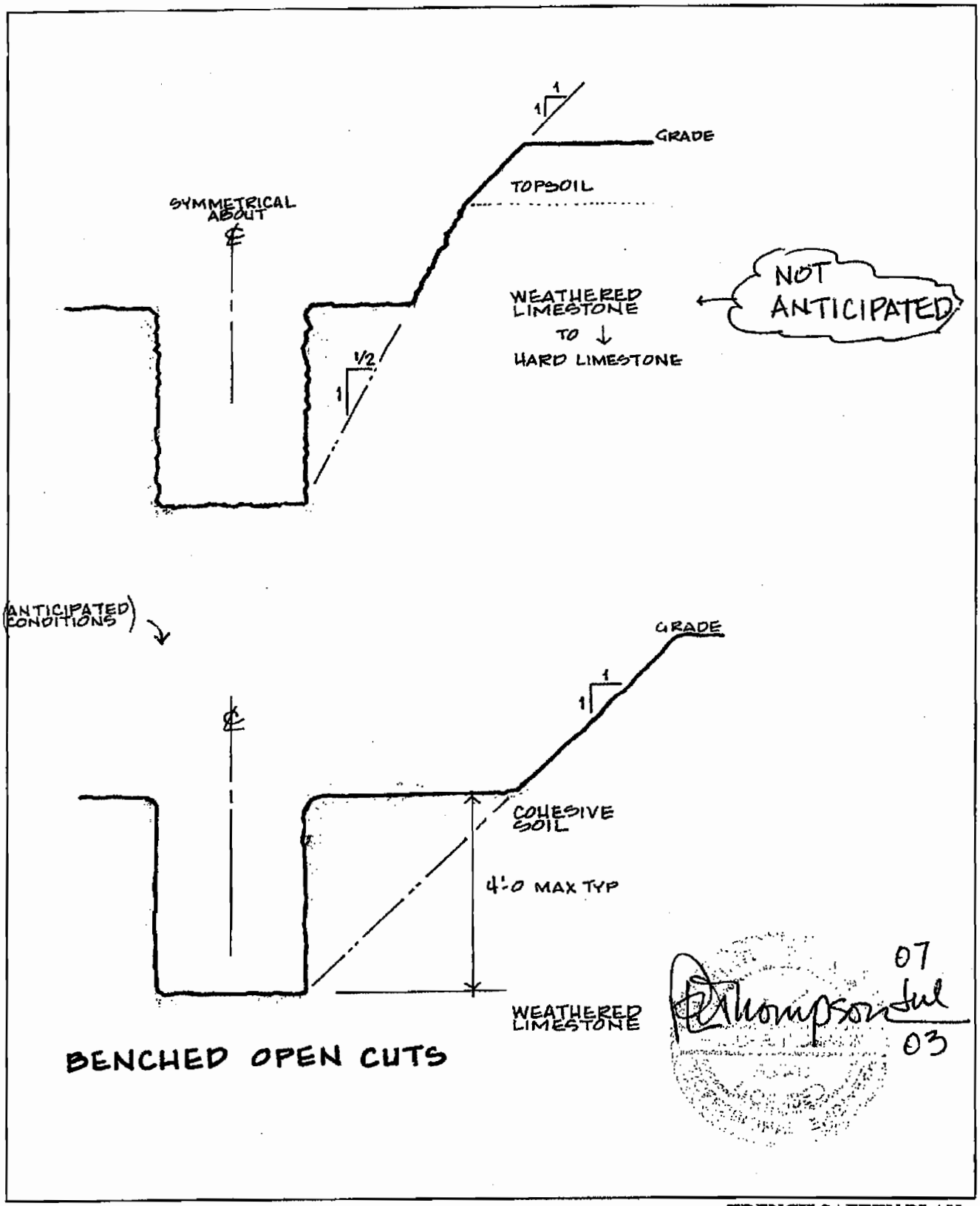
INWOOD SOUTH QUORUM – DALLAS, TEXAS – STROM DRAINAGE IMPROVEMENTS



TRENCH SAFETY PLAN
Larrett, Inc
SD03-105

Site Development Engineering, Inc

INWOOD SOUTH QUORUM – DALLAS, TEXAS – STROM DRAINAGE IMPROVEMENTS



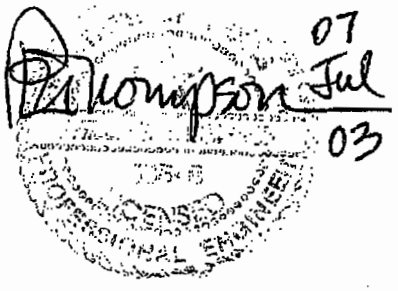
TRENCH SAFETY PLAN
Larrett, Inc
SD03-105

Site Development Engineering, Inc

INWOOD SOUTH QUORUM – DALLAS, TEXAS – STROM DRAINAGE IMPROVEMENTS

GENERAL NOTES

1. The details on this submittal are prepared in compliance with Federal Department of Labor Occupational Safety and Health Administration (OSHA) 2226 Federal Register 29 CFR Part 1926, Subpart P titled Excavations, Trenching and Shoring.
2. Recommendations and details on this submittal are for the referenced site and project specifically and are not for reuse.
3. Slope recommendations, unless noted, are for short term cuts in soil. Short term under this submittal shall mean 24 hours or less. When the contractor must use open cut slopes for longer periods, the slope shall be cut eight (8) degrees less incline from the horizontal than shown on the drawing included with this Trench Safety Plan. Shored cuts are not included under the short-term restrictions.
4. Ground water and surface drainage management, during construction are the responsibility of the contractor. In the event ground water and the resulting unstable conditions are encountered, **Site Development Engineering, Inc shall be called** to determine if modification to this submittal is required **512-219-4052** or **512-497-1147**.
5. Trench shield or shoring with sheeting shall be used for vertical cut trenches more than 5 ft depth when made in non-cohesive earth.
6. The method of trench protection used shall be as shown on the attached detail sheet(s). Sheeting shall be equal to the hardwood plywood as manufactured by Shor Form. Spacing between shoring frames shall not exceed eight (8) feet on center for cohesive soils. If conditions are encountered which require sheeting, the spacing shall be reduced to four (4) ft on center.
7. Contractor shall place ladders in trenches deeper than four (4) ft such that no more than 25 feet of lateral travel is required for a person in the excavation to reach a ladder for egress.
8. Periodic inspections of the site are to be made by the contractor's qualified representative (meeting Competent Person requirements under OSHA). These inspections shall be made daily or more frequently as conditions indicate is needed.
9. Shoring methods shown on this Trench Safety Plan are intended to be options available to the Contractor. More than one method may apply at a given location. The limitations, for each method, are given with that graphic presentation.



TRENCH SAFETY PLAN
Larrett, Inc
SD03-105

After Recording Return To:
Angela K. Washington
Cowles & Thompson, P.C.
901 Main Street, Suite 4000
Dallas, Texas 75202

TOWN OF ADDISON

DRAINAGE EASEMENT

STATE OF TEXAS §
§ **KNOW ALL MEN BY THESE PRESENTS:**
COUNTY OF DALLAS §

That Friday Morning, Inc., hereinafter referred to as **Grantor**, for and in consideration of the sum of **Ten and no/100 ($10.00)** and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, does by these presents grant, sell and convey unto the **Town of Addison** of the County of Dallas, State of Texas, its successors and assigns, hereinafter termed **Grantee**, a perpetual easement and right-of-way in, under, over, along and across the property described in attached **Exhibit A** (Field Note Description for DE-7) and depicted on attached **Exhibit B**, both of which exhibits are attached hereto and made a part hereof for all purposes.

This easement and right-of-way with all rights and privileges hereby granted may be used for the purpose of constructing, operating, repairing, reconstructing and perpetually maintaining storm drainage facilities in, over, through and under the premises hereinabove described. **Grantee**, its employees, agents, and licensees shall at all times have the right and privilege to access the perpetual easement herein granted. **Grantor** agrees not to construct or place within the premises described above any buildings, fences, shrubs, trees or other improvements, without the prior written consent of **Grantee**.

To have and to hold the same, together with all and singular the rights and hereditaments thereunto in anywise belonging unto **Grantee**, its successors and assigns, for the purposes of the perpetual easement herein granted.

And **Grantor** hereby binds itself, its heirs, executors, agents and assigns to warrant and defend all and singular the above described easement and rights unto **Grantee**, its successors and assigns, against every person whosoever lawfully claiming or to claim the same or any part thereof.

EXECUTED this _____ day of _____, 2003.

FRIDAY MORNING, INC.

By _____

Print Name _____

Title _____

STATE OF TEXAS §
COUNTY OF DALLAS §

BEFORE ME, the undersigned notary public in and for said county and state, on this _____ day of _____, 2003, personally appeared _____, _____ on behalf of Friday Morning, Inc., a Texas business corporation, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person or entity upon behalf of which he acted executed the instrument for the uses and purposes therein set forth.

GIVEN UNDER my hand and seal of office the day and year last above written.

_____
Notary Public in and for the State of Texas

MY COMMISSION EXPIRES:

_____

[S E A L]

EXHIBIT "A"

COUNTY:	DALLAS
ROADWAY:	SOUTH QUORUM/INWOOD CONNECTION
6' DRAINAGE EASEMENT:	DE-7

DRAINAGE EASEMENT NO. DE-7

BEING a 120 square foot tract of land situated in the Town of Addison, Dallas County, Texas in the Josiah Pancoast Survey, Abstract No. 1146, and being part of Lot 3 Inwood Park North Addition, recorded in Volume 79234, Page 0001 Plat Records of Dallas County, Texas, and being more particularly described as follows:

COMMENCING at found ½ inch iron rod at the Northeast corner of said Lot 3, West of Right-of-Way line of Inwood Road (a 60 foot Right-of-Way at this point);

THENCE South 17°01'00" East along the said West Right-of-Way of Inwood Road, a distance of 111.82 feet to a point for the Northeast corner of subject drainage easement. Herein describe for the POINT OF BEGINNING;

THENCE South 17°01'00" East along said West Right-of-Way, a distance of 20.00 feet to a point for corner;

THENCE South 72°59'00" West departing said West Right-of-Way, a distance of 6.00 feet to a point for a corner;

THENCE North 17°01'00" West, parallel to and 6.00 feet from said West Right-of-Way, a distance of 20.00 feet to a point for a corner;

THENCE North 72°59'00" East, a distance of 6.00 feet to the POINT OF BEGINNING and containing 120 square feet or 0.0028 acres of land, more or less.

Donald R. Howard 11/11/00

Donald R. Howard, P.E., R.P.L.S.
Registered Professional Land Surveyor
Texas Registration No. 2812

After Recording Return To:
Angela K. Washington
Cowles & Thompson, P.C.
901 Main Street, Suite 4000
Dallas, Texas 75202

TOWN OF ADDISON

DRAINAGE EASEMENT

STATE OF TEXAS §
§ **KNOW ALL MEN BY THESE PRESENTS:**
COUNTY OF DALLAS §

That Friday Morning, Inc., hereinafter referred to as **Grantor**, for and in consideration of the sum of **Ten and no/100 ($10.00)** and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, does by these presents grant, sell and convey unto the **Town of Addison** of the County of Dallas, State of Texas, its successors and assigns, hereinafter termed **Grantee**, a perpetual easement and right-of-way in, under, over, along and across the property described in attached **Exhibit A** (Field Note Description for DE-6) and depicted on attached **Exhibit B**, both of which exhibits are attached hereto and made a part hereof for all purposes.

This easement and right-of-way with all rights and privileges hereby granted may be used for the purpose of constructing, operating, repairing, reconstructing and perpetually maintaining storm drainage facilities in, over, through and under the premises hereinabove described. **Grantee**, its employees, agents, and licensees shall at all times have the right and privilege to access the perpetual easement herein granted. **Grantor** agrees not to construct or place within the premises described above any buildings, fences, shrubs, trees or other improvements, without the prior written consent of **Grantee.**

To have and to hold the same, together with all and singular the rights and hereditaments thereunto in anywise belonging unto **Grantee**, its successors and assigns, for the purposes of the perpetual easement herein granted.

And **Grantor** hereby binds itself, its heirs, executors, agents and assigns to warrant and defend all and singular the above described easement and rights unto **Grantee**, its successors and assigns, against every person whosoever lawfully claiming or to claim the same or any part thereof.

EXECUTED this _____ day of _____, 2003.

FRIDAY MORNING, INC.

By _____

Print Name _____

Title _____

STATE OF TEXAS §
COUNTY OF DALLAS §

BEFORE ME, the undersigned notary public in and for said county and state, on this _____ day of _____, 2003, personally appeared _____, _____ on behalf of Friday Morning, Inc., a Texas business corporation, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person or entity upon behalf of which he acted executed the instrument for the uses and purposes therein set forth.

GIVEN UNDER my hand and seal of office the day and year last above written.

_____
Notary Public in and for the State of Texas

MY COMMISSION EXPIRES:

_____

[SEAL]

EXHIBIT "A"

COUNTY:	DALLAS
ROADWAY:	SOUTH QUORUM/INWOOD CONNECTION
6' DRAINAGE EASEMENT:	DE - 6

DRAINAGE EASEMENT NO. **DE - 6**

BEING a 243 square foot tract of land situated in the Town of Addison, Dallas County, Texas in the Josiah Pancoast Survey, Abstract No. 1146, and being part of Inwood Park North Addition, an addition to the Town of Addison, Dallas County, Texas Recorded In Volume 79234, Page 0001 Plat Records of Dallas County, Texas, and being more particularly described as follows:

COMMENCING at a found ½ inch iron rod at the Northeast corner of said Lot 3, said point also being on the West Right-Of-Way Line of Inwood Road, (a 60 foot Right-of-Way at this point);

THENCE, South 17°01'00" East, along the West Right-of-Way of Inwood Road, a distance of 309.79 feet to the POINT OF BEGINNING;

THENCE, South 17°01'00" East, along West Right-of-Way of Inwood Road, a distance of 41.35 feet to a point for corner, said point being on Southeast corner of said Lot 3;

THENCE South 89°37'46" West, departing said Right-of-Way of Inwood Road and along the South line of said Lot 3, a distance of 6.26 feet to a point for a corner;

THENCE North 17°01'00" West, parallel to and 6.00 feet from said West Right-of-Way of Inwood Road, a distance of 39.56 feet to a point for a corner;

THENCE North 72°59'00" East, a distance of 6.00 feet to the POINT OF BEGINNING and containing 243 square feet or 0.0056 acres of land, more or less.

Donald R. Howard 11/11/00

Donald R. Howard, P.E., R.P.L.S.
Registered Professional Land Surveyor
Texas Registration No. 2812

After Recording Return To:
Angela K. Washington
Cowles & Thompson, P.C.
901 Main Street, Suite 4000
Dallas, Texas 75202

TOWN OF ADDISON

DRAINAGE EASEMENT

STATE OF TEXAS §
§ **KNOW ALL MEN BY THESE PRESENTS:**
COUNTY OF DALLAS §

That Friday Morning, Inc., hereinafter referred to as **Grantor**, for and in consideration of the sum of **Ten and no/100 ($10.00)** and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, does by these presents grant, sell and convey unto the **Town of Addison** of the County of Dallas, State of Texas, its successors and assigns, hereinafter termed **Grantee**, a perpetual easement and right-of-way in, under, over, along and across the property described in attached **Exhibit A** (Field Note Description for DE-5) and depicted on attached **Exhibit B**, both of which exhibits are attached hereto and made a part hereof for all purposes.

This easement and right-of-way with all rights and privileges hereby granted may be used for the purpose of constructing, operating, repairing, reconstructing and perpetually maintaining storm drainage facilities in, over, through and under the premises hereinabove described. **Grantee**, its employees, agents, and licensees shall at all times have the right and privilege to access the perpetual easement herein granted. **Grantor** agrees not to construct or place within the premises described above any buildings, fences, shrubs, trees or other improvements, without the prior written consent of **Grantee**.

To have and to hold the same, together with all and singular the rights and hereditaments thereunto in anywise belonging unto **Grantee**, its successors and assigns, for the purposes of the perpetual easement herein granted.

And **Grantor** hereby binds itself, its heirs, executors, agents and assigns to warrant and forever defend all and singular the above described easement and rights unto **Grantee**, its successors and assigns, against every person whosoever lawfully claiming or to claim the same or any part thereof.

EXECUTED this _____ day of _____, 2003.

FRIDAY MORNING, INC.

By _____

Print Name _____

Title _____

STATE OF TEXAS §
COUNTY OF DALLAS §

BEFORE ME, the undersigned notary public in and for said county and state, on this _____ day of _____, 2003, personally appeared _____, _____ on behalf of Friday Morning, Inc., a Texas business corporation, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person or entity upon behalf of which he acted executed the instrument for the uses and purposes therein set forth.

GIVEN UNDER my hand and seal of office the day and year last above written.

_____
Notary Public in and for the State of Texas

MY COMMISSION EXPIRES:

_____

[S E A L]

EXHIBIT "A"

COUNTY:	DALLAS
ROADWAY:	SOUTH QUORUM/INWOOD CONNECTION
6' DRAINAGE EASEMENT:	DE-5

DRAINAGE EASEMENT NO. **DE - 5**

BEING a 332 square foot tract of land situated in the Town of Addison, Dallas County, Texas in the Josiah Pancoast Survey, Abstract No. 1146, and being part of Lot 1 of Inwood Park North Addition recorded in Volume 79234 Page 0001 Plat Records of Dallas County, Texas, and being more particularly described as follows:

COMMENCING at found 5/8 inch iron rod at the Southeast corner of said Lot 1 and West Right-of-Way line of Inwood Road (a 60 foot Right-of-Way at this point);

THENCE North 17°01'00" West, along the said Right-of-Way of Inwood Road, a distance of 264.67 feet to a point for the southeast corner of subject drainage easement. Herein describe for the POINT OF BEGINNING;

THENCE South 72°59'00" West departing said West Right-of-Way, a distance of 6.00 feet to a point for corner;

THENCE North 17°01'00" West parallel to and 6.00 feet from said West Right-of-Way, a distance of 56.25 feet to a point for a corner, said point being on the South Right-of-Way line of a 50.00 foot wide access of utility and drainage easement. Dedicated to the Town of Addison as part of this subject addition;

THENCE North 89°37'46" East along South Right-of-Way line of said 50.00 feet easement, a distance of 6.26 feet to found ½ inch iron rod for corner, said point being on the West Right-of-Way of said Inwood Road;

THENCE South 17°01'00" East along West Right-of-Way of Inwood Road a distance of 54.46 feet to the POINT OF BEGINNING and containing 332 square feet or 0.0076 acres of land, more or less.

Donald R. Howard 11/11/00

Donald R. Howard, P.E., R.P.L.S.
Registered Professional Land Surveyor
Texas Registration No. 2812

SCALE : 1" = 100'

0 50 100 200 300

LINE TABLE

NO.	BEARING	DIST.
1	S17°01'00"E	41.35'
2	S89°37'46"W	6.26'
3	N17°01'00"W	39.57'
4	N72°59'00"E	6.00'

EXHIBIT "B"

COUNTY : DALLAS
ROADWAY : SOUTH QUORUM/INWOOD CONNECTION
PARCEL : DRAINAGE ESM'T. (DE-6)

Donald R. Howard 11/11/00

DONALD R. HOWARD
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REG. NO. 2812

STATE OF TEXAS REGISTERED DONALD R. HOWARD 2812 PROFESSIONAL LAND SURVEYOR

TOWN OF ADDISON

PAGE OF

QUORUM ADDITION
BLOCK 3
V. 79100, P. 1895 DRDCT
D.R.D.C.T.

QUORUM WEST ADDITION
BLOCK 3
V. 81005, P. 1454 DRDCT
D.R.D.C.T.

TOWN OF ADDISON
CITY OF FARMERS BRANCH

20' DRAIN. & UTIL ESMT.

10" WATER MAIN ESMT.

426.55'

FIR 1/2"

LOT 1, BLOCK 1

ANDERSON & WHITE ADDITION
V. 953, P. 895 PRDCT

LOT 2, BLOCK 1

64'

PARCEL 4

PARCEL 6

PARCEL 5

D. P. & L. CO. R.O.W.
(V. 4617, P. 375)

100'

METAL ELEC. POLE

INLET

JOSIAH PANCOAST SURVEY
ABSTRACT NO. 1146

LANDMARK BOULEVARD

N17°01'00"W

ST. LOUIS & SOUTHWESTERN
RAILWAY COMPANY

100'

TOWN OF ADDISON
CITY OF FARMERS BRANCH

ST. LOUIS & SOUTHWESTERN
RAILWAY COMPANY

INWOOD ROAD

POINT OF BEGINNING

N17°01'00"W

INWOOD ROAD

IRF 1/2"

S17°01'00"E 309.79'

L1

IRF 1/2"

IRF 5/8"

POINT OF COMMENCING

L4

L3

L2

DE-6
(243 S.F.)

S89°37'46"E 224.42'

PL.

INWOOD PARK NORTH ADD'N.
LOT 3
VOL. 79234, PG. 0001

S89°37'46"E 224.42'

PL.

LOT 1.1

50' ACCESS, UTILITY & DRAINAGE ESM'T.

INWOOD PARK NORTH ADD'N.
LOT 1
VOL. 79234, PG. 0001

JOSIAH PANCOAST SURVEY
ABSTRACT NO. 1146

S9°27'00"E 97.88'

S17°01'00"E 216.67'

PL.

EXHIBIT "B"

COUNTY : DALLAS
ROADWAY : SOUTH QUORUM/INWOOD CONNECTION
PARCEL : DRAINAGE ESM'T. (DE-5)

Donald R. Howard 11/11/00
DONALD R. HOWARD
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REG. NO. 2812

STATE OF TEXAS REGISTERED DONALD R. HOWARD 2812 PROFESSIONAL LAND SURVEYOR

TOWN OF ADDISON

PAGE OF

SCALE : 1" = 100'

0 50 100 200 300

LINE TABLE

NO.	BEARING	DIST.
1	S72°59'00"W	6.00'
2	N17°01'00"W	56.25'
3	N89°37'46"E	6.26'
4	S17°01'00"E	54.46'

JOSIAH PANCOAST SURVEY ABSTRACT NO. 1146

LANDMARK BOULEVARD

QUORUM ADDITION
BLOCK 3
V. 79100, P. 1895 DRDCT
D.R.D.C.T.

QUORUM WEST ADDITION
BLOCK 3
V. 81005, P. 1454 DRDCT
D.R.D.C.T.

20' DRAIN. & UTIL ESMT.

10' WATER MAIN ESMT.

TOWN OF ADDISON
CITY OF FARMERS BRANCH

426.55'

FIR 1/2"

LOT 1, BLOCK 1

ANDERSON & WHITE ADDITION
V. 953, P. 895 PRDCT

LOT 2, BLOCK 1

64'

PARCEL 4

PARCEL 5

PARCEL 6

D. P. & L. CO. R.O.W.
(V. 4617, P. 375)

100'

METAL ELEC. INLET POLE

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

N17°01'00"W

100'

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

N17°01'00"W

INWOOD ROAD

POINT OF BEGINNING

IRF1/2"

IRF1/2"

L4

L3

L2

L1

N17°01'00"W
264.67'

IRF5/8"

INWOOD ROAD

TOWN OF ADDISON
CITY OF FARMERS BRANCH

POINT OF COMMENCING

DE-5
(332 S.F.)

LOT 1.1

PL

50' ACCESS, UTILITY & DRAINAGE ESM'T.

N89°37'46"W
200.40'

INWOOD PARK NORTH ADD'N.
LOT 3
VOL. 79234, PG. 0001

INWOOD PARK NORTH ADD'N.
LOT 1
VOL. 79234, PG. 0001

N89°37'46"W
200.40'

PL

N17°01'00"W
319.13'

JOSIAH PANCOAST SURVEY ABSTRACT NO. 1146

P:\6470\DWG\ADDPARCELS.E-5.DWG DATE: 11-13-2000

MARK JARVIS

TUESDAY MORNING

972-934-7251

~~MIDDLE AFTERNOON~~

WHEN FINAL PLANS ARE RECEIVED,

SEND COPIES TO FARMERS BRANCH FOR REVIEW & GIVE A COPY TO THE RAILROAD & HAVE A COORDINATION MTG.

COWLES & THOMPSON
A Professional Corporation
ATTORNEYS AND COUNSELORS

ANGELA K. WASHINGTON
214.672.2144
AWASHINGTON@COWLESTHOMPSON.COM

February 21, 2003

VIA FACSIMILE (214) 855-8898
AND VIA REGULAR U.S. MAIL

Ms. Janine Barber
Republic Title Company
2626 Howell Street, 10th Floor
Dallas, Texas 75204

RE: South Quorum/Inwood Road Connection Project
Parcels 5 and 6

Dear Janine:

Enclosed are property descriptions for two parcels of land in connection with the above-referenced Town of Addison project. Please prepare title commitments for both parcels. The Town is most anxious to close the transactions involving these parcels. Thus, I would appreciate your expediting this matter if possible.

Sincerely,

Angela K. Washington

AKW/yjr
Enclosures

c(w/o Enclosures): Mr. Steve Chutchian, w/Town
Mr. Ken Dippel, w/firm

901 MAIN STREET SUITE 4000 DALLAS, TEXAS 75202 3793
TEL 214.672.2000 FAX 214.672.2020
WWW.COWLESTHOMPSON.COM

EXHIBIT "A"

COUNTY:	DALLAS
ROADWAY:	SOUTH QUORUM/INWOOD CONNECTION
6' DRAINAGE EASEMENT:	DE - 6

DRAINAGE EASEMENT NO. **DE - 6**

BEING a 243 square foot tract of land situated in the Town of Addison, Dallas County, Texas in the Josiah Pancoast Survey, Abstract No. 1146, and being part of Inwood Park North Addition, an addition to the Town of Addison, Dallas County, Texas Recorded In Volume 79234, Page 0001 Plat Records of Dallas County, Texas, and being more particularly described as follows:

COMMENCING at a found ½ inch iron rod at the Northeast corner of said Lot 3, said point also being on the West Right-Of-Way Line of Inwood Road, (a 60 foot Right-of-Way at this point);

THENCE, South 17°01'00" East, along the West Right-of-Way of Inwood Road, a distance of 309.79 feet to the POINT OF BEGINNING;

THENCE, South 17°01'00" East, along West Right-of-Way of Inwood Road, a distance of 41.35 feet to a point for corner, said point being on Southeast corner of said Lot 3;

THENCE South 89°37'46" West, departing said Right-of-Way of Inwood Road and along the South line of said Lot 3, a distance of 6.26 feet to a point for a corner;

THENCE North 17°01'00" West, parallel to and 6.00 feet from said West Right-of-Way of Inwood Road, a distance of 39.56 feet to a point for a corner;

THENCE North 72°59'00" East, a distance of 6.00 feet to the POINT OF BEGINNING and containing 243 square feet or 0.0056 acres of land, more or less.

Donald R. Howard 11/11/05

Donald R. Howard, P.E., R.P.L.S.
Registered Professional Land Surveyor
Texas Registration No. 2812

SCALE : 1" = 100'

0 50 100 200 300

LINE TABLE

NO.	BEARING	DIST.
1	S17°01'00"E	41.35'
2	S89°37'46"W	6.26'
3	N17°01'00"W	39.57'
4	N72°59'00"E	6.00'

EXHIBIT "B"

COUNTY : DALLAS
ROADWAY : SOUTH QUORUM/INWOOD CONNECTION
PARCEL : **DRAINAGE ESM'T. (DE-6)**

Donald R. Howard 11/11/00

DONALD R. HOWARD
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REG. NO. 2812

STATE OF TEXAS REGISTERED DONALD R. HOWARD 2812 PROFESSIONAL LAND SURVEYOR

TOWN OF ADDISON

PAGE OF

QUORUM ADDITION
BLOCK 3
V. 79100, P. 1895 DRDCT
D.R.D.C.T.

TOWN OF ADDISON
CITY OF FARMERS BRANCH

20' DRAIN. & UTIL. ESMT.
10' WATER MAIN ESMT.
426.55'
FIR 1/2"

LOT 1, BLOCK 1

ANDERSON & WHITE ADDITION
V. 953, P. 895 PRDCT

LOT 2, BLOCK 1

QUORUM WEST ADDITION
BLOCK 3
V. 81005, P. 1454 DRDCT
D.R.D.C.T.

JOSIAH PANCOAST SURVEY
ABSTRACT NO. 1146

LANDMARK BOULEVARD

64'

PARCEL 4

PARCEL 6

PARCEL 5

D. P. & L. CO. R.O.W.
(V. 4617, P. 375)

100'

METAL ELEC. POLE

INLET

N17°01'00"W

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

100'

TOWN OF ADDISON
CITY OF FARMERS BRANCH

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

INWOOD ROAD

POINT OF BEGINNING

N17°01'00"W

INWOOD ROAD

IRF 1/2"

S17°01'00"E 309.79'

L1

L4

L3

L2

IRF 1/2"

IRF 5/8"

POINT OF COMMENCING

DE-6
(243 S.F.)

S89°37'46"E 224.42'

PL

INWOOD PARK NORTH ADD'N.
LOT 3
VOL. 79234, PG. 0001

S89°37'46"E 224.42'

PL

50' ACCESS, UTILITY & DRAINAGE ESM'T.

LOT 1,1

PL

INWOOD PARK NORTH ADD'N.
LOT 1
VOL. 79234, PG. 0001

JOSIAH PANCOAST SURVEY
ABSTRACT NO. 1146

S9°27'00"E 97.88'

S17°01'00"E 216.67'

PL

EXHIBIT "A"

COUNTY: DALLAS
ROADWAY: SOUTH QUORUM/INWOOD CONNECTION
6' DRAINAGE EASEMENT: DE-7

DRAINAGE EASEMENT NO. DE-7

BEING a 120 square foot tract of land situated in the Town of Addison, Dallas County, Texas in the Josiah Pancoast Survey, Abstract No. 1146, and being part of Lot 3 Inwood Park North Addition, recorded in Volume 79234, Page 0001 Plat Records of Dallas County, Texas, and being more particularly described as follows:

COMMENCING at found ½ inch iron rod at the Northeast corner of said Lot 3, West of Right-of-Way line of Inwood Road (a 60 foot Right-of-Way at this point);

THENCE South 17°01'00" East along the said West Right-of-Way of Inwood Road, a distance of 111.82 feet to a point for the Northeast corner of subject drainage easement. Herein describe for the POINT OF BEGINNING;

THENCE South 17°01'00" East along said West Right-of-Way, a distance of 20.00 feet to a point for corner;

THENCE South 72°59'00" West departing said West Right-of-Way, a distance of 6.00 feet to a point for a corner;

THENCE North 17°01'00" West, parallel to and 6.00 feet from said West Right-of-Way, a distance of 20.00 feet to a point for a corner;

THENCE North 72°59'00" East, a distance of 6.00 feet to the POINT OF BEGINNING and containing 120 square feet or 0.0028 acres of land, more or less.

Donald R. Howard 11/11/00

Donald R. Howard, P.E., R.P.L.S.
Registered Professional Land Surveyor
Texas Registration No. 2812

SCALE : 1" = 100'

0 50 100 200 300

LINE TABLE

NO.	BEARING	DIST.
1	S17°01'00"E	20.00'
2	S72°59'00"W	6.00'
3	N17°01'00"W	20.00'
4	N72°59'00"E	6.00'

EXHIBIT "B"

COUNTY : DALLAS
ROADWAY : SOUTH QUORUM/INWOOD CONNECTION
PARCEL : DRAINAGE ESM'T. (DE-7)

Donald R. Howard 11/14/00

DONALD R. HOWARD
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REG. NO. 2812

STATE OF TEXAS REGISTERED DONALD R. HOWARD 2812 PROFESSIONAL LAND SURVEYOR

TOWN OF ADDISON

PAGE OF

JOSIAH PANCOAST SURVEY ABSTRACT NO. 1146

LANDMARK BOULEVARD

QUORUM ADDITION
BLOCK 3
V. 79100, P. 1895 DRDCT
D.R.D.C.T.

QUORUM WEST ADDITION
BLOCK 3
V. 81005, P. 1454 DRDCT
D.R.D.C.T.

TOWN OF ADDISON
CITY OF FARMERS BRANCH

20' DRAIN. & UTIL. ESMT.

10' WATER MAIN ESMT.

426.55'

LOT 1, BLOCK 1

ANDERSON & WHITE ADDITION
V. 953, P. 895 PRDCT

LOT 2, BLOCK 1

64'

PARCEL 4

PARCEL 5

PARCEL 6

D. P. & L. CO. R.O.W.
(V. 4617, P. 375)

100'

D.I. METAL ELEC. INLET POLE

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

N17°01'00"W

100'

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

N17°01'00"W

POINT OF BEGINNING

INWOOD ROAD

IRF 1/2"

S17°01'00"E 111.82'

L1

L2

L3

L4

DE-7 (120 S.F.)

IRF 1/2"

IRF 5/8"

POINT OF COMMENCING

S80°32'56"W 216.67'

PL

S9°27'00"E 97.88'

S17°01'00"E 216.67'

PL

S89°37'46"E 224.42'

PL

50' ACCESS, UTILITY & DRAINAGE ESMT.

LOT 1.1

PL

PL

PL

INWOOD PARK NORTH ADD'N.
LOT 3
VOL. 79234, PG. 0001

INWOOD PARK NORTH ADD'N.
LOT 1
VOL. 79234, PG. 0001

TOWN OF ADDISON
CITY OF FARMERS BRANCH

JOSIAH PANCOAST SURVEY
ABSTRACT NO. 1146

TOWN OF ADDISON®

PUBLIC WORKS DEPARTMENT
Post Office Box 9010 Addison, Texas 75001-9010

(972) 450-2871 FAX (972) 450-2837
16801 Westgrove

September 24, 2002

Kyle Bowman
TXU Gas
301 S. Harwood
6th floor south
Dallas, Texas 75201

Re: Inwood/S. Quorum, Phase II

Dear Mr. Bowman:

The Town of Addison has completed engineering design of the Inwood/ S. Quorum, Phase II project. These improvements will provide a new rail crossing and associated drainage improvements along Inwood Rd. The attached half-scale drawings are provided for your review of potential utility conflicts in this vicinity.

It is the intention of the Town to initiate the bidding process in December 2002. Please notify the Town of any conflicts regarding your utility and proceed to perform necessary relocation in a timely manner. Your assistance in this matter is greatly appreciated. Should you have any questions, please contact me at 972-450-2860. Thank you.

Sincerely,

Luke Jalbert
Project Manager

MCI WORLDCOM

Outside Plant Services
2250 Lakeside Blvd.
Richardson, TX 75082

October 10, 2002

Mr. Luke Jalbert
Addison Public Works
Post Office Box 9010
Addison, TX 75001-9010

RE: Inwood/S.Quorum, Phase II

Dear Mr. Jalbert:

As discussed, please find enclosed, a copy of your drainage map with our fiber cable plotted and a copy of our as-built plan and profile.

I do not see a conflict with your proposed street work, but we are concerned with your storm drainage plan.

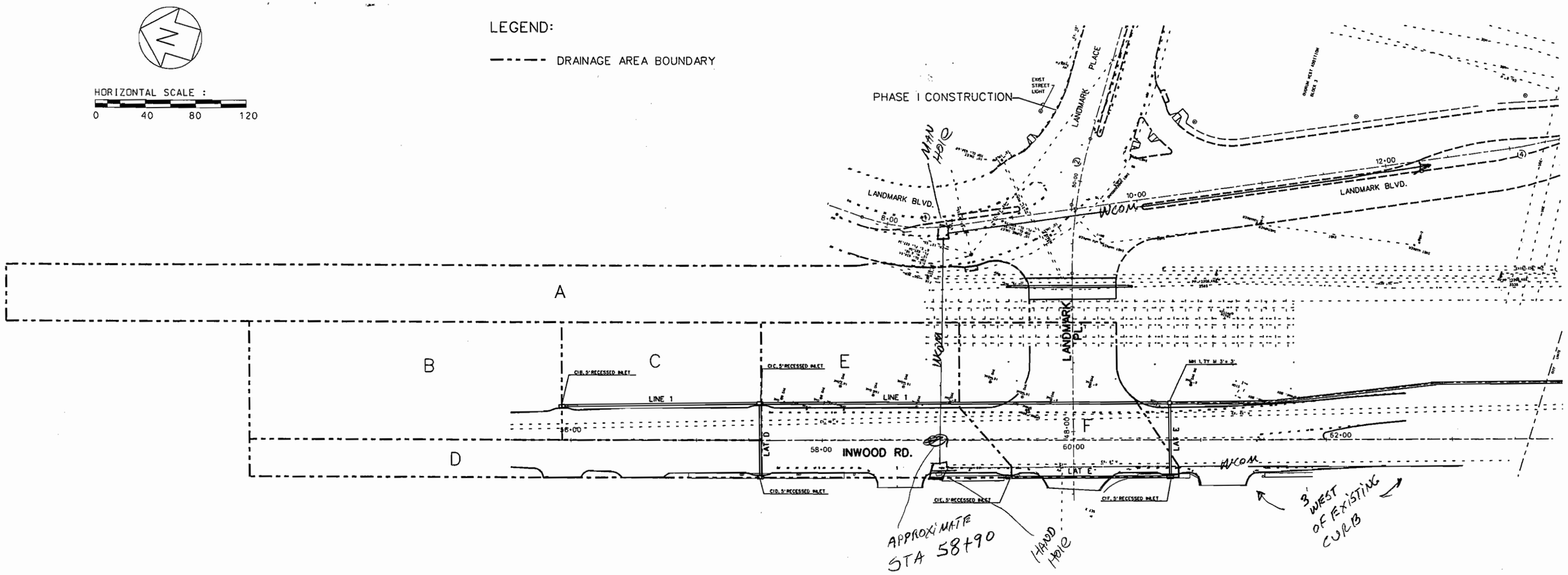
If you have any questions, or if I can be of further assistance, feel free to call me at 972-656-1759.

Sincerely,

Buddy Smith

Buddy Smith
Engineer
Outside Plant Services
FILE: C:\

cc: File



RUNOFF COMPUTATIONS

DA ID	TOTAL AREA AC	Total CA	WEIGHTED C	SUB-AREA PAVING C=0.95 AC	SUB-AREA COMMERCIAL C=0.95 AC	SUB-AREA RAILROAD YARD C=0.40 AC	Tc Min.	I-25 IN/HR	Q-25 CFS
A	0.847	0.339	0.40			0.847	15	7.77	2.63
B	0.536	0.284	0.53	0.126		0.410	15	7.77	2.21
C	0.341	0.194	0.57	0.105		0.236	15	7.77	1.51
D	0.280	0.266	0.95	0.219	0.060		15	7.77	2.06
E	0.481	0.314	0.65	0.206	0.015	0.260	15	7.77	2.44
F	0.378	0.314	0.83	0.289	0.007	0.081	15	7.77	2.44

STORM SEWER COMPUTATIONS

LINE	FROM	TO	DRAINAGE AREA NO	TOTAL D.A. (AC)	TOTAL C A	LGTH (FT)	TIME OF CONCENTRATION (MINUTES) ALONG SEWER LINE	INLET TIME	USED IN DES	FREQ (YRS)	I-25 (IN/HR)	Q-25 (CFS)	DESIGN DIA. (IN)	SLOPE % PIPE	H.G.	CAP. (CFS)	VEL. (FPS)	REMARKS
LINE 1	CIB	CIC	B	0.54	0.28	157.08			15.0	25	7.77	2.20	18	0.82	627.55	10.30	4.73	
	CIC	MH 1	B-D	1.16	0.74	326.00			15.0	25	7.77	5.78	18	0.86	627.49	10.53	5.94	
	MH 1	EX. MH	B-F	2.02	1.37	508.99			15.0	25	7.77	10.66	24	0.34	626.65	14.29	4.93	
															625.69			
LAT D	CID	CIC	D	0.28	0.27	59.33			15.0	25	7.77	2.06	18	0.84	627.51	10.43	4.63	
															627.49			
LAT E	CIE	CIF	E	0.48	0.31	128.09			15.0	25	7.77	2.44	18	0.46	626.82	7.72	3.83	
	CIF	MH 1	E-F	0.86	0.63	59.33			15.0	25	7.77	4.88	18	0.73	626.76	9.72	5.52	
															626.65			

100% REVIEW

THIS DOCUMENT IS RELEASED 09/06/02 FOR THE PURPOSE OF REVIEW ONLY UNDER THE AUTHORITY OF WERDONG LLP.E. 84718. IT IS NOT TO BE USED FOR ANY OTHER PURPOSES.

INLET COMPUTATIONS

INLET NO.	LOCATION	RUNOFF COMPUTATIONS DA NO.	CA	TIME OF CONCENTRATION ACTUAL (MIN)	TIME OF CONCENTRATION DESIGN (MIN)	DESIGN FREQ. (YRS)	I (IN/HR)	Qo (CFS)	CARRY OVER (CFS)	TOTAL Qo (CFS)	CURB INLET DESIGN Z	Z/N	S (%)	Y (FT)	PONDED WIDTH Y*Z (FT)	A (FT)	QI (CFS)	Lo=Qo/QI	L (FT)	L/Lo	A/Y	Q/Qo	Q (CFS)	CARRY OVER (CFS)	REMARKS
B	55+93.00, 25.55' LT	B	0.284		15.0	25	7.77	2.20	0.00	2.20	50	3846	0.80	0.19	9.4	0.42	0.65	3.4	5	1.47	2.25	1.00	2.20	0.00	
C	57+50.00, 28.00' LT	C	0.194		15.0	25	7.77	1.51	0.00	1.51	50	3846	0.80	0.16	8.1	0.42	0.62	2.4	5	2.06	2.59	1.00	1.51	0.00	
D	57+50.00, 28.00' RT	D	0.266		15.0	25	7.77	2.06	0.00	2.06	50	3846	0.80	0.18	9.1	0.42	0.64	3.2	5	1.56	2.30	1.00	2.06	0.00	
E	59+48.00, 28.00' RT	E	0.314		15.0	25	7.77	2.44	0.00	2.44	50	3846	1.18	0.18	9.0	0.42	0.64	3.8	5	1.31	2.32	1.00	2.44	0.00	
F	60+76.00, 27.63' RT	F	0.314		15.0	25	7.77	2.44	0.00	2.44	50	3846	1.18	0.18	9.0	0.42	0.64	3.8	5	1.31	2.33	1.00	2.44	0.00	

DRAINAGE AREA MAP

INWOOD ROAD

DRAINAGE AREA MAP

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
W.L.	C.W.W.	3/01	1"=80' H			10

File: DAM

PREPARED BY: REE GRAPHICS, INC.

5+441 HH RCHL-01 - 5-912 HH RCHL-02 - 471'

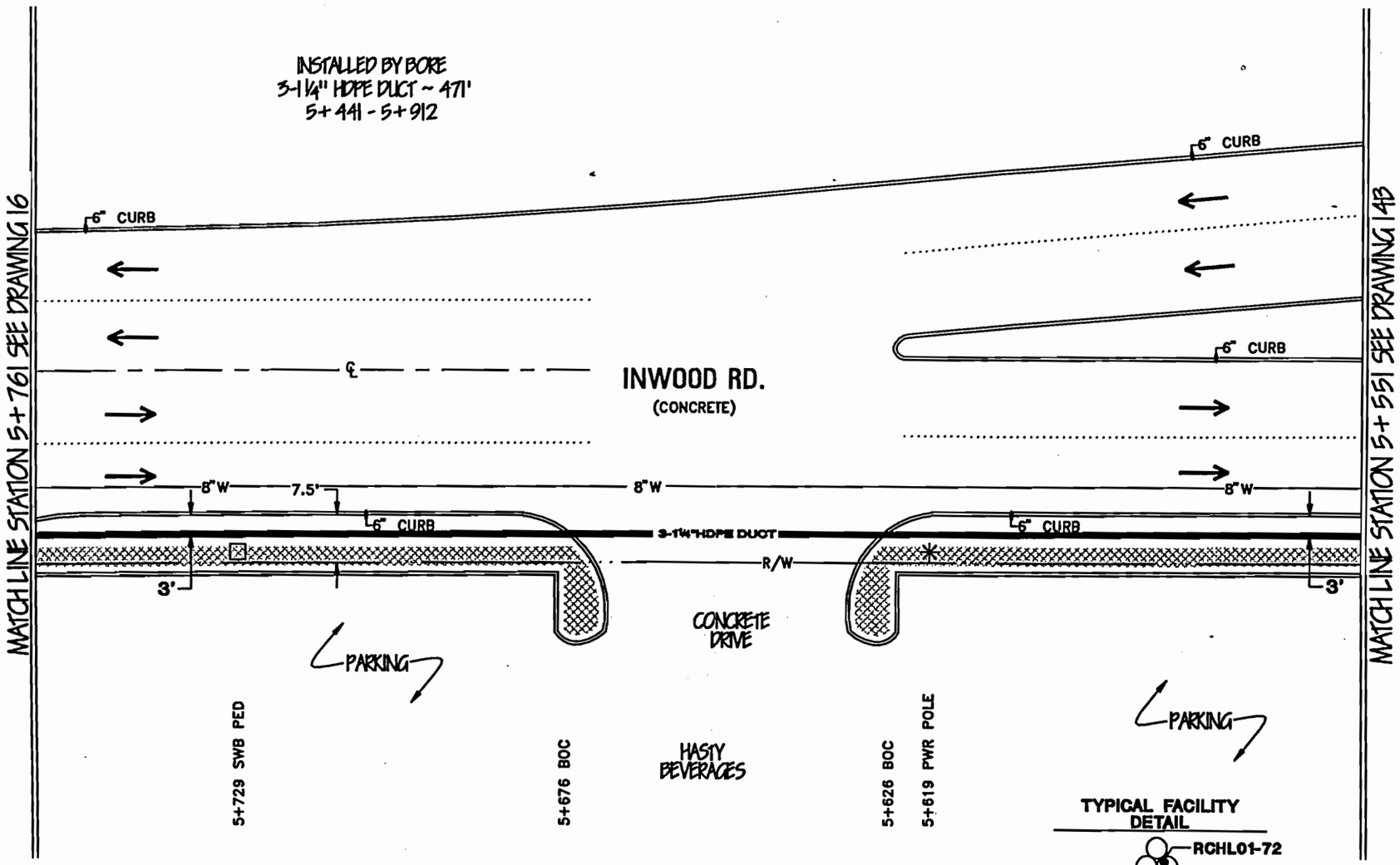
REEL RCHL01-72 0+000 SPLICE @ POLE - 28+831 SPLICE @ POLE
GROUND LENGTH 28,831' SHEATH LENGTH 32,116'

REEL TUDNL03-24 0+000 SPLICE @ POLE - 28+831 SPLICE @ POLE
GROUND LENGTH 28,831' SHEATH LENGTH 32,262'

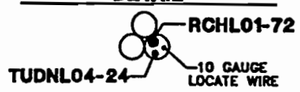
SEE DRAWING 15A FOR PROFILE VIEW

N

DIRECTION OF ENGINEERING



TYPICAL FACILITY DETAIL



3-1¼"HDPE DUCTS

LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION!
DIGITESS 1-800-344-8377

SAFETY FIRST

BROOKS FIBER COMMUNICATIONS OF TEXAS, INC.

PLAN
1"=20'

PROPRIETARY

INFORMATION NOT FOR DISCLOSURE

This set of plans contains confidential or proprietary information, and the recipient must not disclose, copy, re-create, or distribute the plans or the information contained therein, either directly or indirectly, to other entities or individuals without written or express permission from Brooks Fiber Communications of Texas, Inc.

"DRAFT"
AS-BUILT
4/23/98

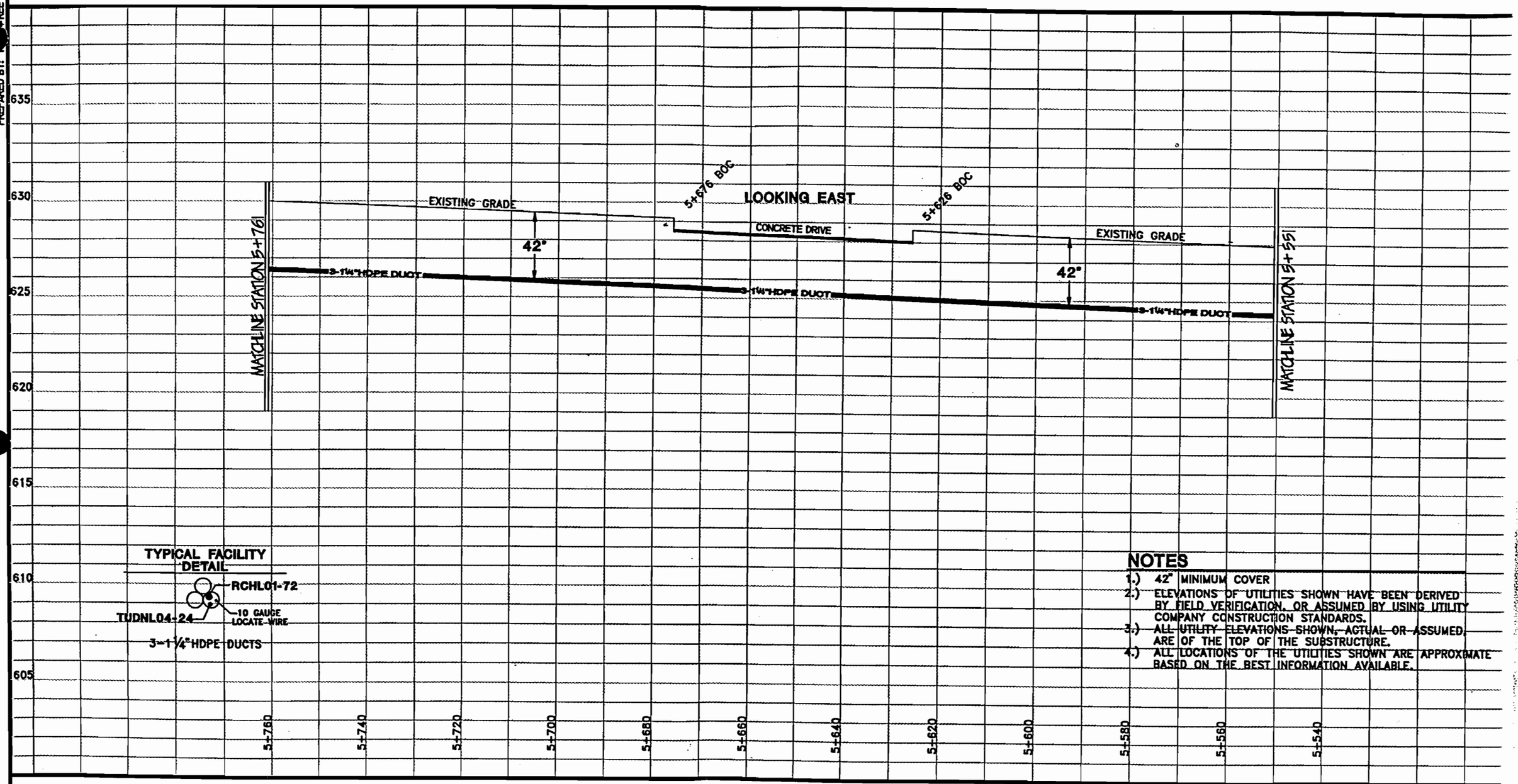
DALLAS COUNTY
ADDISON CITY LIMITS

FORT WORTH - DALLAS ALTERNATE ACCESS TELECOMMUNICATIONS SYS

FILE NAME: RSLP1015	RICHARDSON LOOP PART I	DWG. NO. 15 OF 1:
DATE: 15 SEP 97		

PREPARED BY: [illegible] REE GRAPHICS, INC

DIRECTION OF ENGINEERING



TYPICAL FACILITY DETAIL

NOTES

1.) 42" MINIMUM COVER
2.) ELEVATIONS OF UTILITIES SHOWN HAVE BEEN DERIVED BY FIELD VERIFICATION, OR ASSUMED BY USING UTILITY COMPANY CONSTRUCTION STANDARDS.
3.) ALL UTILITY ELEVATIONS SHOWN, ACTUAL OR ASSUMED, ARE OF THE TOP OF THE SUBSTRUCTURE.
4.) ALL LOCATIONS OF THE UTILITIES SHOWN ARE APPROXIMATE BASED ON THE BEST INFORMATION AVAILABLE.

LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION!
DIGITESS 1-800-344-8377

SAFETY FIRST

BROOKS FIBER COMMUNICATIONS OF TEXAS, INC.

PROFILE SCALE
1"=20' HORIZONTAL
1"=5' VERTICAL

"DRAFT"
AS-BUILT
4/23/98
DALLAS COUNTY
ADDISON CITY LIMITS

FORT WORTH – DALLAS ALTERNATE ACCESS TELECOMMUNICATIONS SYS

FILE NAME:		DWG. NO.
RSLP115A	RICHARDSON LOOP PART I	15A
DATE: 15 SEP 97		

PREPARED BY: REE GRAPHICS, INC.

SEE DRAWING 16A FOR PROFILE VIEW

5+441 HH RCHL-01 – 5+912 HH RCHL-02 = 471' — HH RCHL-02 — 5+912 HH RCHL-02 – 6+120 HH RCHL-03 = 208'

100' SLACK COIL

REEL RCHL01-72 0+000 SPLICE ⊙ POLE – 28+831 SPLICE ⊙ POLE
GROUND LENGTH 28,831' SHEATH LENGTH 32,116'

100' SLACK COIL

REEL TUDNL03-24 0+000 SPLICE ⊙ POLE – 28+831 SPLICE ⊙ POLE
GROUND LENGTH 28,831' SHEATH LENGTH 32,262'

DIRECTION OF ENGINEERING →

N

5+912 BFC HH

8'

R/W

3'

8"W

5+915 BOC

5+961 BOC

3-1¼"HDPE DUCT

1-4" BSP E/W
3-1¼"HDPE DUCT

21'

RCHL01-72
SOUTH SEQ #
72F-18070 FT

TUDNL03-24
SOUTH SEQ #
24F-12272 FT

HANDHOLE
RCHL-02
30"X42"X48"
5+912

RCHL01-72
NORTH SEQ #
72F-18170 FT

TUDNL03-24
NORTH SEQ #
24F-123782 FT

60'

100'
RIGHT-OF-WAY

5+890 WATER VALVE — WS

HEAVY LANDSCAPING

CONCRETE PARKING

INWOOD RD.
(CONCRETE)

42"W

SOUTHERN PACIFIC RAILROAD

9.5'

5+849 PWR POLE

5+836 BOC

INSTALLED BY BORE
1-4" BSP E/W
3-1¼" HDPE DUCT ~ 75'
5+999 - 6+072

INSTALLED BY BORE
3-1¼" HDPE DUCT ~ 87'
5+912 - 5+999

INSTALLED BY BORE
3-1¼" HDPE DUCT
5+441 - 5+912

8"W

3-1¼"HDPE DUCT

HEAVY LANDSCAPING

6+020 C/L RR

6+036 C/L RR

6+051 C/L RR

MATCH LINE STATION 6+074 SEE DRAWING 17

TYPICAL FACILITY DETAIL

RCHL01-72
TUDNL04-24
10 GAUGE LOCATE WIRE
3–1¼"HDPE DUCTS

TYPICAL FACILITY DETAIL

RCHL01-72
TUDNL04-24
10 GAUGE LOCATE WIRE
1–4" BSP E/W
3–1¼"HDPE DUCTS

5+767 BOC

MATCH LINE STATION 5+761 SEE DRAWING 15

LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION!
DIGITESS 1-800-344-8377

SAFETY FIRST

BROOKS FIBER COMMUNICATIONS OF TEXAS, INC.

PLAN
1"=20'

"DRAFT"
AS-BUILT
4/23/98

DALLAS COUNTY
ADDISON CITY LIMITS

FORT WORTH – DALLAS ALTERNATE ACCESS TELECOMMUNICATIONS SYS

FILE NAME: RSLP1016	RICHARDSON LOOP PART I	DWG. NO. 16 OF 1
DATE: 15 SEP 97		

PREPARED BY: REE GRAPHICS, INC.

DIRECTION C
ENGINEERIN

640
635
630
625
620

MATCHLINE STATION 5+761

5+767 BOC
5+832 BOC
DRIVEWAY
EXISTING GRADE
42"
3-1¼"HDPE DUCT
3-1¼"HDPE DUCT
3-1¼"HDPE DUCT

℄ HANDHOLE RCHL-02
5+912
LOOKING WEST

8" WATER
626.2±

WATER SERVICE
628.4±

EX 8" WATER
627.5±

℄ HANDHOLE RCHL-02
5+912
LOOKING NORTH

5+915 BOC
5+961 BOC
INWOOD RD.
EXISTING GRADE
42"
3-1¼"HDPE DUCT

42" WATER
627.5±

SEE DRAWING 16B FOR CONTINUATION

TYPICAL FACILITY DETAIL

RL01-72
TUDNL04-24
10 GAUGE LOCATE WIRE
3-1¼"HDPE DUCTS

NOTES

1.) 42" MINIMUM COVER
2.) ELEVATIONS OF UTILITIES SHOWN HAVE BEEN DERIVED BY FIELD VERIFICATION, OR ASSUMED BY USING UTILITY COMPANY CONSTRUCTION STANDARDS.
3.) ALL UTILITY ELEVATIONS SHOWN, ACTUAL OR ASSUMED, ARE OF THE TOP OF THE SUBSTRUCTURE.
4.) ALL LOCATIONS OF THE UTILITIES SHOWN ARE APPROXIMATE BASED ON THE BEST INFORMATION AVAILABLE.

5+760 5+780 5+800 5+820 5+840 5+860 5+880 5+900 5+900 5+920 5+940 5+960 5+980

LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION!
DIGITESS 1-800-344-8377

SAFETY FIRST

BROOKS FIBER COMMUNICATIONS OF TEXAS, INC.

PROFILE SCALE
1"=20' HORIZONTAL
1"=5' VERTICAL

"DRAFT"
AS-BUILT
4/23/98
DALLAS COUNTY
ADDISON CITY LIMITS

FORT WORTH – DALLAS ALTERNATE ACCESS TELECOMMUNICATIONS SYS

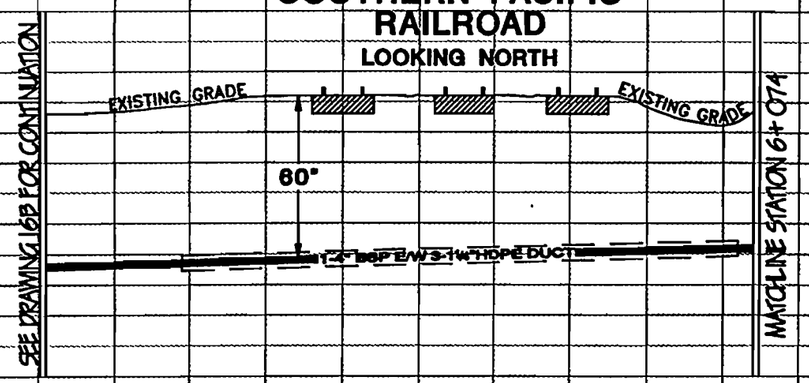
FILE NAME:	RICHARDSON LOOP PART I	DWG. NO.
RSLP116A		16A
DATE: 15 SEP 97		

PREPARED BY: REE GRAPHICS, INC.

DIRECTION C
ENGINEERIN

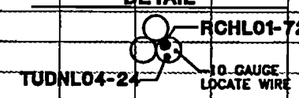
640
635
630
625
620

SOUTHERN PACIFIC RAILROAD
LOOKING NORTH



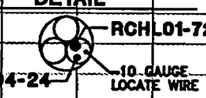
5+980 6+000 6+020 6+040 6+060 6+080

TYPICAL FACILITY DETAIL



3-1¼" HDPE DUCTS

TYPICAL FACILITY DETAIL



1-4" BSP E/W
3-1¼" HDPE DUCTS

NOTES

1.) 42" MINIMUM COVER
2.) ELEVATIONS OF UTILITIES SHOWN HAVE BEEN DERIVED BY FIELD VERIFICATION, OR ASSUMED BY USING UTILITY COMPANY CONSTRUCTION STANDARDS.
3.) ALL UTILITY ELEVATIONS SHOWN, ACTUAL OR ASSUMED, ARE OF THE TOP OF THE SUBSTRUCTURE.
4.) ALL LOCATIONS OF THE UTILITIES SHOWN ARE APPROXIMATE BASED ON THE BEST INFORMATION AVAILABLE.

LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION!
DIGITESS 1-800-344-8377

SAFETY FIRST

BROOKS FIBER COMMUNICATIONS OF TEXAS, INC.

PROFILE SCALE
1"=20' HORIZONTAL
1"=5' VERTICAL

"DRAFT"
AS-BUILT
4/23/98
DALLAS COUNTY
ADDISON CITY LIMITS

FORT WORTH – DALLAS ALTERNATE ACCESS TELECOMMUNICATIONS SYS

FILE NAME:		DWG. NO.
RSLP116B	RICHARDSON LOOP PART I	16B
DATE: 15 SEP 97		

5+912 HH RCHL-02 – 6+120 HH RCHL-03 = 208' | HH RCHL-03 | 6+120 HH RCHL-03 – 6+962 HH RCHL-04 = 842'

SPLICE POINT

REEL RCHL01-72 0+000 SPLICE @ POLE – 28+831 SPLICE @ POLE
GROUND LENGTH 28,831' SHEATH LENGTH 32,118'
102' SLACK COIL
REEL TUDNL03-24 0+000 SPLICE @ POLE – 28+831 SPLICE @ POLE
GROUND LENGTH 28,831' SHEATH LENGTH 32,282'

MAINT# 90810B: REPLACED EXISTING HH WITH NEW MH AT STA 6+120. ADJUSTED SLACK IN MH & IN HH AT STA 6+962 TO REPAIR CABLE CUT.

N

DIRECTION OF ENGINEERING

SEE DRAWING 17A FOR PROFILE VIEW

RCHL01-72 WEST SEQ # 72F-18472 FT
TUDNL03-24 WEST SEQ # 24F-12672 FT

SPLICE MANHOLE **RCHL-03** 4'X4'X4' 6+120

RCHL01-72 SOUTH SEQ # 72F-18572 FT
TUDNL03-24 SOUTH SEQ # 24F-12772 FT

14800 THE LANDMARK

6+135 SS
6+107 BOC
6+121 BOC BFC M.H.
6+092 SS MH
6+082 BOC
6+193 SS
6+215 BOC
6+269 BOC
12"SS
6"SS
1"
¼HDPE DUCT
4' CONC. S/W
R/W
SWB
MEDIAN
6" CURB
8'
12"W
2"G
G
W
LANDMARK (CONCRETE)
1'
6-1 ¼HDPE DUCT

MATCH LINE STATION 6+074 SEE DRAWING 16

MATCH LINE STATION 6+352 SEE DRAWING 18

TYPICAL FACILITY DETAIL

RCHL01-72
TUDNL04-24
10 GAUGE LOCATE WIRE
3-1 ¼"HDPE DUCTS

INSTALLED BY BORE
3-1 ¼ HDPE DUCT ~ 81'
6+072 - 6+120

INSTALLED BY BORE
3-1 ¼' HDPE DUCT
6+120 - 6+962

SAFETY FIRST!

LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION!
DIGITESS 1-800-344-8377

BROOKS FIBER COMMUNICATIONS OF TEXAS, INC.

PLAN
1"=20'

"DRAFT"
AS-BUILT
4/23/98

DALLAS COUNTY
ADDISON CITY LIMITS

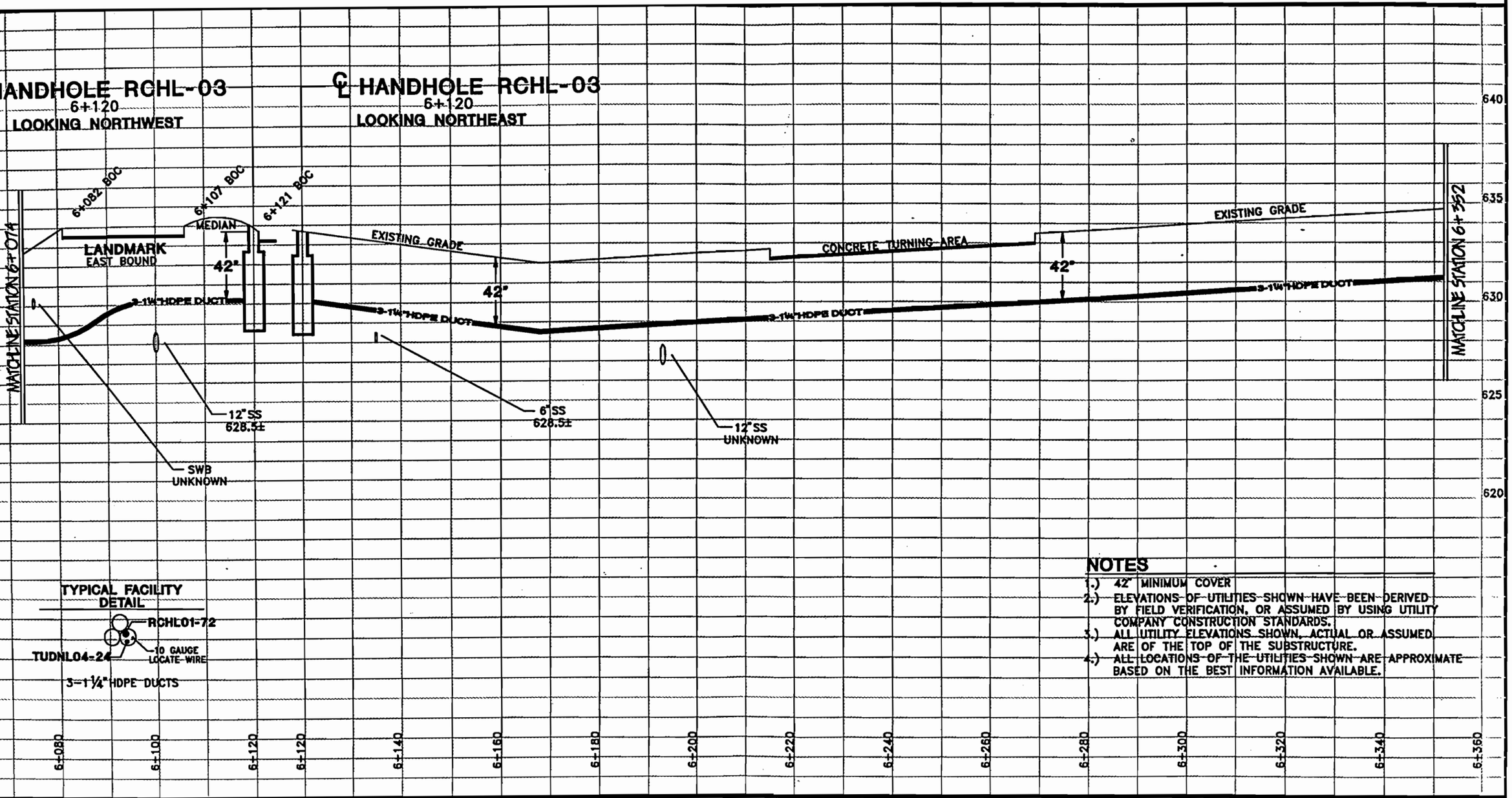
FORT WORTH – DALLAS ALTERNATE ACCESS TELECOMMUNICATIONS SYSTEM
REVISION 1: MAINT# 90810B 10/16/01 CD

FILE NAME: RSLP1017	RICHARDSON LOOP PART I	DWG. NO. 17 OF 129
DATE: 15 SEP 97		

DIRECTION OF ENGINEERING →

HANDHOLE RCHL-03
6+120
LOOKING NORTHWEST

℄ HANDHOLE RCHL-03
6+120
LOOKING NORTHEAST



TYPICAL FACILITY DETAIL

NOTES

1.) 42" MINIMUM COVER
2.) ELEVATIONS OF UTILITIES SHOWN HAVE BEEN DERIVED BY FIELD VERIFICATION, OR ASSUMED BY USING UTILITY COMPANY CONSTRUCTION STANDARDS.
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LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION!
DIGITESS 1-800-344-8377

SAFETY FIRST!

BROOKS FIBER COMMUNICATIONS OF TEXAS, INC.

PROFILE SCALE
1"=20' HORIZONTAL
1"=5' VERTICAL

"DRAFT"
AS-BUILT
4/23/98
DALLAS COUNTY
ADDISON CITY LIMITS

FORT WORTH – DALLAS ALTERNATE ACCESS TELECOMMUNICATIONS SYSTEM

FILE NAME:		DWG. NO.
RSLP117A	RICHARDSON LOOP PART I	17A
DATE: 15 SEP 97		

EXHIBIT "A"

COUNTY:	DALLAS
ROADWAY:	SOUTH QUORUM/INWOOD CONNECTION
6' DRAINAGE EASEMENT:	DE-5

DRAINAGE EASEMENT NO. **DE - 5**

BEING a 332 square foot tract of land situated in the Town of Addison, Dallas County, Texas in the Josiah Pancoast Survey, Abstract No. 1146, and being part of Lot 1 of Inwood Park North Addition recorded in Volume 79234 Page 0001 Plat Records of Dallas County, Texas, and being more particularly described as follows:

COMMENCING at found 5/8 inch iron rod at the Southeast corner of said Lot 1 and West Right-of-Way line of Inwood Road (a 60 foot Right-of-Way at this point);

THENCE North 17°01'00" West, along the said Right-of-Way of Inwood Road, a distance of 264.67 feet to a point for the southeast corner of subject drainage easement. Herein describe for the POINT OF BEGINNING;

THENCE South 72°59'00" West departing said West Right-of-Way, a distance of 6.00 feet to a point for corner;

THENCE North 17°01'00" West parallel to and 6.00 feet from said West Right-of-Way, a distance of 56.25 feet to a point for a corner, said point being on the South Right-of-Way line of a 50.00 foot wide access of utility and drainage easement. Dedicated to the Town of Addison as part of this subject addition;

THENCE North 89°37'46" East along South Right-of-Way line of said 50.00 feet easement, a distance of 6.26 feet to found ½ inch iron rod for corner, said point being on the West Right-of-Way of said Inwood Road;

THENCE South 17°01'00" East along West Right-of-Way of Inwood Road a distance of 54.46 feet to the POINT OF BEGINNING and containing 332 square feet or 0.0076 acres of land, more or less.

Donald R. Howard 11/11/00

Donald R. Howard, P.E., R.P.L.S.
Registered Professional Land Surveyor
Texas Registration No. 2812

EXHIBIT "B"

COUNTY : DALLAS
ROADWAY : SOUTH QUORUM/INWOOD CONNECTION
PARCEL : **DRAINAGE ESM'T. (DE-5)**

Donald R. Howard 11/11/00
DONALD R. HOWARD
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REG. NO. 2812

STATE OF TEXAS REGISTERED DONALD R. HOWARD 2812 PROFESSIONAL LAND SURVEYOR

TOWN OF ADDISON

PAGE OF

SCALE : 1" = 100'

0 50 100 200 300

LINE TABLE

NO.	BEARING	DIST.
1	S72°59'00"W	6.00'
2	N17°01'00"W	56.25'
3	N89°37'46"E	6.26'
4	S17°01'00"E	54.46'

JOSIAH PANCOAST SURVEY ABSTRACT NO. 1146

LANDMARK BOULEVARD

QUORUM ADDITION
BLOCK 3
V. 79100, P. 1895 DRDCT
D.R.D.C.T.

QUORUM WEST ADDITION
BLOCK 3
V. 81005, P. 1454 DRDCT
D.R.D.C.T.

TOWN OF ADDISON
CITY OF FARMERS BRANCH

30' DRAIN. & UTIL. ESM'T.

10' WATER MAIN ESM'T.

426.55'

FR 1/2"

LOT 1, BLOCK 1

ANDERSON & WHITE ADDITION
V. 953, P. 895 PRDCT

LOT 2, BLOCK 1

64'

PARCEL 4

PARCEL 6

PARCEL 5

D. P. & L. CO. R.O.W.
(V. 4617, P. 375)

100'

METAL ELEC. INLET POLE

N17°01'00"W

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

100'

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

N17°01'00"W

INWOOD ROAD

POINT OF BEGINNING

IRF1/2"

IRF1/2"

L4

L3

L2

L1

N17°01'00"W
264.67'

IRF5/8"

INWOOD ROAD

TOWN OF ADDISON
CITY OF FARMERS BRANCH

LOT 1.1

PL

DE-5
(332 S.F.)

POINT OF COMMENCING

INWOOD PARK NORTH ADD'N.
LOT 3
VOL. 79234, PG. 0001

INWOOD PARK NORTH ADD'N.
LOT 1
VOL. 79234, PG. 0001

50' ACCESS, UTILITY & DRAINAGE ESM'T.

N89°37'46"W
200.40'

N89°37'46"W
200.40'

PL

N17°01'00"W
319.13'

JOSIAH PANCOAST SURVEY
ABSTRACT NO. 1146

EXHIBIT "A"

County: Dallas
Roadway: South Quorum/Inwood Connection
Parcel: R E - 7

ROADWAY EASEMENT NO. RE-7

BEING a 0.3219 acre tract of land situated in the Town Of Addison, Dallas County, Texas, in the Josiah Pancoast Survey, Abstract No. 1146, and being part of a 100 Foot Right-Of-Way owned by St. Louis Southwestern Railway Company, and being more particularly described as follows:

COMMENCING at a ½ inch iron rod lying at the Southwest corner of Block 3, Quorum Addition, an addition to the Town of Addison, Dallas County, Texas, according to the plat thereof recorded in Volume 79100, Page 1895, Deed Records Of Dallas County, Texas, and being the Southeast corner of Block 3, Quorum West Addition, an addition to the Town of Addison, Dallas County, Texas, according to the plat thereof recorded in Volume 81005, Page 1454, deed records of Dallas County, Texas;

THENCE North 89°28'00" West along the South line of Block 3, Quorum West Addition, a distance of 165.32 feet to a point for the Southwest corner of said Quorum West Addition, said point lying in the Southeast Right-Of-Way line of the St. Louis and Southwestern Railroad;

THENCE, North 17°01'00" West along the said Southeast line a distance of 356.40 feet to the POINT OF BEGINNING;

THENCE, South 72°59'00" West a distance of 80.00 feet to an angle point;

THENCE South 27°59'00" West a distance of 14.14 feet to an angle point;

THENCE South 17°01'00" East a distance of 144.80 feet to an angle point;

THENCE North 23°11'26" West a distance of 92.98 feet to a point for North corner lying in the Northeast line of Inwood Road (60 foot Right-of-Way) said point also lying in the Southwest line of the said 100 foot Right-of-Way St. Louis Southwestern Railway Company;

THENCE North 17°01'00" West along the common line between the said Inwood Road Right-of-Way and the 100 foot St. Louis Southwestern Railway Company Right-of-Way, a distance of 524.56 feet to a point for corner;

THENCE North 72°59'00" East departing said common line a distance of 10.00 feet to an angle point;

THENCE South 17°01'00" East a distance of 362.20 to an angle point;

THENCE South 62°01'00" East a distance of 14.14 feet to an angle point;

THENCE North 72°59'00"East a distance of 65.00 feet to an angle point;

THENCE North 27°59'00" East a distance of 21.21 feet to a point for corner lying in the common line between the said Block 3, Quorum West Addition and the 100 foot Right-of-Way St. Louis Southwestern Railway Company;

THENCE South 17°01'00" East along said common line a distance of 105.00 feet to the POINT OF BEGINNING and containing approximately 14,021 square feet or 0.3219 acres of land.

The basis of bearings is the Northeast line of the 100 foot Right-of-Way St. Louis Southwestern Railway Company.

Donald R. Howard 11/11/00

Donald R. Howard, P.E., R.P.L.S.
Registered Professional Land Surveyor
Texas Registration No. 2812

STATE OF TEXAS
REGISTERED
DONALD R. HOWARD
2812
PROFESSIONAL
LAND SURVEYOR

SCALE : 1" = 100'

0 50 100 200 300

LINE TABLE

NO.	BEARING	DIST.
1	S27°59'00"W	14.14'
2	N72°59'00"E	10.00'
3	S62°01'00"E	14.14'
4	N27°59'00"E	21.21'

EXHIBIT "B"

COUNTY : DALLAS
ROADWAY : SOUTH QUORUM/INWOOD CONNECTION
PARCEL : ROADWAY ESM'T.(RE-7)

Donald R. Howard 11/11/00

DONALD R. HOWARD
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REG. NO. 2812

STATE OF TEXAS REGISTERED DONALD R. HOWARD 2812 PROFESSIONAL LAND SURVEYOR

TOWN OF ADDISON

PAGE OF

TOWN OF ADDISON
CITY OF FARMERS BRANCH

QUORUM ADDITION
BLOCK 3
V. 79100, P. 1895 DRDCT
D.R.D.C.T.

20' DRAIN. & UTIL ESMT.

10' WATER MAIN ESMT.

426.55'

FIR 1/2"

QUORUM WEST ADDITION
BLOCK 3
V. 81005, P. 1454 DRDCT
D.R.D.C.T.

JOSIAH PANCOAST SURVEY
ABSTRACT NO. 1146

LANDMARK BOULEVARD

POINT OF COMMENCING

POINT OF BEGINNING

S17°01'00"E 105.0'

N17°01'00"W 356.40'

N89°28'00"W 165.32'

D.P.L. METAL ELEC. INLET POLE

L4 N72°59'00"E 65.0'

L1 S72°59'00"W 80.0'

S17°01'00"E 144.80'

L3 S17°01'00"E 362.20'

N17°01'00"W 524.56'

N23°11'26"W 92.98'

PARCEL 7 (14,021 S.F.)

INWOOD ROAD

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

LOT 1, BLOCK 1

ANDERSON & WHITE ADDITION
V. 953, P. 893 PRDCT

LOT 2, BLOCK 1

64'

PARCEL 4

PARCEL 5

PARCEL 6

D. P. & L. CO. R.O.W.
(V. 4617, P. 375)

100'

100'

ST. LOUIS & SOUTHWESTERN RAILWAY COMPANY

INWOOD ROAD

TOWN OF ADDISON
CITY OF FARMERS BRANCH

LOT 1.1

50' ACCESS, UTILITY & DRAINAGE ESM'T.

INWOOD PARK NORTH ADD'N.
LOT 3
VOL. 79234, PG. 0001

INWOOD PARK NORTH ADD'N.
LOT 1
VOL. 79234, PG. 0001

JOSIAH PANCOAST SURVEY
ABSTRACT NO. 1146

Steve Chutchian

From: Michael Murphy
Sent: Tuesday, December 31, 2002 11:06 AM
To: Cowles & Thompson (E-mail)
Cc: Jim Pierce; Steve Chutchian
Subject: Landmark Crossing

John,

Steve and I have both looked over the two documents in connection with the City of Farmers Branch, referred to in your Dec. 27th, 2002 letter, and determined that they have no impact on our crossing proposal. They are both near the site but neither are immediately adjacent to or are connected to our crossing site.

Please call with any questions....

Mike

Michael E. Murphy, PE
Director of Public Works
(972) 450-2878 Work
(214) 215-5280 Mobile
(972) 450-2837 Fax
E-Mail: mmurphy@ci.addison.tx.us

TOWN OF ADDISON
PAYMENT AUTHORIZATION MEMO

DATE: 12/30/02 Claim # _____ Check $ 1900.00

Vendor No. _____

Vendor Name HIPES & ASSOCIATES

Address P.O. BOX 600142

Address DALLAS, TEXAS 75360-0142

Address _____

Zip Code _____

INVOICE # OR DESCRIPTION	FUND	DEPT	OBJ	PROJ	SAC	AMOUNT
	(00)	(000)	(00000)	(00000)	(000)	($000,000.00)
	41	000	58110	42303		1900.00

TOTAL #1900.00

EXPLANATION S. QUORUM / INWOOD APPRAISALS

Steve Chutchian
Authorized Signature

Finance

HIPES & ASSOCIATES

REAL ESTATE
APPRAISERS/CONSULTANTS

OFFICE ADDRESS:
7557 RAMBLER RD #260
LOCK BOX 25
DALLAS, TEXAS 75231

MAILING ADDRESS:
P.O. BOX 600142
DALLAS, TEXAS 75360-0142
214-739-5941

December 20, 2002

TOWN OF ADDISON
c/o Mr. Michael Murphy - Director of Public Works
16801 Westgrove Drive
P.O. Box 9010
Addison, Texas 75001-9010

INVOICE

****

Vendor Number: N/A

Purchase Order #: Per Steve Chutchian

C.I.P. Number: N/A

Appraisal Fee: South Quorum/Inwood Connection $2,000.00
Parcels DE-5, & DE-6/DE-7
(two reports)
Restaurant & Motel

Amount of Contracts: $ N/A
Amount Bill to Date: $ N/A
Amount of Current Invoice: $2,000.00

Total Due $2,000.00

Discount: If paid on, or before, 01/03/03, less 5%, ... $ 100.00

Net Amount, with discount, ... $1,900.00 — O.K. to PAY SC 12/30/02

Thank you.

TOWN OF ADDISON
PAYMENT AUTHORIZATION MEMO

DATE: 12/20/02 Claim # _____ Check $ 9,128.25

Vendor No. _____

Vendor Name PARSONS TRANSPORTATION GROUP, INC.

Address 15770 NORTH DALLAS PKWY.

Address SUITE 500

Address DALLAS, TEXAS

Zip Code 75248

INVOICE # OR DESCRIPTION	FUND	DEPT	OBJ	PROJ	SAC	AMOUNT
	(00)	(000)	(00000)	(00000)	(000)	($000,000.00)
# 01683404	41	000	56570	42303		9128.25

TOTAL $ 9,128.25

EXPLANATION Invoice 1 S. Quincy Connection Design

Steve Chutchian
Authorized Signature

Finance

PARSONS

15770 North Dallas Parkway, Suite 500 • Dallas, Texas 75248 • (972) 991-1900 • Fax: (972) 490-9261 • www.parsons.com

December 11, 2002

Mr. Steven Z. Chutchian, P.E.
Town of Addison
P.O. Box 9010
Addison, Texas 75001-9010

Subject: *Inwood Connection*
Invoice No. 01683404

Dear Steven,

Attached is our invoice number 01683404 for the above referenced project. This invoice covers work performed during the period from December 30, 2000 through November 29, 2002.

During this period, we have completed the following tasks:

1. Prepared and submitted 100% design plans.
2. Met with the town engineers and incorporated 100% review comments to the design plans and resubmitted plans.
3. Provided plans and documents for the process of the railroad right of way.
4. Completed signal timing plans for the two intersections on the Quorum Connector.
5. Completed additional topographic survey for design at Inwood/South Quorum connection.
6. Revised Landmark Place Plan and Profile.
7. Addressed additional review comments on the 100% plans.

If you have questions or comments on the invoice, please call or email me, so that we can discuss them. Thank you for processing this bill for payment.

Very truly yours,

PARSONS TRANSPORTATION GROUP INC.

Weidong Li

Weidong Li, P.E.
Project Manager

PARSONS

PARSONS TRANSPORTATION GROUP INC.
15770 N. Dallas Parkway • Suite 500, LB #21 • Dallas, Texas 75248 USA • 972.991.1900 • 972.490.9261 Fax

INVOICE

December 11, 2002

CLIENT REF.:
INVOICE NO.: 01683404
PROJECT NO.: 643314
CLIENT NO.: 51663

TO: TOWN OF ADDISON
P.O. BOX 9010
ADDISON, TX 75001-9010

ATTN: MR. STEVEN CHUTCHIAN, P.E.

PLEASE REMIT TO:
PARSONS TRANSPORTATION GROUP INC.
C/O BANK OF AMERICA
LOCKBOX 96922
CHICAGO, IL 60693

FOR: SOUTH QUORUM/INWOOD CONNECTION
ENGINEERING DESIGN

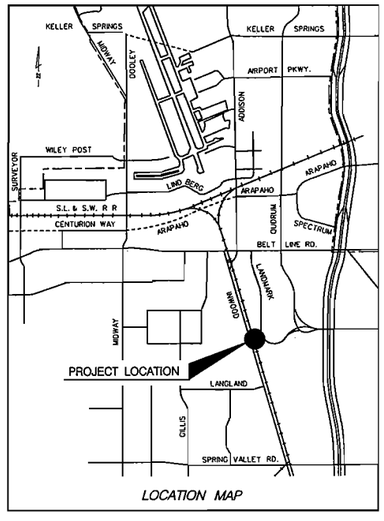
	CURRENT PERIOD THROUGH 11/29/02	CUMULATIVE-TO-DATE THROUGH 11/29/02
BASIC ENGINEERING FEE $62,500 PERCENT COMPLETE: 100%	1,875.00	62,500.00
SIGNAL TIMING PLAN $3,600 PERCENT COMPLETE: 100%	180.00	3,600.00
SURVEYING/EXPENSE $23,000 PERCENT COMPLETE: 100%	0.00	23,000.00
GEOTECHNICAL REPORT $6,000 PERCENT COMPLETE: 100%	0.00	6,000.00
S/A 1-SIGNAL PLAN ADJUSTMENTS $3,605 PERCENT COMPLETE: 100%	0.00	3,605.00
S/A 2-SURVEYING $3,600 PERCENT COMPLETE: 100%	0.00	3,600.00
S/A 3-RR CROSSING $4,585 PERCENT COMPLETE: 100%	229.25	4,585.00
S/A 4-INWOOD/SOUTH QUORUM ACCESS PHASE II $4,585 PERCENT COMPLETE: 40%	6,844.00	6,844.00
TOTAL THIS INVOICE:	9,128.25	113,734.00

MAXIMUM BILLABLE:	$124,000.00
TOTAL BILLED ITD:	$113,734.00
REMAINING TO BILL:	$10,266.00

TOWN OF
ADDISON

ROADWAY, DRAINAGE AND TRAFFIC SIGNAL DESIGN PLANS
INWOOD / SOUTH QUORUM ACCESS - PHASE II
INWOOD CONNECTION

BID No.



LOCATION MAP

MAYOR
R. Scott Wheeler

CITY COUNCIL
Bob Barrett
Frank Klein
Diane Mallory
Fred Silver
Glynda Turner
Cathy Ways

CITY MANAGER:
Ron Whitehead

DIRECTOR OF PUBLIC WORKS
Michael E. Murphy, P.E.

100% REVIEW

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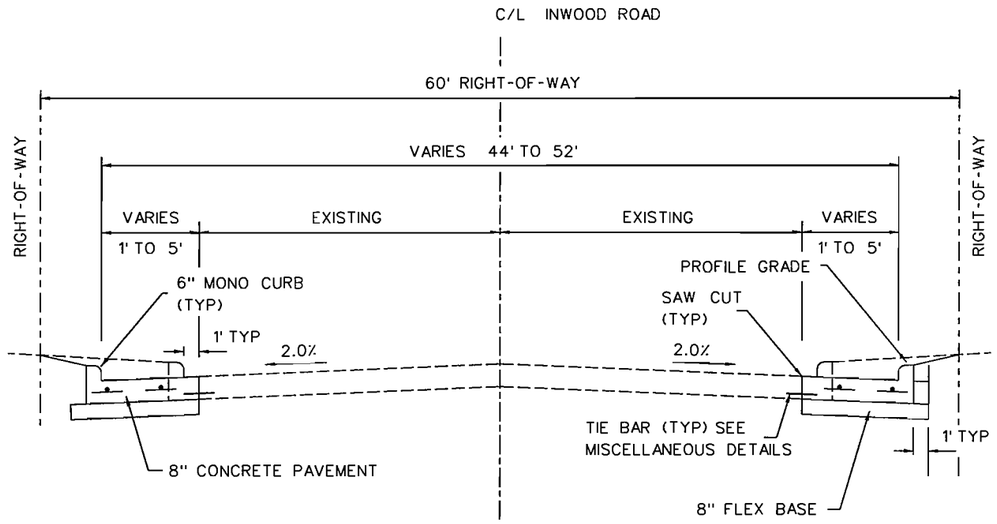
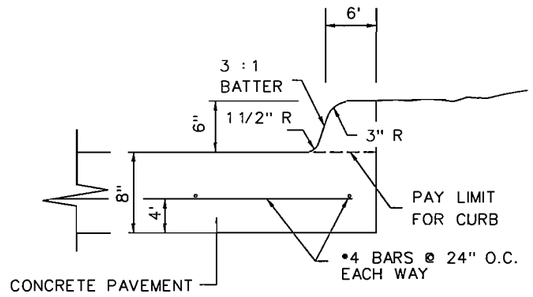
PARSONS TRANSPORTATION GROUP, INC.
5485 BELT LINE ROAD, SUITE 199 • DALLAS, TEXAS 75240
(972) 991-1900 • FAX: (972) 490-9261

INDEX OF DRAWINGS

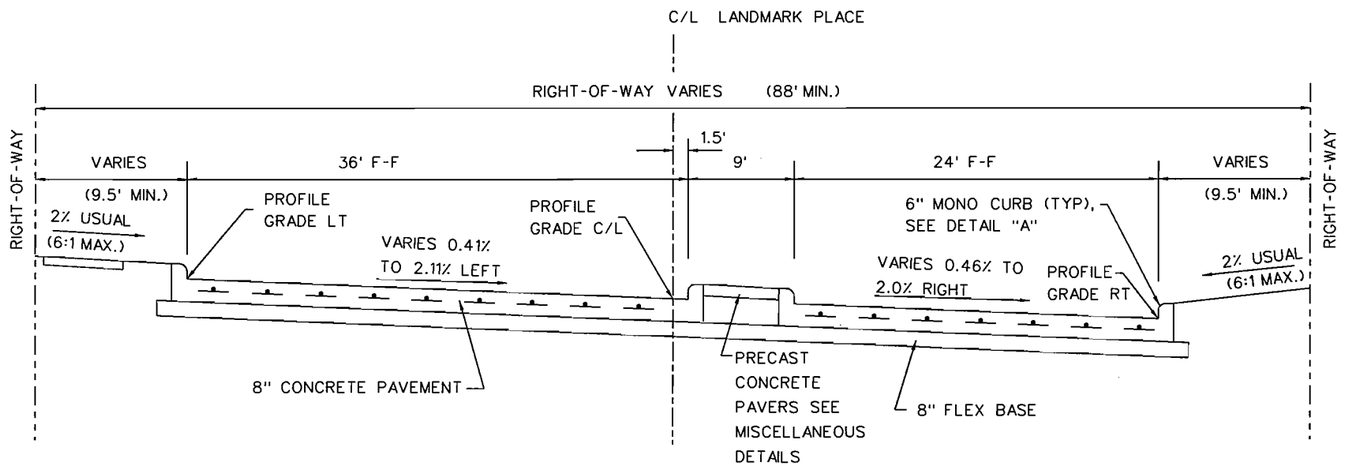
File : INWOOD-TP



INWOOD ROAD - STA. 55+52.00 TO STA. 56.52.00



DETAIL "A"

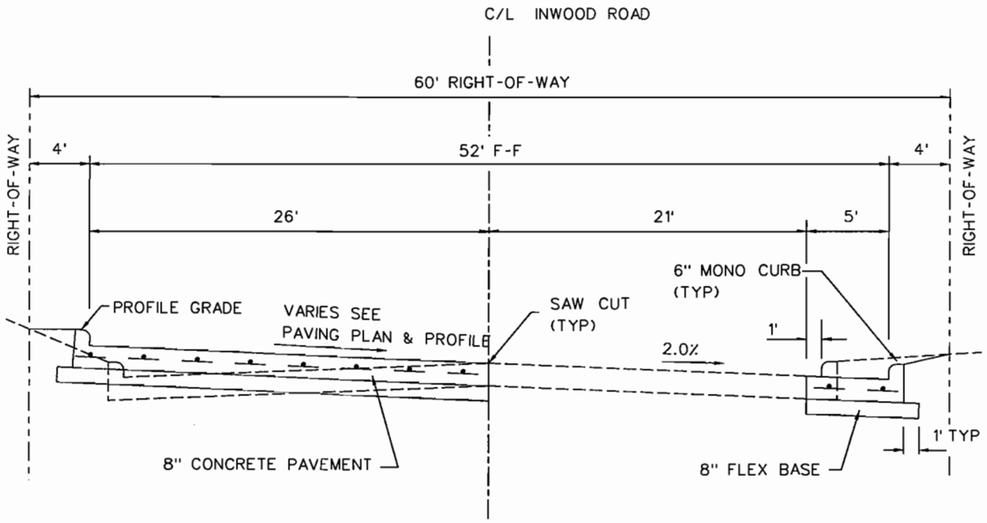


LANDMARK PLACE - STA. 48+19.15 TO STA. 48+68.65
STA. 49+05.83 TO STA. 49+22.70

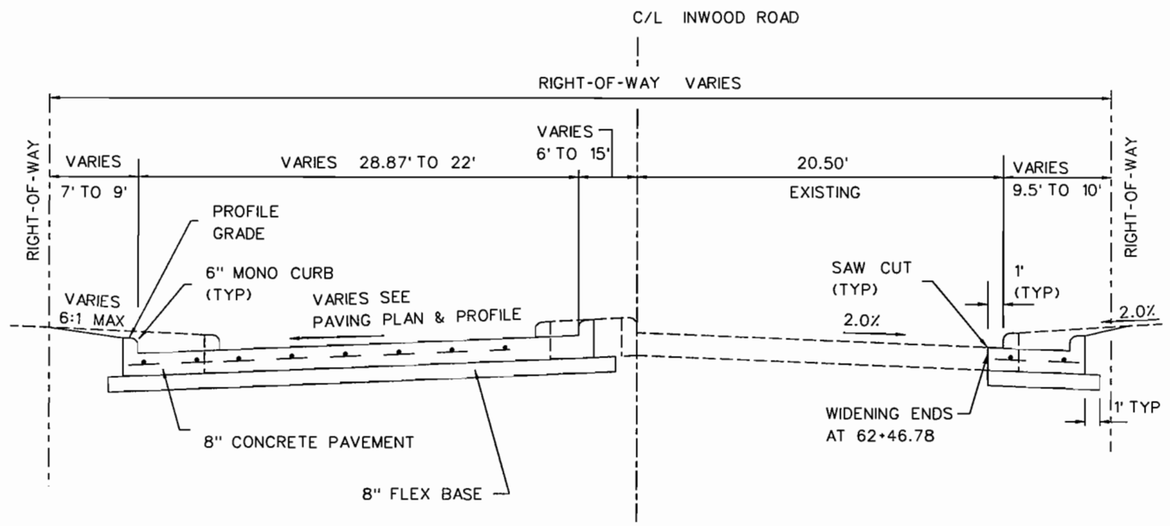
100% REVIEW

TYPICAL SECTIONS						
INWOOD CONNECTION						
SHEET 1 OF 2						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	3/01	N. T. S.			2

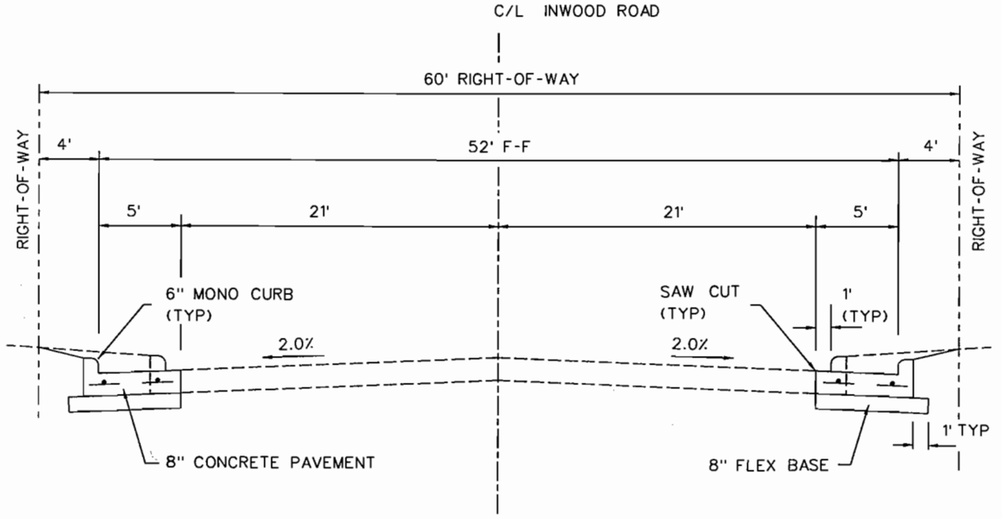
File : TYP-SEC-1



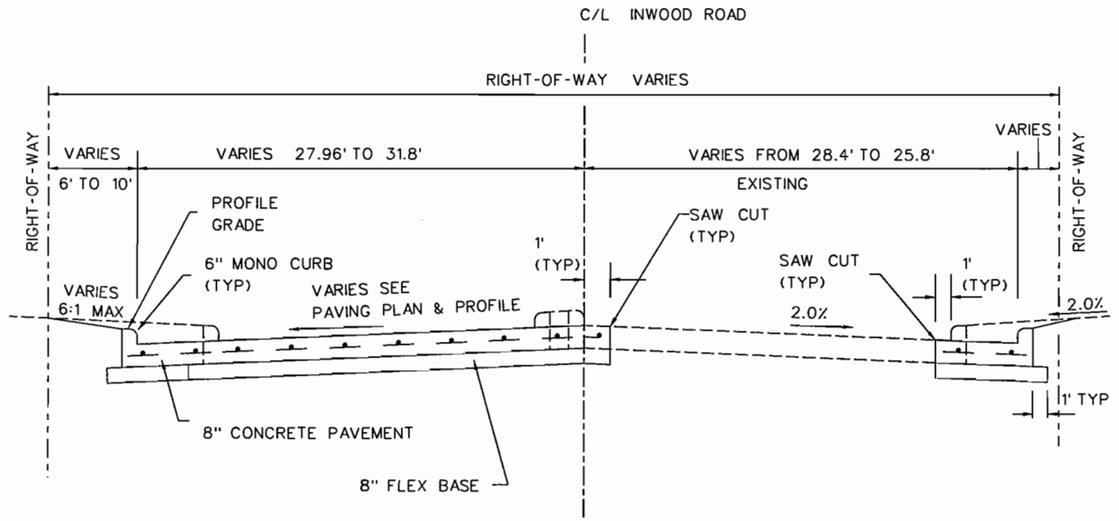
INWOOD ROAD - STA. 57+45.50 TO STA. 61+45.56



INWOOD ROAD - STA. 61+97.75 TO STA. 62+63.21



INWOOD ROAD - STA. 56+52.00 TO STA. 57+45.50



INWOOD ROAD - STA. 61+45.56 TO STA. 61+97.75

100% REVIEW

TYPICAL SECTIONS

INWOOD CONNECTION

SHEET 2 OF 2

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	3/01	N. T. S.			3

File : TYP-SEC-2

GENERAL NOTES

1. Contractor shall apply hydromulch with common Bermuda to the entire right of way and shall provide temporary watering until acceptance of the work.

2. The contractor shall conduct his operations in such manner as not to interfere with, hinder or obstruct the Railroad Company in any manner whatsoever in the use or operation of its trains or other property. In the performance of said work no construction material or equipment shall be stored on the Railroad's right of way neorer than 26 feet from the centerline of any tracks.

3. The Railroad Company will furnish and install standard crossing plank and automatic warning devices for the railroad crossing. The contractor shall coordinate construction with the Railroad Company for installation.

4. Contractor shall dispose of excess or unsuitable excavated material offsite.

5. Contractor will clean existing and completed pavements by sweeping as a means of dust control. Sweeping equipment shall be capable of picking up debris and dirt from the pavement by vacuum.

6. Until acceptance of the work, Contractor shall promptly repair all potholes or utility cuts in Inwood Road. No cold patches will be allowed for pavement repairs.

7. A Traffic Control Plan has been prepared for this project. Any changes or revisions to the Traffic Control Plan must be approved in advance. Contractor must maintain at least two lanes of traffic at all times on existing Inwood Road.

8. Contractor shall be responsible for furnishing, installing, moving, replacing, maintaining, and removing all barricades and warning devices used in traffic control. Barricades and warning signs shall be double-weighted to prevent tipping or shall be staked or pinned in a positive manner.

9. Contractor shall remove all construction debris before placing backfill behind curbs and in parkways. The top four inches of backfill in parkways and medians shall be topsoil from the project site and capable of sustaining vegetation. Backfill and compaction shall be in accordance with the specifications and special provision.

10. Reinforcing steel and dowels shall be supported by approved highchairs or blocks sufficient to maintain their location during concrete placement. Required bar lap shall be 30 diameters minimum.

11. All trenches, ditches and excavations shall be backfilled and compacted as directed by owners.

12. Contractor shall provide two project signs to show pertinent information about the project. Signs shall be 4' x 8' plywood with blue lettering on white background. The Owner will provide an electronic file showing the Addison logo. Signs shall be mounted on skids for use in various locations. Provide sandbags to keep signs upright. The Contractor shall place and move signs as directed by Owner. Contractor shall submit shop drawings for project signs.

13. When working in Farmers Branch, contact the City of Farmers Branch Engineering Department for inspection of the work. Provide two working days advance notice. Phone 972-919-2588.

14. Install "Infil-pan" manhole inserts in sanitary manholes remaining in paved streets. Cost shall be subsidiary to adjusting manholes and valve boxes.

15. Items shown on the plans to be constructed without an associated pay item shall be considered incidental to the contract.

16. The contractor shall maintain all irrigation systems within the limits of the project during the duration of the contract. The contractor is responsible for the prompt repair or replacement of any damage to irrigation lines, valves, and controllers, sprinklers, wiring and appurtenances that are domaged during construction.

17. Contractor shall protect the existing pavement and prepare it at his own expense should damage occurs.

18. Trees marked as to be removed shall be removed and hauled off by the contractor. The Town of Addison shall restore the parking with new tree plantings and other landscaping items.

File : NOTE-QUAN

SUMMARY OF QUANTITIES

Item	Description	Unit	Quantity
101	Barricades, Signing, and Traffic Control	MO	6
102	Prepare Right of Way	STA	8
103	Remove Exist Conc Pavement	SY	1289
104	Remove Exist Conc Curb	LF	639
105	Unclassified Street Excavation	CY	217
106	Roadway Embankment	CY	149
107	Hydromulch Bermuda Grass, Water and Fertilizer	SY	1338
108	8" Reinforced Concrete Pavement	SY	2293
109	8" Lime Stabilized Subgrade	SY	2414
110	Hydrated Lime (42 lbs per square yard)	TON	50.7
111	6" Integral Concrete Curb	LF	1307.89
112	4" Reinforced Concrete Walk	SF	133
113	Reinforced Concrete Sidewalk Ramps	EA	2
114	Reinforced Concrete Driveway	SY	106.3
115	Landscape Pavers	SF	472
116	4" Reflective Pavement Marker, Type II-CR	EA	34
117	4" Round Pavement Marker, Type P-7	EA	102
118	4" Reflective Pavement Marker, Type II-A-A	EA	42
119	4" Round Pavement Marker, Type P-7YR	EA	160
120	6" x 6" White Jiggle Bars (White) Type 6-1	EA	43
121	24" Wide White Thermoplastic Stop Bar	LF	134
122	12" Wide White Thermoplastic Crosswalk Line	LF	130
123	Thermoplastic Pavement Arrows	EA	8
124	4" Wide Temporary Lane Stripe	LF	3961
125	6" Dia PVC Irrigation Sleeve	LF	88
126	Project Signs	EA	2
201	18" Class III RCP	LF	710
202	24" Class III RCP	LF	500
203	Type M Manhole	EA	1
204	5' Recessed Inlet	EA	5
205	Adjust Utility Manhole, Valve Box, Etc.	EA	6
206	Trench Safety Design	LS	1
207	Furnish and Install Trench Safety	LF	1210
208	Inlet Protection	EA	5
209	Straw Bale Dike	LF	50
210	Silt Fence	LF	50
301	3" PVC Conduit (Sch 40)(Trenched)	LF	40
302	4" PVC Conduit (Sch 40)(Bored)	LF	250
303	4" RM Conduit (Bored)	LF	90
304	No. 6 AWG Bare Wire	LF	440
305	Ground Box (Type A) W/ Apron	EA	4
306	Troffic Sign (SR3-1)(Mast Arm Mount)(F.O. Blankout)	EA	2
307	Troffic Sign (SR3-4)(Mast Arm Mount)	EA	4
308	Traffic Sign (SR3-8)(Mast Arm Mount)	EA	2
309	Traffic Sign (R3-5)(Mast Arm Maunt)	EA	1
310	Traffic Sign (R10-12S)(Mast Arm Mount)	EA	1
311	Signal Pole Concrete Foundation (Type 30-A)	EA	3
312	Signal Pole Concrete Foundation (Type 36-A)	EA	1
313	12" - 3 Section Signal Head (Type V3)	EA	10
314	12" - 4 Section Signal Head (Type V4LT)	EA	3
315	12" - 4 Section Signal Head (Type V4LT/RT (F))	EA	3
316	Vacuum Formed Backplate (3 Sec)(12 in)	EA	10
317	Vacuum Formed Backplate (4 Sec)(12 in)	EA	6
318	3 Section Astro Brac w/29" Bands	EA	10
319	4 Section Astro Brac w/29" Bands	EA	6
320	Pedestrian Signal Head with Mounting Hardwore	EA	2
321	4 Conductor Opticom Cable	LF	800
322	5 Cndr Signal Coble (16 AWG)(IMSA 20-1)	LF	550
323	7 Cndr Signal Coble (16 AWG)(IMSA 20-1)	LF	265
324	16 Cndr Signal Coble (12 AWG)(IMSA 20-1)	LF	970
325	Pedestrian Push Button & R10-4b Sign Assembly	EA	2
326	Opticom Directional Sensors with Mounting Bracket	EA	3
327	Opticom Discriminator Module	EA	1
328	Belden 8281 Coaxial Cable	LF	1270
329	3 Cndr Signal Coble (14 AWG)(IMSA 20-1)	LF	1270
330	19' T-Base Pole w/30' Most Arm	EA	1
331	19' T-Base Pole w/35' Most Arm	EA	1
332	28' T-Base Pole w/35' Most Arm	EA	1
333	28' T-Base Pole w/40' Most Arm	EA	1
334	Video Comero & Mounting Hardwore	EA	5

100% REVIEW

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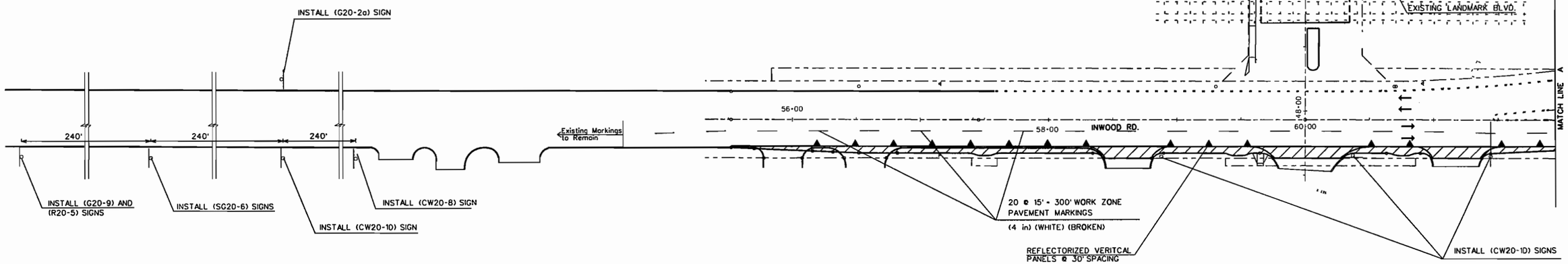
GENERAL NOTES AND QUANTITY SUMMARY

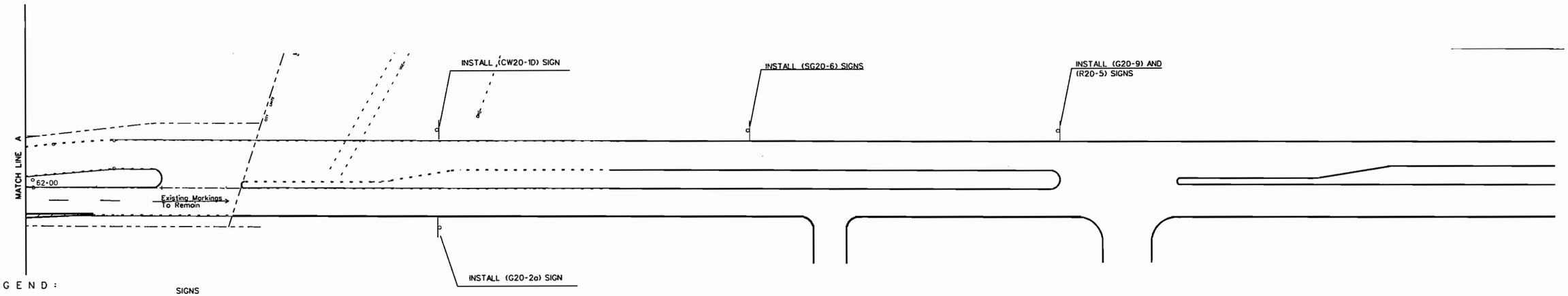
INWOOD CONNECTION

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
S.L.K.	C.W.W. E.C.S.	3/01	N.T.S.			4





LEGEND :

- PROPOSED ROADWAY EDGE
- EXISTING ROADWAY EDGE
- CONSTRUCTION WORK AREA
- REFLECTORIZED PLASTIC DRUM
- REFLECTORIZED VERTICAL PANEL
- SIGN LOCATION
- TRAVEL LANE

SIGNS	
CW20-1D	ROAD WORK AHEAD
G20-2a	END ROAD WORK
G20-9	WORK ZONE
R20-5	TRAFFIC FINES DOUBLE
SG20-6	CONTRACTOR INFO
CW20-8	NARROW LANES AHEAD

NOTES :

1. CONSTRUCTION IS LIMITED TO THE SOUTHBOUND DIRECTION ONLY.
2. CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED TO THEIR ORIGINAL CONDITION OR BETTER.
3. ALL BARRICADES, DRUMS, AND VERTICAL PANELS SHALL BE EQUIPPED WITH TYPE A WARNING LIGHTS.

HORIZONTAL SCALE :

0 40 80 120

100% REVIEW

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TRAFFIC CONTROL PLAN

INWOOD CONNECTION

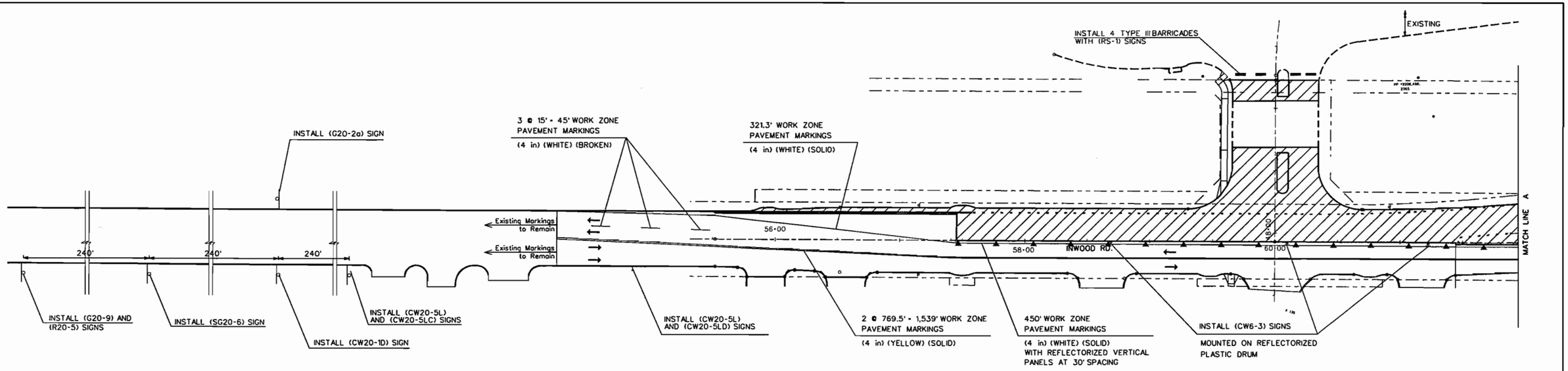
PHASE 1

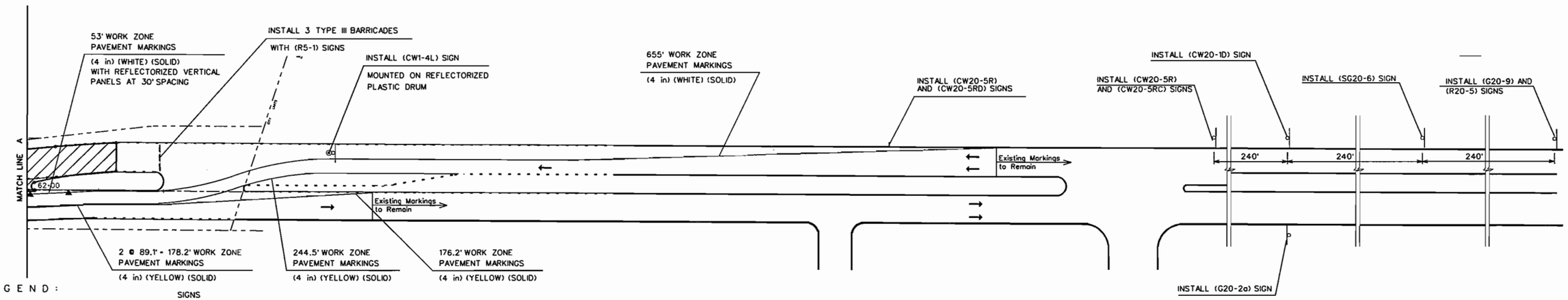
DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
D.J.S.	E.C.S.	3/01	1"=80'			5

File : TCP-1
File : TCP-1





LEGEND :

PROPOSED ROADWAY EDGE	
EXISTING ROADWAY EDGE	
CONSTRUCTION WORK AREA	
REFLECTORIZED PLASTIC DRUM	
REFLECTORIZED VERTICAL PANEL	
SIGN LOCATION	
TRAVEL LANE	

SIGNS

CW1-4R/L	REVERSE TURN RIGHT OR LEFT
CW6-3	TWO-WAY TRAFFIC
CW20-1D	ROAD WORK AHEAD
G20-2a	END ROAD WORK
G20-9	WORK ZONE
R5-1	DO NOT ENTER
R20-5	TRAFFIC FINES DOUBLE
SG20-6	CONTRACTOR INFO
CW20-5R/L	LANE CLOSED RIGHT OR LEFT
CW20-5R/LC	500 FT
CW20-5R/LD	AHEAD

1. NORTHBOUND INWOOD IS BEING RECONSTRUCTED DURING THIS PHASE, RESULTING IN TWO-WAY TRAFFIC ON THE SOUTHBOUND TRAVEL LANES.
2. CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED TO THEIR ORIGINAL CONDITION OR BETTER.
3. ALL BARRICADES, DRUMS, AND VERTICAL PANELS SHALL BE EQUIPPED WITH TYPE A WARNING LIGHTS.

HORIZONTAL SCALE :

0 40 80 120

100% REVIEW

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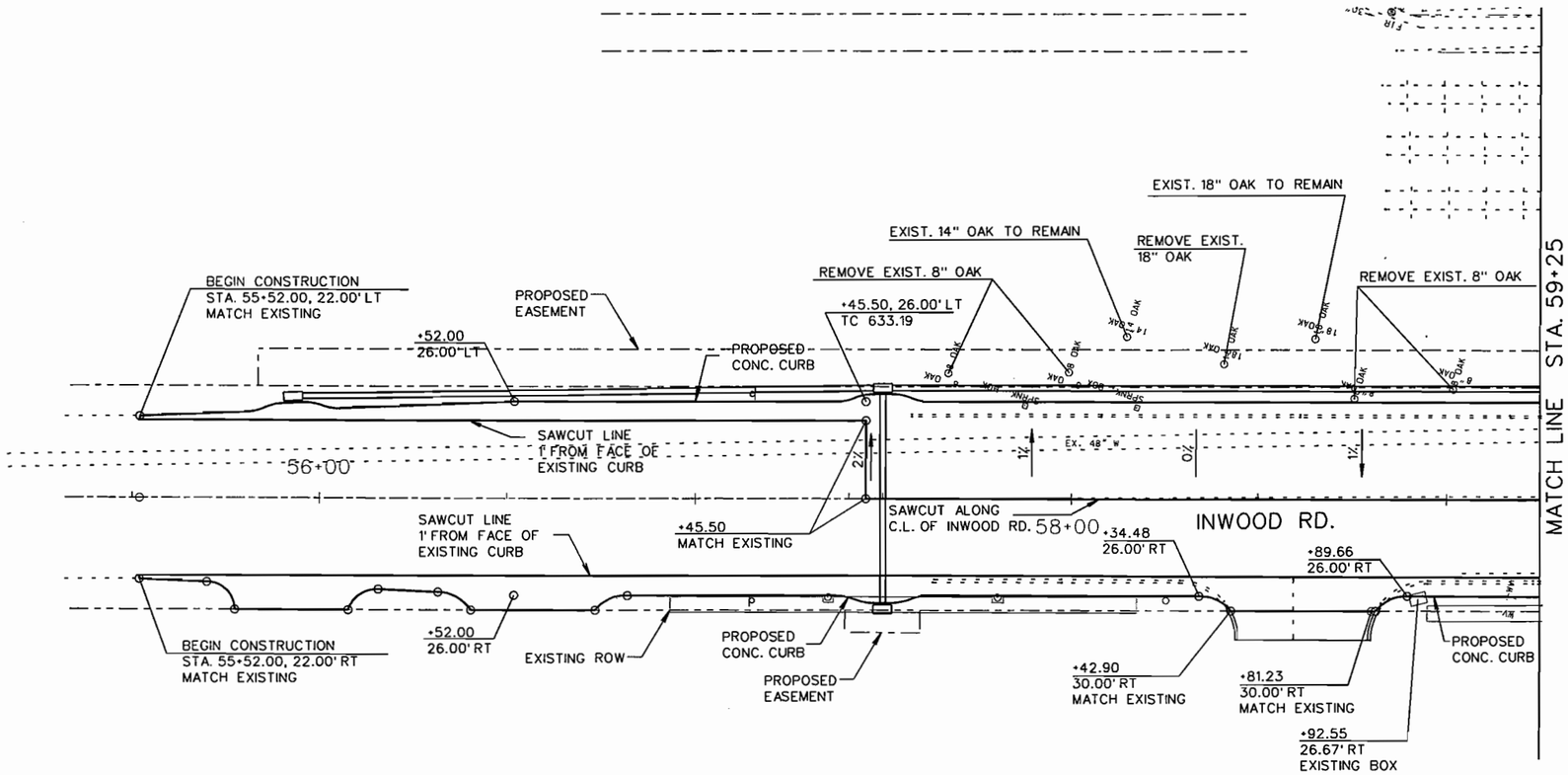
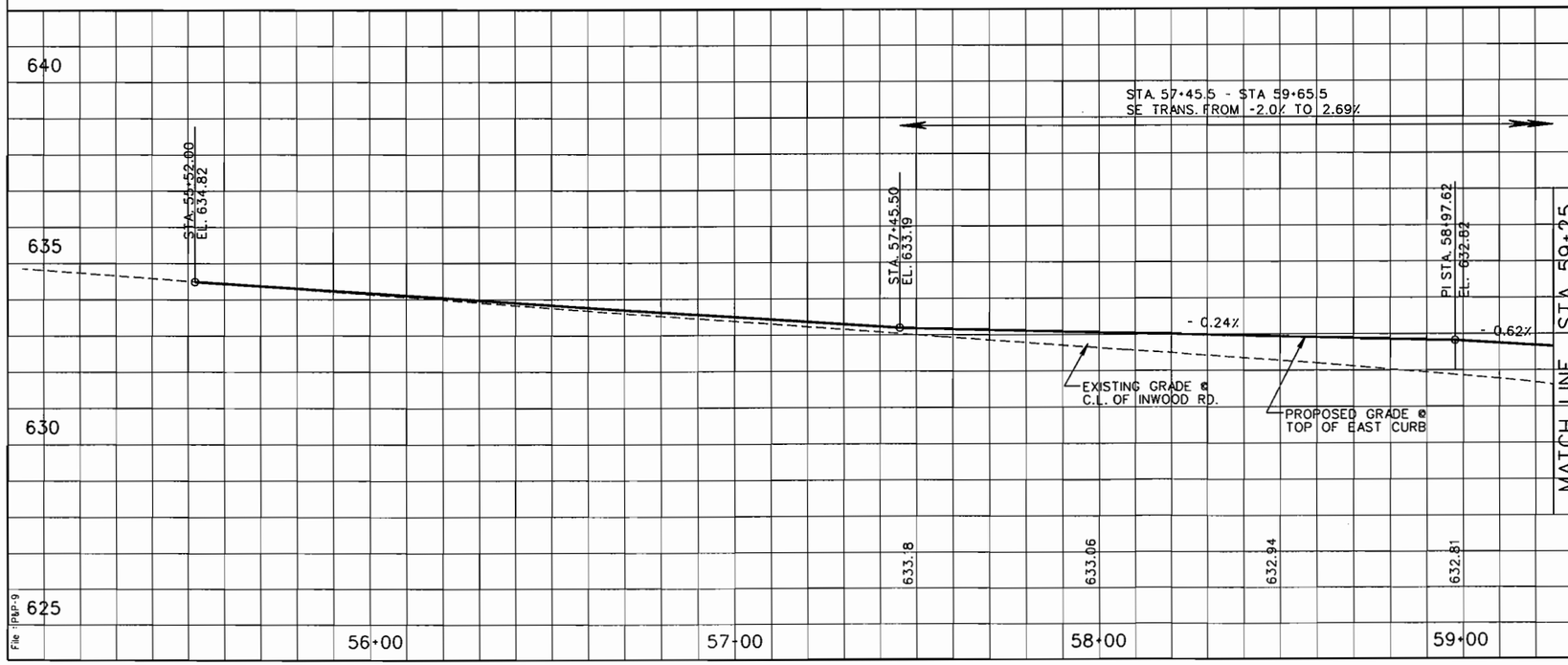
INWOOD CONNECTION
PHASE 2
DEPARTMENT OF PUBLIC WORKS
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
D.J.S.	E.C.S.	3/01	1"=80'			6

File : INWOOD-TCP2





HORIZONTAL SCALE :
0 10 20 30 40 50 60

VERTICAL SCALE :
0 1 2 3 4 5 6

NOTES:

1. ALL DIMENSIONS ARE FACE TO FACE OF CURB, UNLESS OTHERWISE NOTED.
2. FOR WIDENING, CONTRACTOR IS TO SAWCUT EXISTING PAVEMENT 1' FROM FACE OF EXISTING CURB AND CONSTRUCT NEW PAVEMENT TO LIMITS AS SHOWN ON THE PLAN USING A CROSS SLOPE OF 2%.
3. ALL EXISTING TREES WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND HAULED OFF BY THE CONTRACTOR. THE TOWN OF ADDISON SHALL RESTORE THE PARKWAYS WITH NEW TREE PLANTINGS AND OTHER LANDSCAPING ITEMS.

100% REVIEW

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PLAN AND PROFILE

INWOOD CONNECTION

STA. 55+52.00 TO STA. 59+25.00

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
W.L.	C.W.W.	3/01	1"=40' H 1"=4' V			7

File: P&P-9

MATCH EXISTING PAVEMENT

RAILROAD CROSSING SEE NOTE 5

MATCH LINE STA. 59+25

EXIST 18" OAK TO REMAIN

+54.43
34.50' LT

REMOVE EXIST. 18" OAK

REMOVE EXIST. 8" OAK

LANDMARK PL.

36'

9'

24'

+53.86
34.50' RT

EXIST. 8" OAK TO REMAIN

REMOVE EXIST. 8" OAK

6" PVC IRRIGATION SLEEVE

SEE NOTE 6

RELOCATE ST. SIGN

PROPOSED CONC. CURB

+16.39 PRC
33.65' LT.

R=1389.50'

END CONSTRUCTION
STA. 62+63.21 PT
37.00' LT
MATCH EXISTING

+30.49
26.00' LT

+36.13
1.5' RT

+36.13
10.5' RT

R=4.5'

+69.47
26.00' LT

+70.74 PC
26.00' LT

SAWCUT ALONG C.L. OF INWOOD RD.

INWOOD RD.

48+00

+44.55
MATCH EXISTING

62+00

60+00

SAWCUT LINE 1' FROM FACE OF EXISTING CURB

+39.00
26.00' RT

+63.37
26.00' RT

+89.98
25.07' RT

+98.42
30.00' RT

+37.64
30.00' RT

+44.55
26.00' RT

SAWCUT LINE 1' FROM FACE OF EXISTING CURB

PROPOSED CONC. CURB

+64.86
26.00' RT

+65.00
26.00' RT
PROPOSED ADA RAMP TO R.O.W.

+28.80
30.00' RT
MATCH EXISTING

+75.06
30.00' RT
MATCH EXISTING

PROPOSED CONC. CURB

STA. 47+93.15, C/L LANDMARK PLACE
= STA. 60+00.00, C/L INWOOD RD.

END CONSTRUCTION
STA. 62+46.78
21.00' RT
MATCH EXISITNG

END CONSTRUCTION
STA. 62+63.21
15.00' LT
MATCH EXISITNG

HORIZONTAL SCALE :
0 10 20 30 40 50 60

VERTICAL SCALE :
0 1 2 3 4 5 6

NOTES:

1. ALL DIMENSIONS ARE FACE TO FACE OF CURB, UNLESS OTHERWISE NOTED.
2. FOR WIDENING, CONTRACTOR IS TO SAWCUT EXISTING PAVEMENT 1' FROM FACE OF EXISTING CURB AND CONSTRUCT NEW PAVEMENT TO LIMITS AS SHOWN ON THE PLAN USING A CROSS SLOPE OF 2%.
3. SEE PLAN AND PROFILE SHEET 9 FOR PAVING DETAILS ON LANDMARK PLACE RAIL ROAD CROSSING.
4. SEE TYPICAL SECTIONS FOR CONSTRUCTION JOINT DETAIL ON LANDMARK PLACE.
5. CONCRETE CROSSING ON RAILROAD TRACKS ARE TO BE PROVIDED BY OTHERS.
6. CONTRACTOR SHALL PROTECT EXISTING TOWN OF ADDISON SIGN AND FOUNDATION AND REPAIR IT AT HIS/HER OWN EXPENSE. SHOULD ANY DAMAGE OCCURS.

100% REVIEW

640
635
630
625

STA. 57+45.50 - STA 59+65.50
SE TRANS. FROM -2.0% TO 2.69%

MATCH LINE STA. 59+25

PI STA 59+65.50
EL. 632.40

PI STA 60+00.00
EL. 632.07

PI STA 60+34.50
EL. 631.66

PI STA 61+57.62
EL. 629.48

- 0.62%
- 0.957%
- 1.19%
- 1.77%
- 0.99%

PROPOSED GRADE @ TOP OF EAST CURB

EXISTING GRADE @ CL OF INWOOD RD.

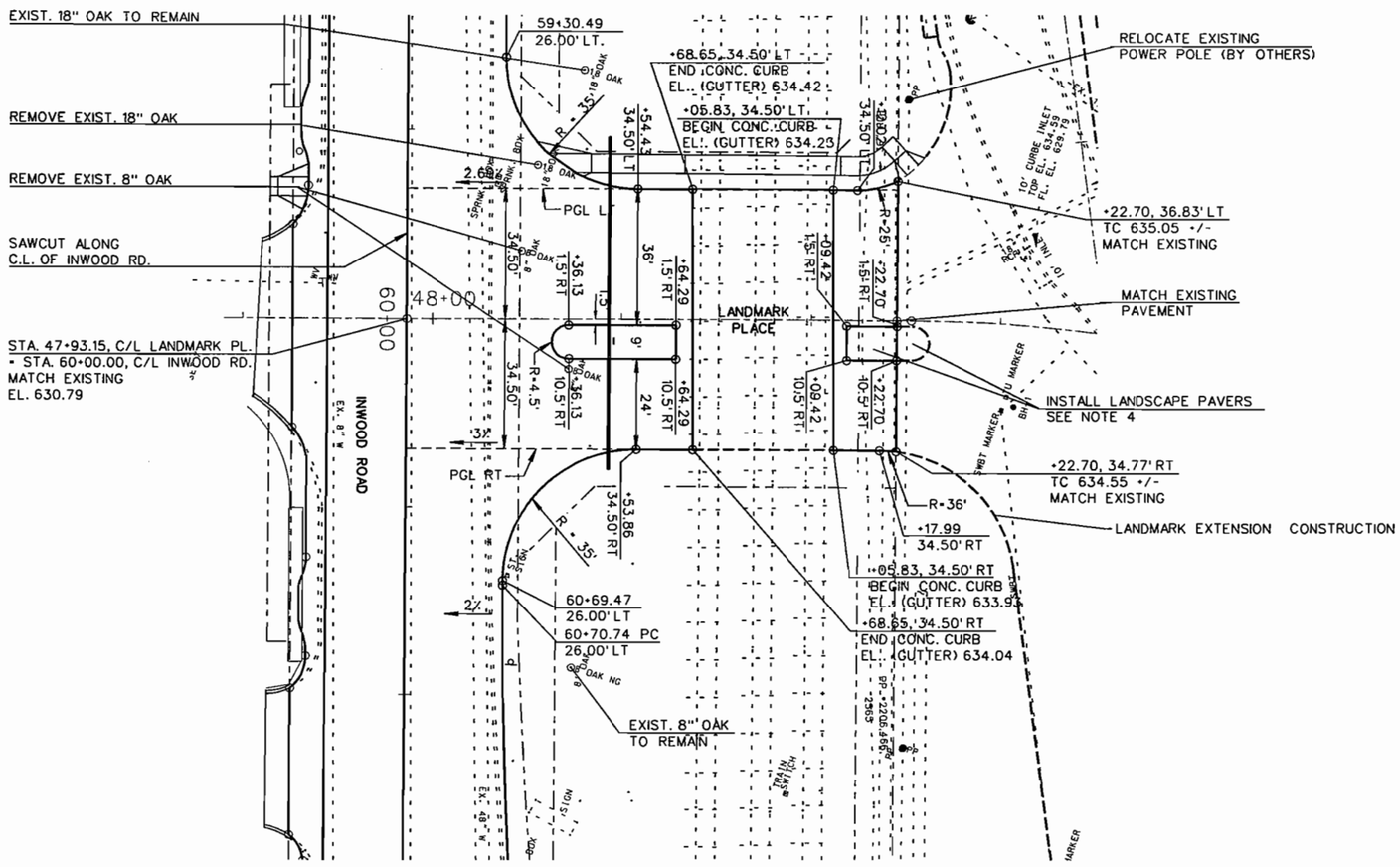
STA. 62+63.21,
37.14' LT
MATCH EXISTING
EL.. 628.52

632.49
632.07
631.89
630.50
629.62
629.06
628.57

60+00
61+00
62+00

PLAN AND PROFILE						
INWOOD CONNECTION						
STA. 59+25.00 TO STA. 62+63.21						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
W.L.	C.W.W.	3/01	1"=40' H 1"=4' V			8

File: PRP-8



HORIZONTAL SCALE :

0 10 20 30 40 50 60

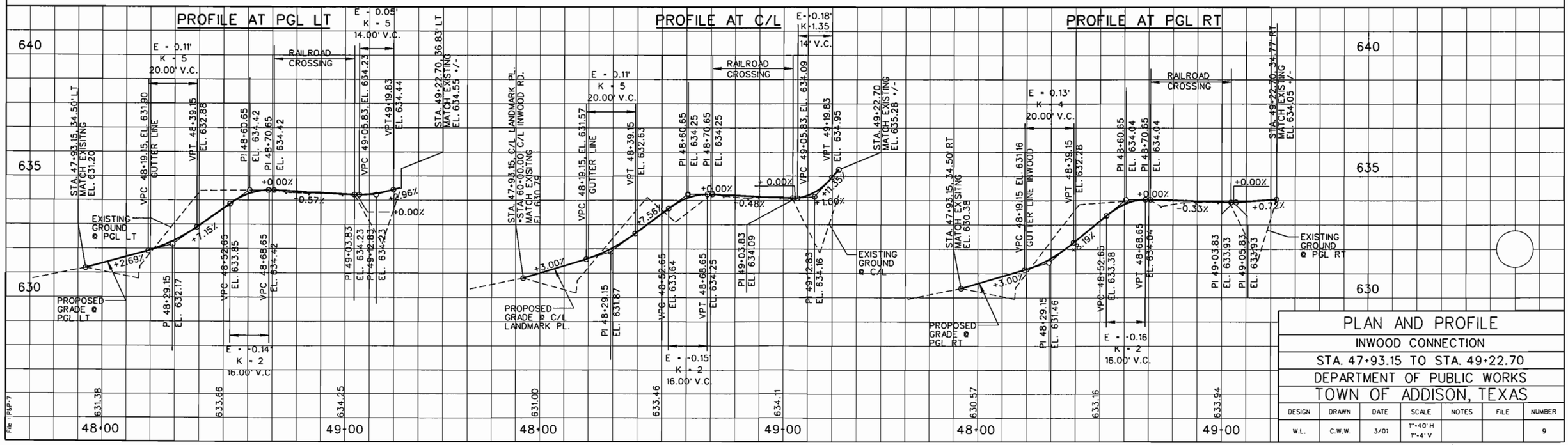
VERTICAL SCALE :

0 1 2 3 4 5 6

NOTES:

1. ALL DIMENSIONS ARE FACE TO FACE OF CURB, UNLESS OTHERWISE NOTED.
2. SEE PLAN AND PROFILE SHEETS 8 & 9 FOR PAVING DETAILS ON INWOOD ROAD.
3. SEE TYPICAL SECTIONS FOR CONSTRUCTION JOINT DETAIL ON LANDMARK PLACE
4. INSTALL LANDSCAPE PAVERS IN MEDIAN ON LANDMARK PLACE FROM STA. 48+31.63 TO STA. 48+64.29 AND STA. 49+09.37 TO STA. 49+31.18. SEE MISCELLANEOUS DETAILS.

100% REVIEW



PLAN AND PROFILE

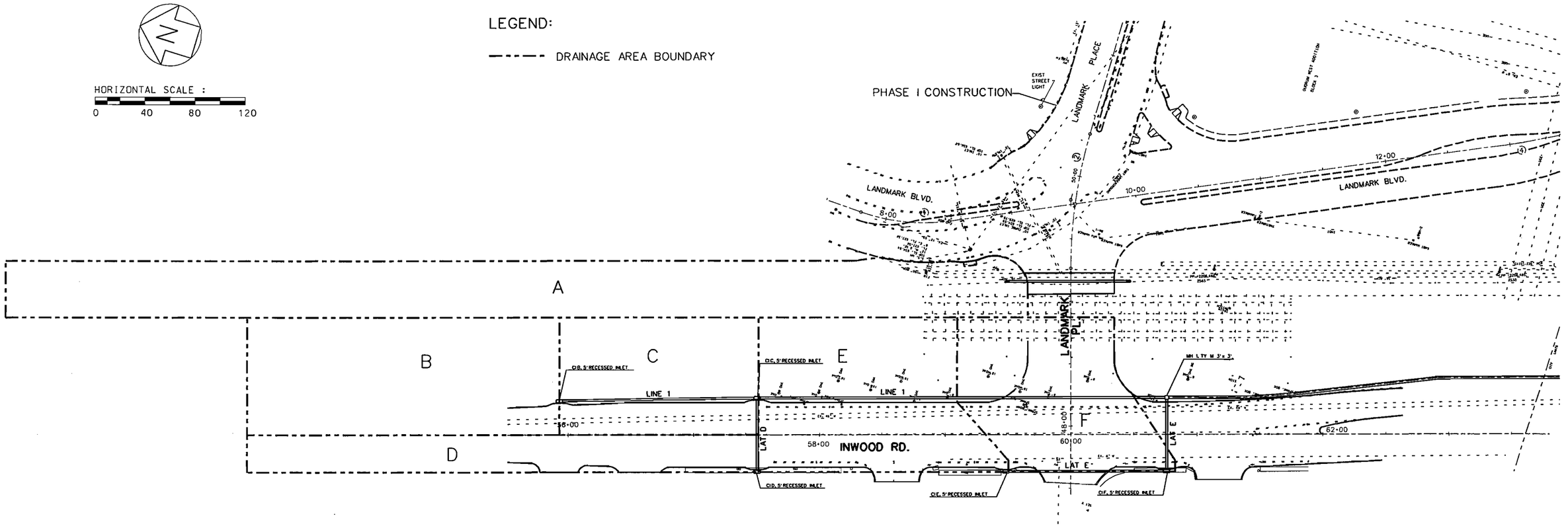
INWOOD CONNECTION

STA. 47+93.15 TO STA. 49+22.70

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
W.L.	C.W.W.	3/01	1"=40' H 1"=4' V			9



RUNOFF COMPUTATIONS

DA ID	TOTAL AREA AC	Total CA	WEIGHTED C	SUB-AREA PAVING C=0.95 AC	SUB-AREA COMMERCIAL C=0.95 AC	SUB-AREA RAILROAD YARD C=0.40 AC	Tc Min.	I-25 IN/HR	Q-25 CFS
A	0.847	0.339	0.40			0.847	15	7.77	2.63
B	0.536	0.284	0.53	0.126		0.410	15	7.77	2.21
C	0.341	0.194	0.57	0.105		0.236	15	7.77	1.51
D	0.280	0.266	0.95	0.219	0.060		15	7.77	2.06
E	0.481	0.314	0.65	0.206	0.015	0.260	15	7.77	2.44
F	0.378	0.314	0.83	0.289	0.007	0.081	15	7.77	2.44

STORM SEWER COMPUTATIONS

LINE	FROM	TO	DRAINAGE AREA NO	TOTAL D.A. (AC)	TOTAL C A	LGTH (FT)	TIME OF CONCENTRATION (MINUTES) ALONG SEWER LINE	INLET TIME	USED IN DES	FREQ (YRS)	I-25 (IN/HR)	Q-25 (CFS)	DESIGN DIA. (IN)	DESIGN SLOPE % PIPE	DESIGN SLOPE % H.G.	DESIGN CAP. (CFS)	DESIGN VEL. (FPS)	REMARKS
LINE 1	CIB	CIC	B	0.54	0.28	157.08			15.0	25	7.77	2.20	18	0.82	627.55	10.30	4.73	
	CIC	MH 1	B-D	1.16	0.74	326.00			15.0	25	7.77	5.78	18	0.86	627.49	10.53	5.94	
	MH 1	EX. MH	B-F	2.02	1.37	508.99			15.0	25	7.77	10.66	24	0.34	626.65	14.29	4.93	
															625.69			
LAT D	CID	CIC	D	0.28	0.27	59.33			15.0	25	7.77	2.06	18	0.84	627.51	10.43	4.63	
															627.49			
LAT E	CIE	CIF	E	0.48	0.31	128.09			15.0	25	7.77	2.44	18	0.46	626.82	7.72	3.83	
	CIF	MH 1	E-F	0.86	0.63	59.33			15.0	25	7.77	4.88	18	0.73	626.76	9.72	5.52	
															626.65			

100% REVIEW

INLET COMPUTATIONS

INLET NO.	LOCATION	RUNOFF COMPUTATIONS DA NO.	CA	TIME OF CONCENTRATION ACTUAL (MIN)	TIME OF CONCENTRATION DESIGN (MIN)	DESIGN FREQ. (YRS)	I (IN/HR)	Qa (CFS)	CARRY OVER (CFS)	TOTAL Qa (CFS)	CURB INLET DESIGN Z	Z/N	S (%)	Y (FT)	PONDED WIDTH Y+Z (FT)	A (FT)	QI (CFS)	La+Qa/QI	L (FT)	L/La	A/Y	Q/Qa	Q (CFS)	CARRY OVER (CFS)	REMARKS
B	55+93.00, 25.55' LT	B	0.284		15.0	25	7.77	2.20	0.00	2.20	50	3846	0.80	0.19	9.4	0.42	0.65	3.4	5	1.47	2.25	1.00	2.20	0.00	
C	57+50.00, 28.00' LT	C	0.194		15.0	25	7.77	1.51	0.00	1.51	50	3846	0.80	0.16	8.1	0.42	0.62	2.4	5	2.06	2.59	1.00	1.51	0.00	
D	57+50.00, 28.00' RT	D	0.266		15.0	25	7.77	2.06	0.00	2.06	50	3846	0.80	0.18	9.1	0.42	0.64	3.2	5	1.56	2.30	1.00	2.06	0.00	
E	59+48.00, 28.00' RT	E	0.314		15.0	25	7.77	2.44	0.00	2.44	50	3846	1.18	0.18	9.0	0.42	0.64	3.8	5	1.31	2.32	1.00	2.44	0.00	
F	60+76.00, 27.63' RT	F	0.314		15.0	25	7.77	2.44	0.00	2.44	50	3846	1.18	0.18	9.0	0.42	0.64	3.8	5	1.31	2.33	1.00	2.44	0.00	

DRAINAGE AREA MAP

INWOOD ROAD

DRAINAGE AREA MAP

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
W.L.	C.W.W.	3/01	1"=80'H			10

File: DAM

BEGIN CULVERT A
18" RCP, CLASS IV
SLOPPED END HDWL.
STA. 49+16.00, 40.50' LT
FL = 632.37

END CULVERT A
18" RCP, CLASS IV
SLOPPED END HDWL.
STA. 49+16.00, 47.50' RT
FL = 631.37

CULVERT A - 18" RCP ON 1.00%

LANDMARK PL.

HORIZONTAL SCALE :
0 10 20 30 40 50 60

VERTICAL SCALE :
0 1 2 3 4 5 6

PROPOSED
2-4" BELLED-END, CLASS 200
OR SCHEDULE 40 P.V.C. SLEEVE
FOR FUTURE IRRIGATION

CIB, 5' RECESSED INLET
STA. 55+93.00, 25.55' LT
TOP EL = 634.50
FL = 630.00

CIC, 5' RECESSED INLET
STA. 57+50.00, 28.00' LT
TOP EL = 633.21
FL = 628.71

LINE 1 — 18" RCP, CLASS III

LINE 1 — 18" RCP, CLASS III

MH-1, TY-M 3'x3'
STA. 60+76.00, 29.67' LT
TOP EL = 630.97
FL (18") = 625.92
FL (24") = 625.42

MATCH LINE STA. 60+85.00

56+00

58+00

INWOOD RD.

48+00

60+00

EX. 48" W

18" RCP, CLASS III — LAT D

LAT E — 18" RCP, CLASS III

EX. 8" W

CID, 5' RECESSED INLET
STA. 57+50.00, 28.00' RT
TOP EL = 633.21
FL = 629.21

CIE, 5' RECESSED INLET
STA. 59+48.00, 28.00' RT
TOP EL = 630.94
FL = 626.92

CIF, 5' RECESSED INLET
STA. 60+76.00, 27.63' RT
TOP EL = 629.86
FL = 626.33

NOTES:

1. ALL DIMENSIONS ARE FACE TO FACE OF CURB, UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO VERIFY LOCATION OF 48" WATER MAIN AT LATERAL D AND E CROSSINGS.
3. INDICATE TO CUT AND PLUG EXISTING IRRIGATION SYSTEM AT LANDMARK PLACE, AS DIRECTED BY OWNER.

100% REVIEW

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CIB, 5' RECESSED INLET
STA. 55+93.00, 25.55' LT
TOP EL = 634.50
FL = 630.00

CIC, 5' RECESSED INLET
STA. 57+50.00, 28.00' LT
TOP EL = 633.21
FL = 628.71

EXISTING GRADE @ C.L. OF INWOOD RD.

PROPOSED GRADE @ TOP OF EAST CURB

18" RCP @ 0.82%

18" RCP @ 0.86%

MH-1, TY-M 3'x3'
STA. 60+76.00, 29.67' LT
TOP EL = 630.97
FL (18") = 625.92
FL (24") = 625.42

EXISTING GRADE @ CL OF INWOOD RD.

MATCH LINE STA. 60+85.00

634 / 632 / 630 / 628 / 626

CID, 5' RECESSED INLET
STA. 57+50.00, 28.00' RT
TOP EL = 633.21
FL = 629.18

CIC, 5' RECESSED INLET
STA. 57+50.00, 28.00' LT
TOP EL = 633.21
FL = 628.71

LINE 1

EXISTING

CIE, 5' RECESSED INLET
STA. 59+48.00, 28.00' RT
TOP EL = 630.94
FL = 626.92

CIF, 5' RECESSED INLET
STA. 60+76.00, 27.63' RT
TOP EL = 629.86
FL = 626.33

MH-1, TY-M 3'x3'
STA. 60+76.00, 28.00' LT
TOP EL = 630.97
FL (18") = 625.92
FL (24") = 625.42

18" RCP @ 0.84%

18" RCP @ 0.46%

18" RCP @ 0.73%

632 / 630 / 628 / 626

LAT D

EXISTING 48" W

LAT E

EXISTING 48" W

56+00 / 57+00 / 58+00 / 59+00 / 60+00

File : DRN2

DRAINAGE PLAN AND PROFILE

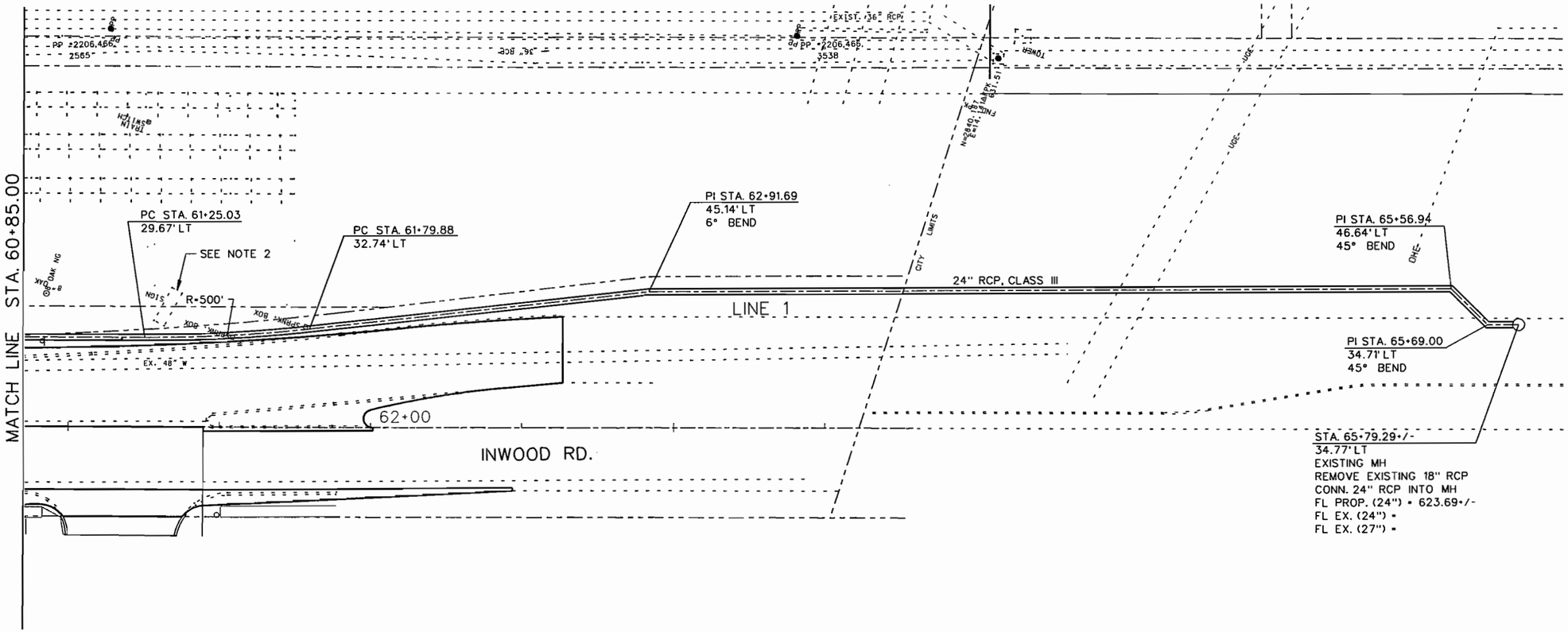
INWOOD CONNECTION

SHEET 1 OF 2

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
W.L.	C.W.W.	3/01	1"=40' H 1"=4' V			11



NOTES:

1. ALL DIMENSIONS ARE FACE TO FACE OF CURB, UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL PROTECT EXISTING "TOWN OF ADDISON" SIGN AND FOUNDATION AND REPAIR IT AT HIS/HER OWN EXPENSE SHOULD DAMAGE OCCURS.

100% REVIEW

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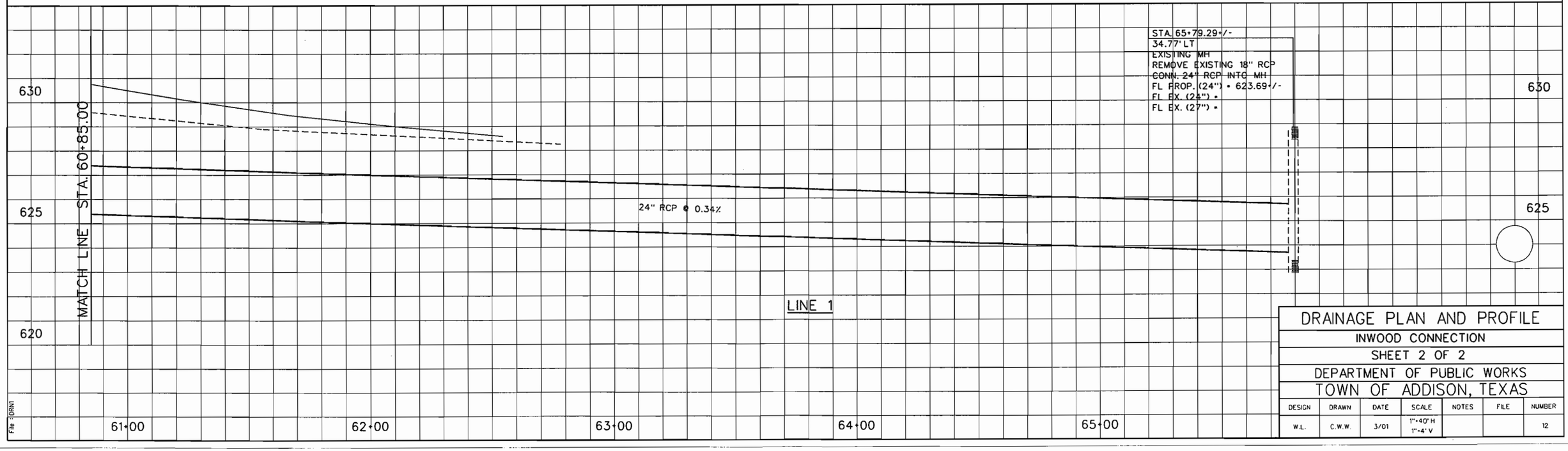


DRAINAGE PLAN AND PROFILE

INWOOD CONNECTION

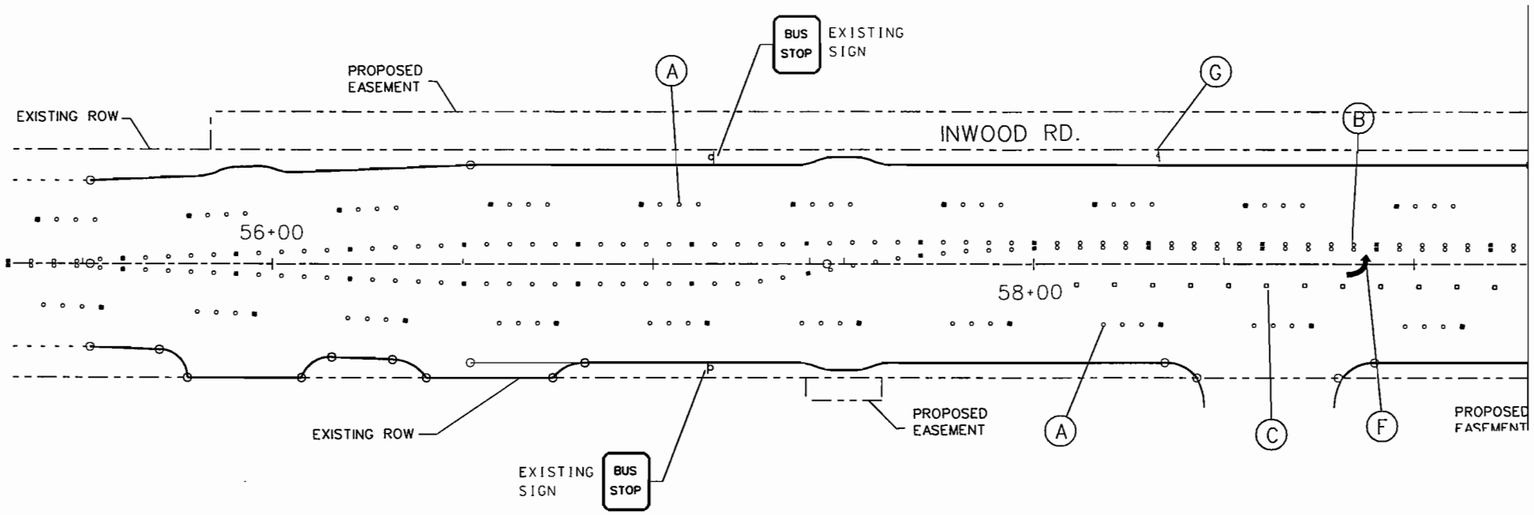
SHEET 2 OF 2

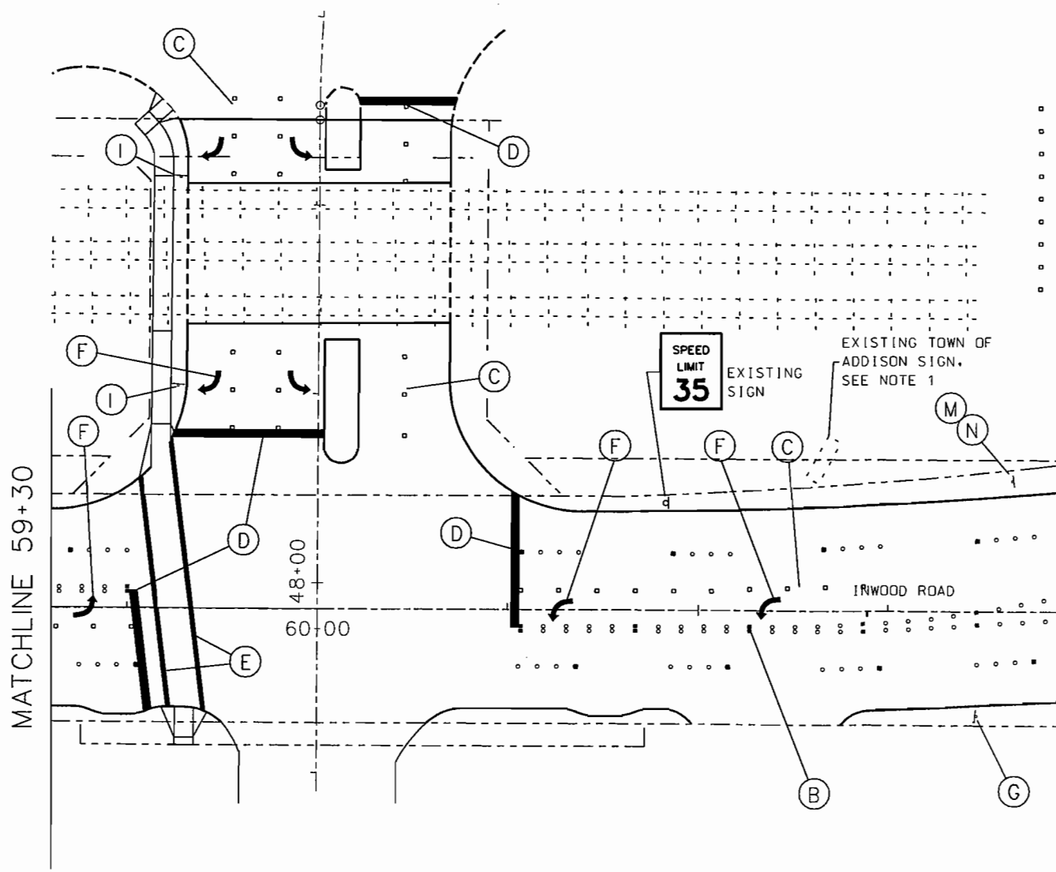
DEPARTMENT OF PUBLIC WORKS

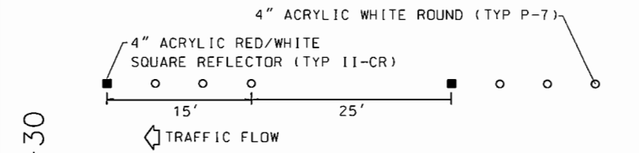
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
W.L.	C.W.W.	3/01	1"=40' H 1"=4' V			12

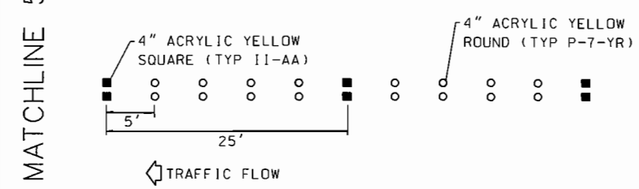
File = DRN1



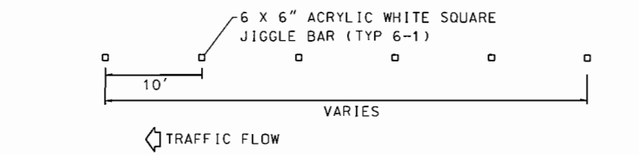




(A) LANE LINES DETAIL



(B) CENTER LINE DETAIL



(C) LEFT TURN BAY DETAIL

NOTE:

1. CONTRACTOR SHALL PROTECT EXISTING TOWN OF ADDISON SIGN AND FOUNDATION AND REPAIR IT AT HIS/HER EXPENSE. SHOULD ANY DAMAGE OCCURS.

PAVEMENT MARKINGS

A	LANE LINES
B	CENTER LINE
C	LEFT TURN CHANNELIZATION
D	24" WHITE THERMOPLASTIC STOP BAR
E	12" WHITE THERMOPLASTIC CROSSWALK
F	WHITE THERMOPLASTIC ARROWS

SIGNS

G	R2-4 - SPEED LIMIT (35)
H	R3-7L - LEFT LANE MUST TURN LEFT
I	R3-7R - RIGHT LANE MUST TURN RIGHT
J	R4-7 - KEEP RIGHT
K	W1-1R - RIGHT TURN
L	W1-1L - LEFT TURN
M	W3-3 - SIGNAL AHEAD
N	W3-3P - SIGNAL AHEAD PLAQUE

HORIZONTAL SCALE :

0 10 20 30 40 50 60

100% REVIEW

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SIGNING AND PAVEMENT MARKINGS

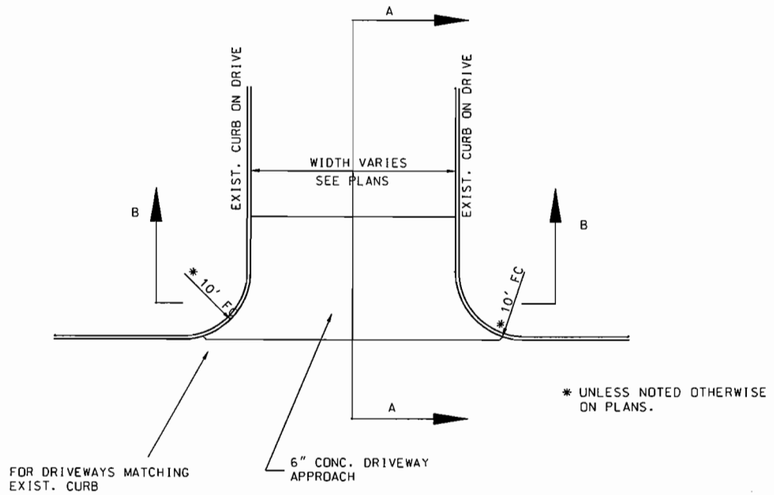
INWOOD CONNECTION

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

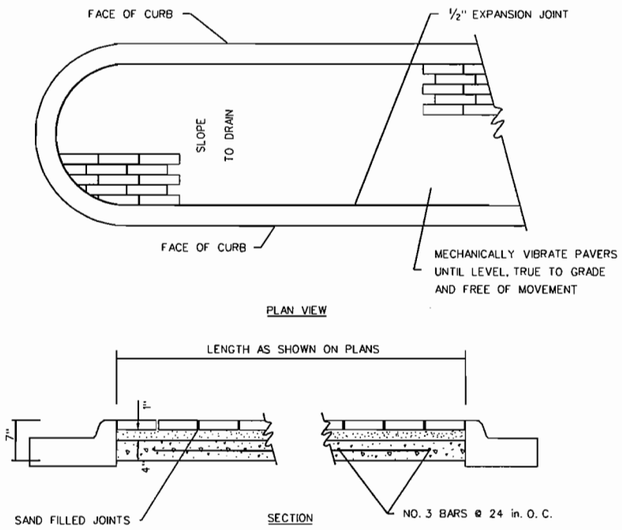
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
S.L.K.	C.W.W.	3/01				13

File : pav-mark1



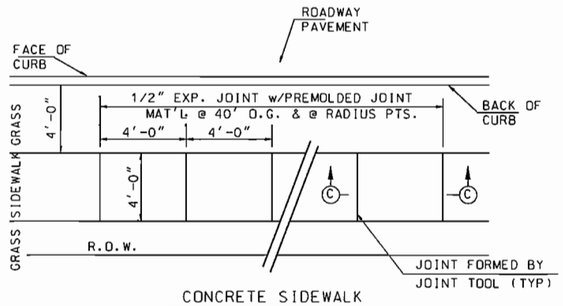
DRIVEWAY DETAIL

NOT TO SCALE



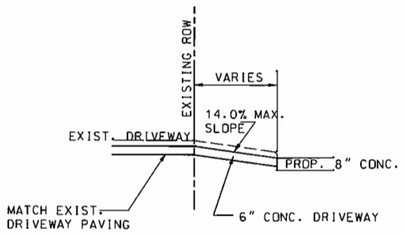
LANDSCAPE PAVER DETAILS

NOT TO SCALE



CONCRETE SIDEWALK

NOT TO SCALE

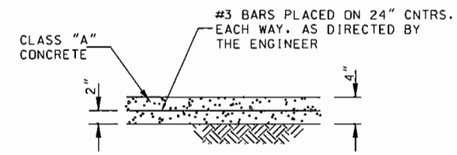


SECTION A - A

NOT TO SCALE

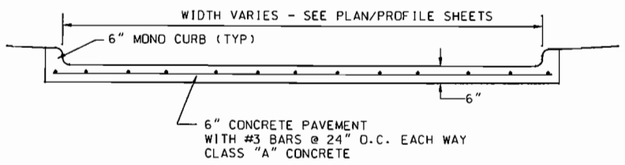
LANDSCAPE PAVERS:

1. LANDSCAPE PAVERS SHALL BE MODULAR CONCRETE PAVERS. AS MANUFACTURED BY PAVESTONE CO., OR EQUAL. PAVERS SHALL HAVE A COMPRESSIVE STRENGTH GREATER THAN 8000 PSI. A WATER ABSORPTION MAXIMUM OF 5% AND MEET OR EXCEED ASTM C-936. PAVERS SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS SHOWN IN THE PLANS AND PLACED IN A RUNNING BOND PATTERN PARELLEL TO THE CENTERLINE OF THE STREET. COLOR AND PATTERN SHALL BE APPROVED BY OWNER. SUPPORT SLAB AND SAND CUSHION SHALL BE SUBSIDIARY TO LANDSCAPE PAVERS.



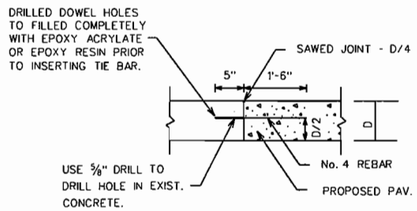
SEC. C - C

NOT TO SCALE



SECTION B - B

NOT TO SCALE



LONGITUDINAL TIE BAR

NOT TO SCALE

SIDEWALK NOTES:

1. THE CONTRACTOR SHALL PROVIDE TOOLED JOINTS USING A JOINTING TOOL APPROVED BY THE ENGINEER.

2 . CONTRACTOR SHALL PROVIDE ½" PREMOLDED EXP. JOINT MATERIAL AT THE INTERFACE BETWEEN THE EDGE OF SIDEWALK AND ANY CURB OR WALL.

100% REVIEW

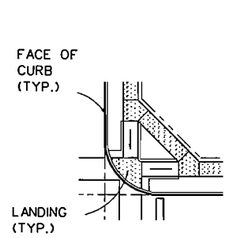
MISCELLANEOUS DETAILS

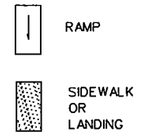
INWOOD CONNECTION

DEPARTMENT OF PUBLIC WORKS
TOWN OF ADDISON, TEXAS

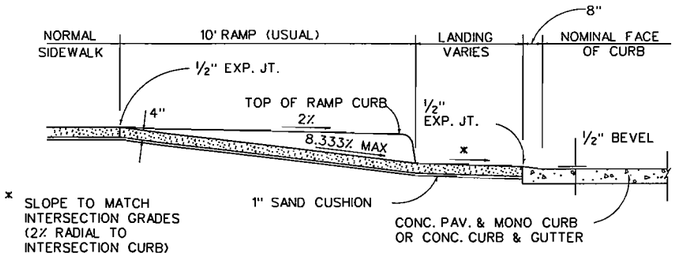
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
RDWY.	S.C.S.	3/01	1"=80'			14

File: RDWY-DET

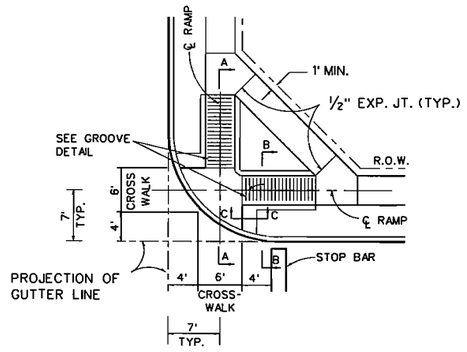




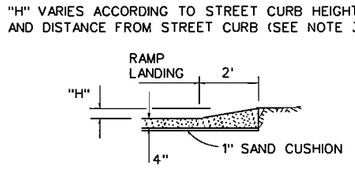
SIDEWALK REMOTE FROM CURB



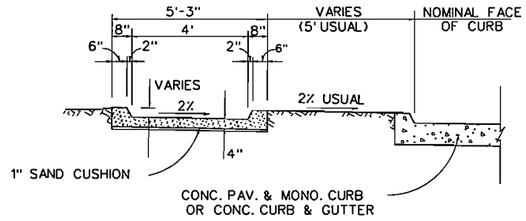
SECTION "A-A"



TYPE "A" RAMP



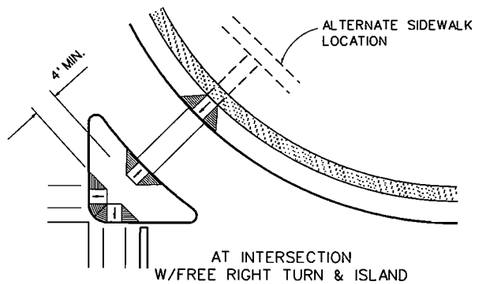
SECTION "C-C"

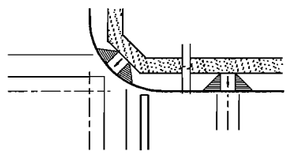


SECTION "B-B"

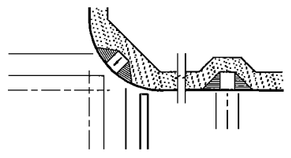
GENERAL NOTES:

1. ALL SIDEWALK RAMPS SHALL BE CONSTRUCTED ACCORDING TO THE ITEM "SIDEWALKS" AND IN COMPLIANCE WITH SIDEWALK DETAILS SHOWN ELSEWHERE IN THE PLANS. IN ADDITION TO GROOVING AS INDICATED, SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE SLOPE OF THE RAMP.
2. SIDEWALK RAMPS, INCLUDING RAMP CURBS AND LANDINGS, WILL BE MEASURED AND PAID FOR AS "CONCRETE SIDEWALK (RAMP)". APPROACH SIDEWALKS WILL BE MEASURED AND PAID FOR AS "CONCRETE SIDEWALK". STREET CURB TRANSITIONS AND CURB BEVELS WILL BE PAID FOR AS "MONO CURB" OR "CONCRETE CURB AND GUTTER".
3. RAMP SLOPE SHALL NOT EXCEED 8.333%. IF NECESSARY, RAMP LENGTHS SHOWN OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER. GRADE OF RAMP CURBS SHALL BE DETERMINED BY PROJECTING 2% SLOPE FROM TOP OF NORMAL STREET CURB, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. TYPE "A" RAMPS SHALL BE PLACED IN THE CORNERS OF ALL INTERSECTIONS, EXCEPT AT INTERSECTIONS WITH FREE TURN LANES AND CHANNELIZATION INSLANDS, UNLESS OTHERWISE SHOWN IN THE PLANS. TYPE "B" RAMPS SHALL BE PLACED AT ALL INTERSECTIONS WITH FREE TURN LANES AND CHANNELIZATION ISLANDS, AT MID-BLOCK LOCATIONS SHOWN IN THE PLANS, AND AT INTERSECTIONS WHERE, IN THE OPINION OF THE ENGINEER, THERE IS NOT SUFFICIENT RIGHT-OF-WAY FOR TYPE "A" RAMPS.
5. ON ALL RAMPS, A 1/2" BEVEL SHALL BE MAINTAINED AT THE GUTTER LINE ACROSS THE RAMP LANDING AREA. THE MINIMUM CURB TRANSITION FROM FULL HEIGHT CURB TO THE 1" BEVEL SHALL BE 2'. PROPOSED RAMP REQUIRES 1" PER FT. MAX. AND 1/4" PER FT. ON THE LANDING.
6. SMALL CHANNELIZATION ISLANDS, WHICH CANNOT MEET THE 4' MINIMUM SPACING REQUIREMENTS FOR CURB RAMPS, SHALL BE CUT THROUGH LEVEL WITH THE SURFACE OF THE STREET.
7. NORMAL GUTTER GRADES SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
8. TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO AS NOT TO OBSTRUCT SIDEWALK RAMPS.
9. CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS.
10. RAMP CURBS AND/OR RAMP SIDE SLOPES SHALL BE COLORED WITH A SHARPLY CONTRASTING STAIN APPROVED BY THE ENGINEER. STAIN WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO THE ITEM, "CONCRETE SIDEWALKS."

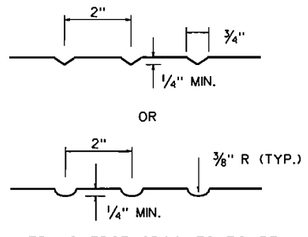




SIDEWALK REMOTE FROM CURB

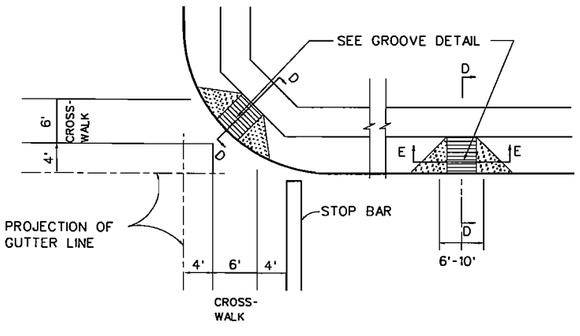


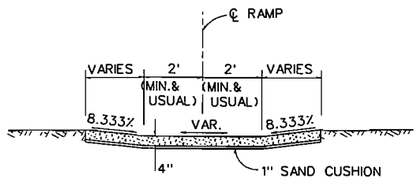
SIDEWALK ADJACENT TO CURB



TRANSVERSE GROOVES TO BE PLACED ALONG LENGTH OF RAMP

GROOVE DETAIL





SECTION "E-E"

TYPICAL LAYOUT & DETAILS - TYPE "B" RAMP

REV. 3/01
REV. 11-29-99

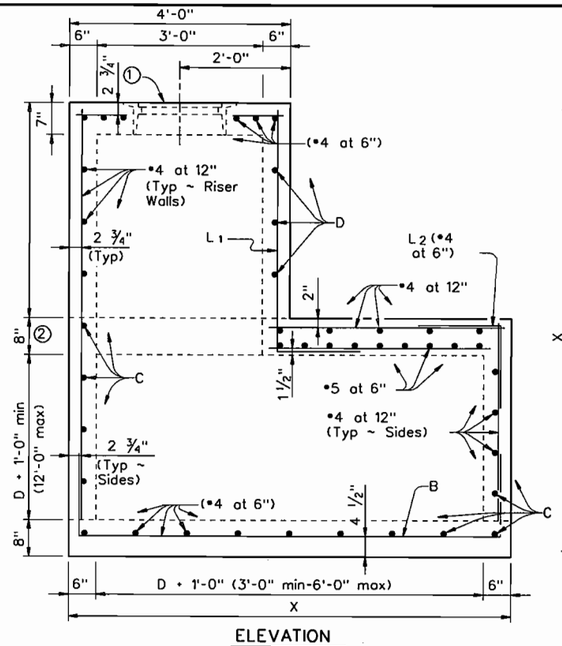
SIDEWALK RAMP DETAILS

SRD-FW-99

FED.RD. DIV.NO.	PROJECT NO.		SHEET NO.
			15
STATE	DIST.	COUNTY	
TEXAS		DALLAS	
CONT.	SECT.	JOB	HIGHWAY NO.

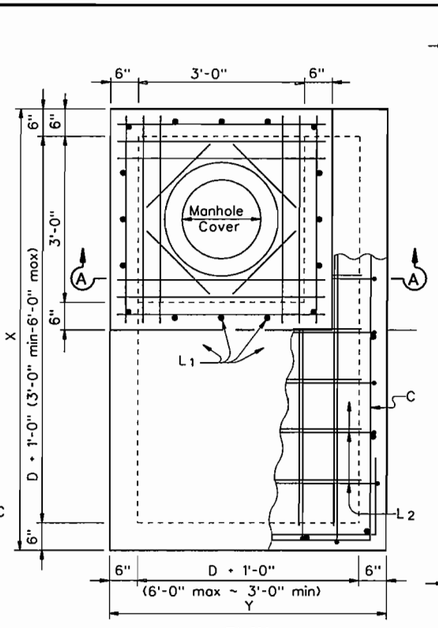
File: SRDFWNEW

File: MH-MESTD

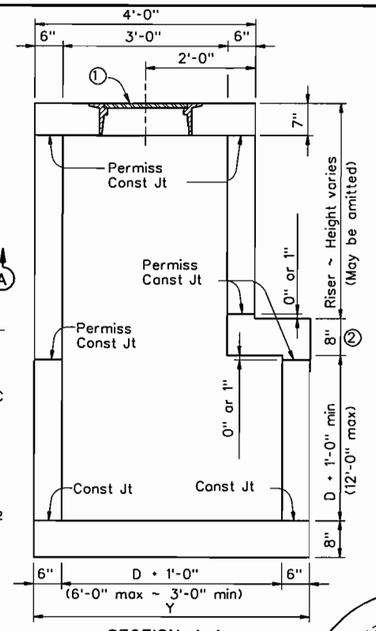


ELEVATION

D = maximum inside diameter of any Pipe entering the side shown or the opposite side



PLAN

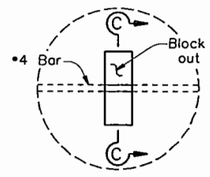


SECTION A-A

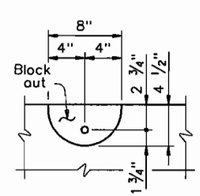
MANHOLE WITH CAST-IN-PLACE RISER

① See Ring and Cover Details

② for 0'-15' of Fill

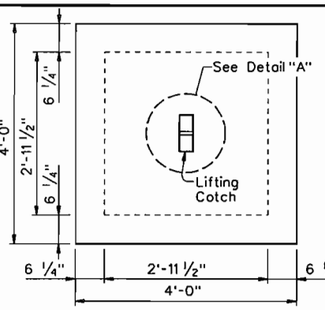


DETAIL "A"

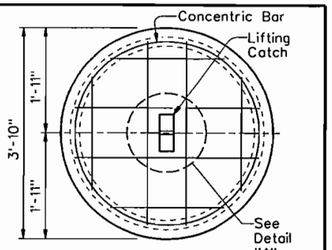


SECTION C-C

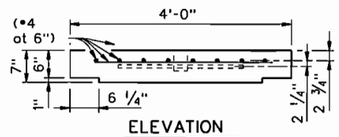
LIFTING CATCH



PLAN

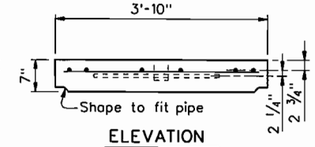


PLAN



ELEVATION

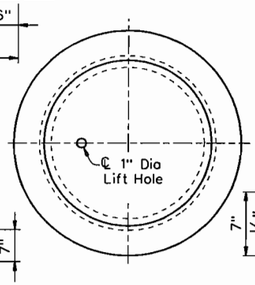
CAST-IN-PLACE RISER COVER

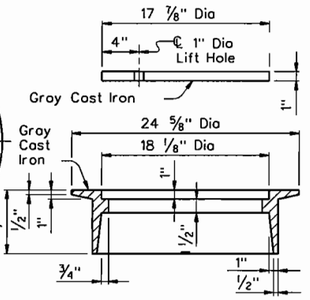


ELEVATION

CONCRETE PIPE RISER COVER

OPTIONAL PRECAST CONCRETE LIFT-OFF COVERS





RING AND COVER DETAILS (TYPE C)

Approximate Weight = 200 lb ③

③ Rings and covers of slightly different dimensions but approximately the same weight may be substituted if approved by the Engineer.

GENERAL NOTES:

Unless otherwise shown in the plans, payment will be made for each manhole of the Type M.

Exposed edges shall be chamfered ¾".

Alternate design drawings bearing the seal of a registered professional engineer will be acceptable for precast construction of the manholes.

Shop drawings will not be required.

The Contractor may with the approval of the Engineer furnish manholes of equivalent structural design.

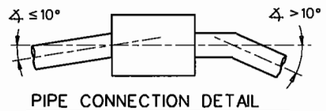
In areas of conflict between reinforcing steel, blockouts, pipes, anchor bolts or other reinforcing steel, the reinforcement shall be bent or adjusted to clear as directed by the Engineer.

The riser may be constructed of reinforced concrete as shown or of Reinforced Concrete Pipe , Class III, in accordance with ASTM Designation C-76. If pipe is used, joints shall conform to the item "Reinforced Concrete Pipe Culverts". Precast Concrete Lift Off Cover may be substituted for "Ring and Cover".

The riser, either cast-in-place or concrete pipe, may be located in any corner.

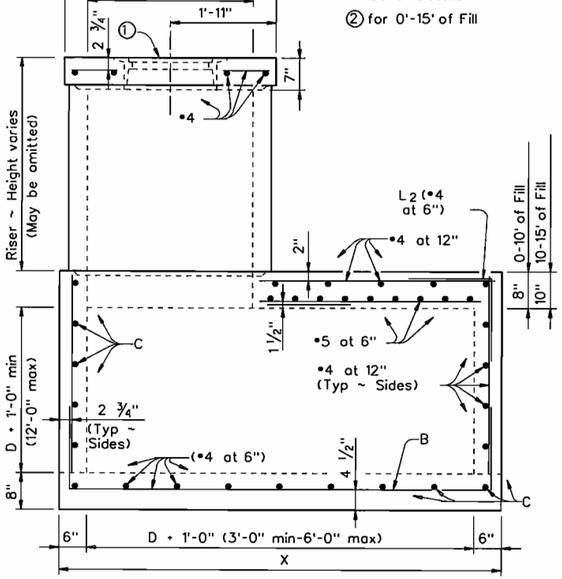
All reinforcing steel shall be •4 unless otherwise noted.

Pipes may enter any or all walls. The maximum size of pipe that can be accomodated is 60". More than one pipe may enter a side, subject to the maximum box dimension shown. The clear distance between adjacent pipes should be 9" minimum.



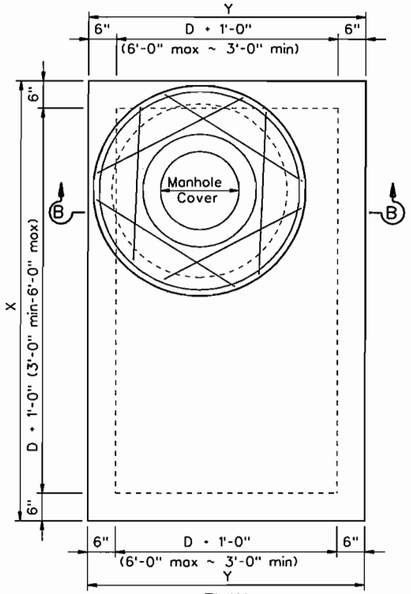
PIPE CONNECTION DETAIL

Connecting pipes should enter within 10° of normal to inlet wall. If necessary, pipe elbow or curved approach alignment should be used to stay within this limit.

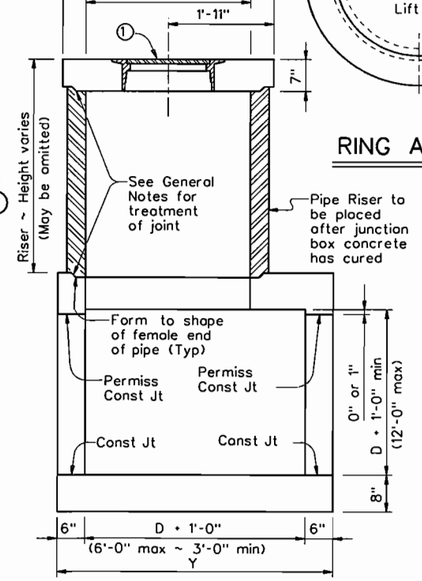


ELEVATION

D = maximum inside diameter of any Pipe entering the side shown or the opposite side

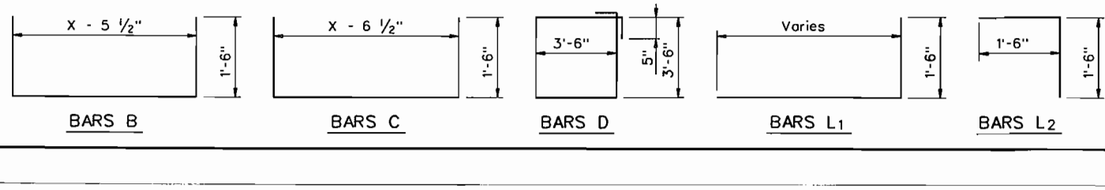


PLAN



SECTION B-B

OPTIONAL MANHOLE WITH CONCRETE PIPE RISER



LEVELS DISPLAYED (LV=1,2 for English)

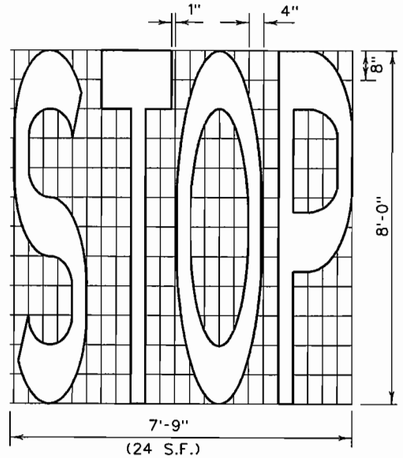
1 2 52

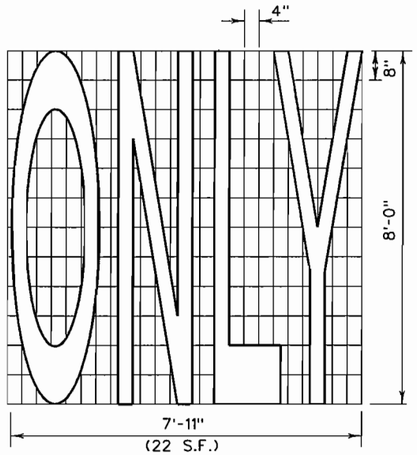
Texas Department of Transportation
Design Division (Bridge)

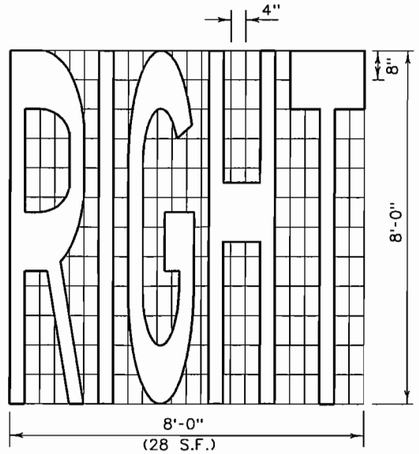
MANHOLE TYPE M
(JUNCT ION BOX WI TH ACCESS)

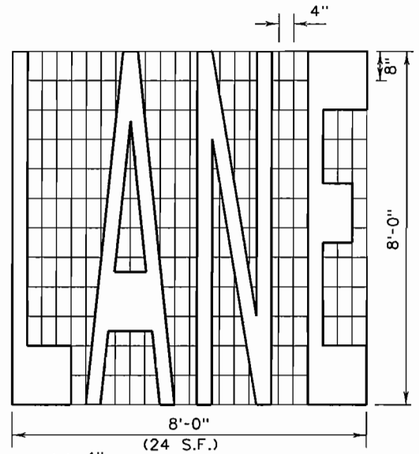
MH-M

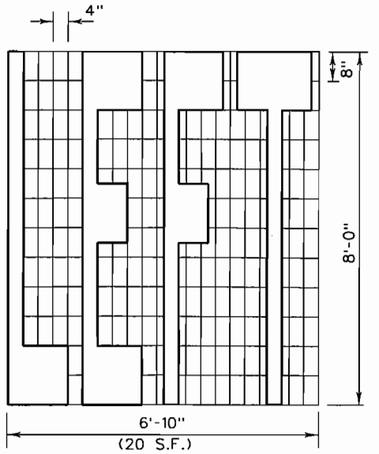
FILE: mh-mestd.dgn	DN: TXDOT	CK: TER	DW: MCB	CK: TER	STD: B483
ORIG DATE: SEPTEMBER 1996	DIST	FED REG	FEDERAL AID PROJECT	•	SHEET
REVISIONS		6			16
	COUNTY		CONTROL	SECT	JOB	HIGHWAY

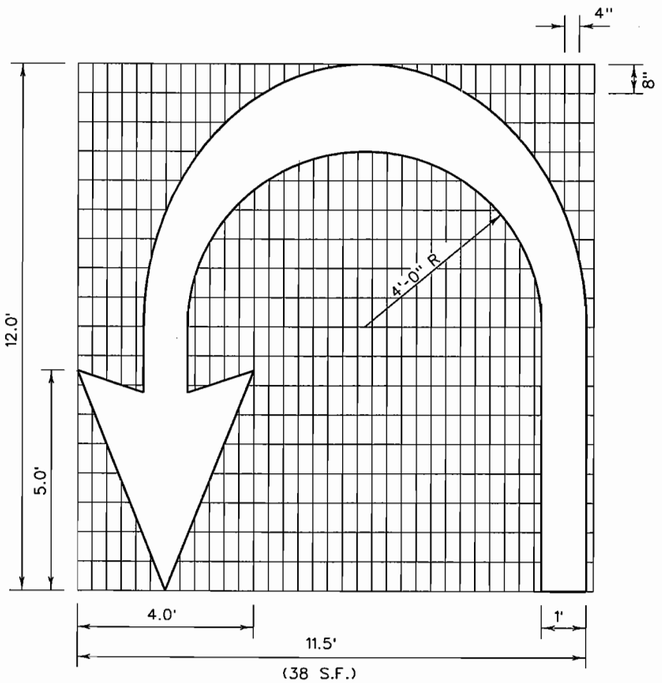


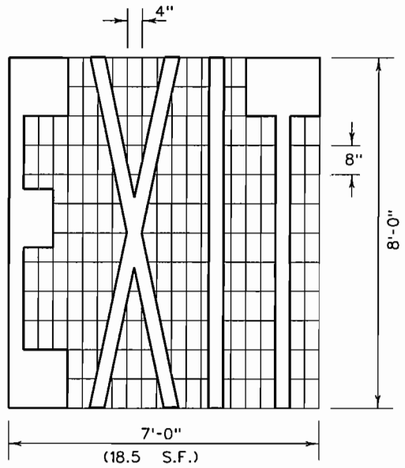


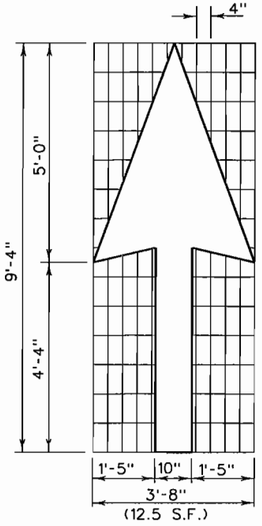


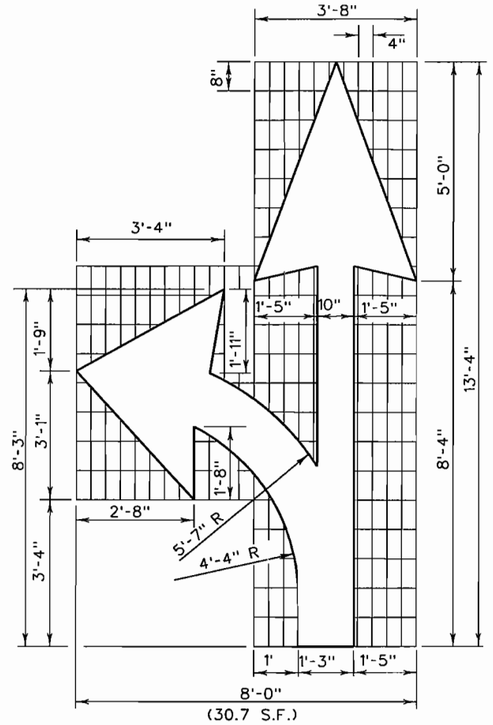


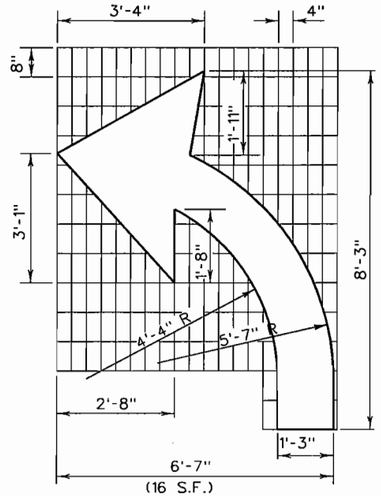












TEXAS DEPARTMENT OF TRANSPORTATION

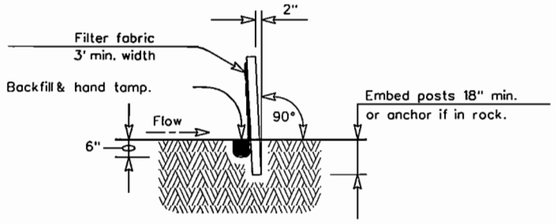
PAVEMENT MARKINGS

(WORDS and ARROWS) (FTW)

PM-WA(FTW) SHEET 1 of 1

DRAWN	FED.RD. DIV.NO.	STATE	STATE PROJECT NO.				HIGHWAY NO.
CHECKED							
TRACED	STATE DIST.NO.	COUNTY		CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
CHECKED							17

File: WORDARRO



SECTION A-A

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

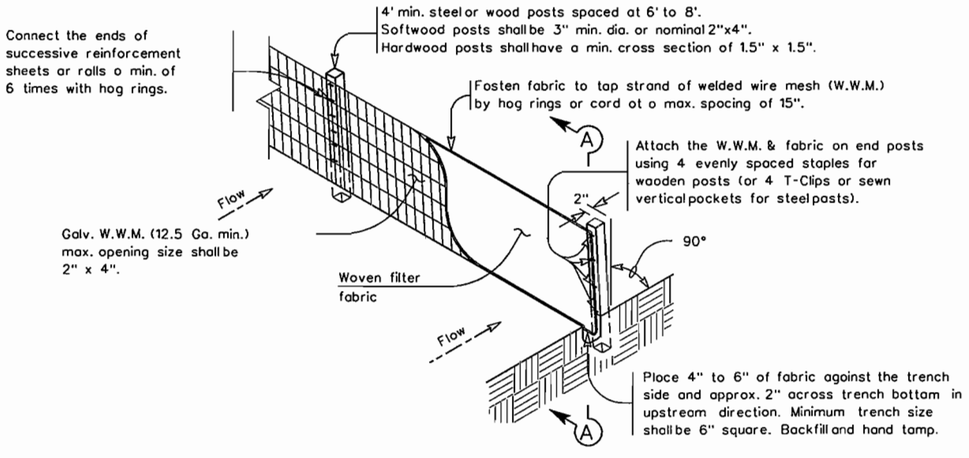
Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT . Sediment control fence is not recommended to control erosian from a drainage orea larger than 2 acres.

PLAN SHEET LEGEND

Sediment Control Fence —— SCF ——

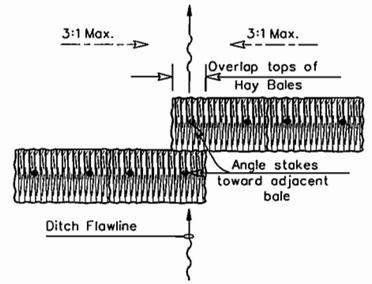
GENERAL NOTES

1. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

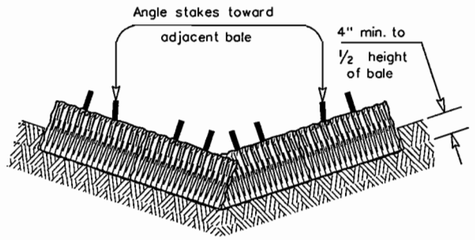


TEMPORARY SEDIMENT CONTROL FENCE

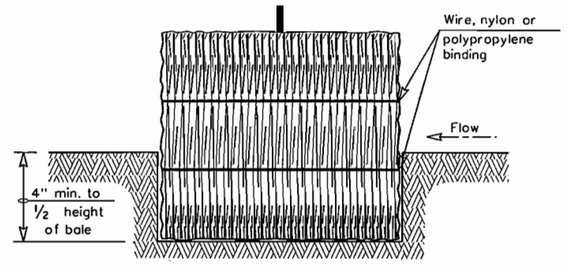
—— SCF ——



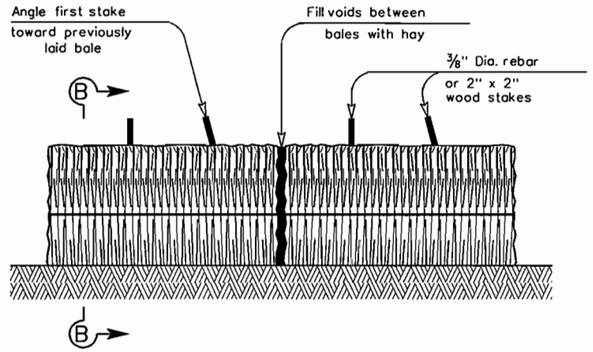
PLAN VIEW



PROFILE VIEW



SECTION B-B



BALED HAY FOR EROSION CONTROL

—— BH ——

PLANS SHEET LEGEND

Baled Hoy —— BH ——

BALED HAY USAGE GUIDELINES

A Baled Hay installation may be constructed near the downstream perimeter of a disturbed area olong a contour to intercept sediment from overland runoff. A two year storm frequency may be used to calculate the flow rate to be filtered. The installation should be sized to filter a maximum flow thru rate of 5 GPM/FT^2 of cross sectianal area. Baled hay may be used at the following locations:

1. Where the runoff approaching the boled hay flows over disturbed soil for less than 100'. If the slope of the disturbed soil exceeds 10%, the length of slope upstream the baled hay should be less than 50'.
2. Where the installation will be required for less than 3 months.
3. Where the contributing drainage area is less than ½ acre.

For Baled Hay installations in small ditches, the additional following considerotions apply:

1. The ditch sideslopes should be graded as flat as possible to maximize the drainage flowrate thru the hay.
2. The ditch should be graded large enough to contain the overtopping drainage when sediment has filled to the tap of the baled hay.

Bales should be replaced usually every 2 months or more often during wet weather when loss of structural integrity is accelerated.

GENERAL NOTES

1. Hay bales shall be a minimum of 30" in length ond weigh a minimum of 50 Lbs.
2. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetable matter.
3. Hay bales shall be embedded in the soil a minimum of 4" and where possible ½ the height of the bale.
4. Hay boles shall be placed in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
5. Hay bales shall be securely anchored in place with ⅜" Dia. rebar or 2" x 2" wood stakes, driven through the bales. The first stake shall be angled towards the previously laid bale to force the bales together.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

TEXAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

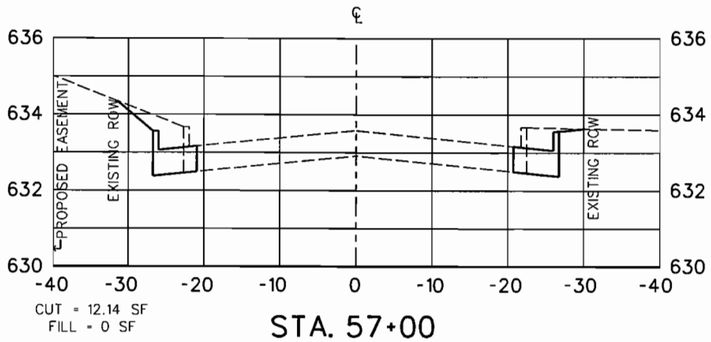
FENCE & BALED HAY

EC(1)-93

MODIFICATIONS	FED.RD. DIV.NO.	STATE	FEDERAL AID PROJECT NO.				SHEET NO.
	6	TEXAS					18
	STATE DIST.NO.	COUNTY		CONT.	SECT.	JOB	HIGHWAY NO.

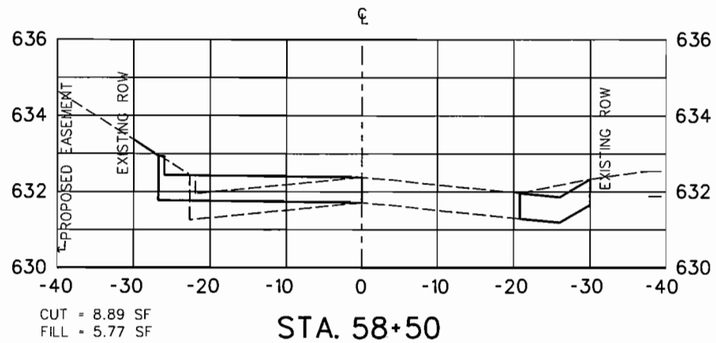
File: EC193

HIGHWAY DESIGN DIVISION (D-8)



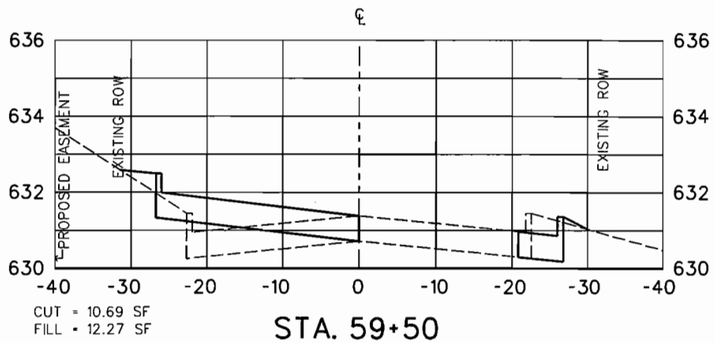
CUT = 12.14 SF
FILL = 0 SF

STA. 57+00



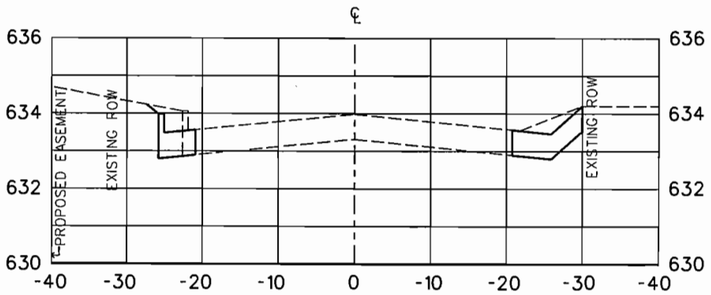
CUT = 8.89 SF
FILL = 5.77 SF

STA. 58+50



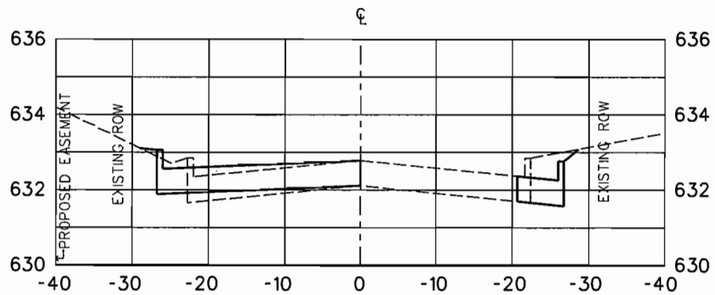
CUT = 10.69 SF
FILL = 12.27 SF

STA. 59+50



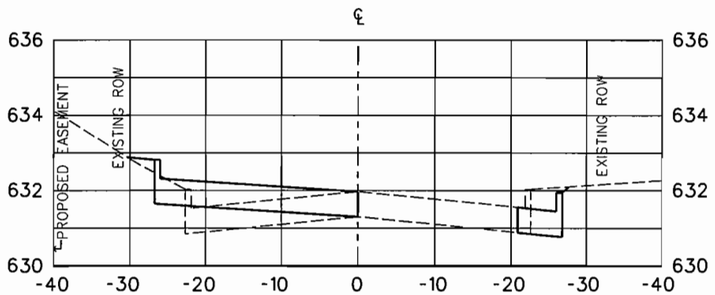
CUT = 12.11 SF
FILL = 0 SF

STA. 56+50



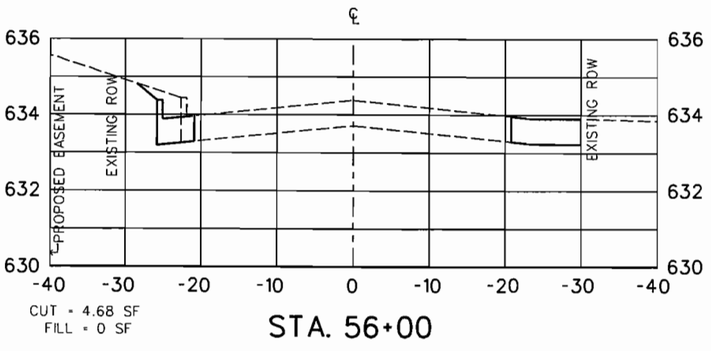
CUT = 10.45 SF
FILL = 3.17 SF

STA. 58+00



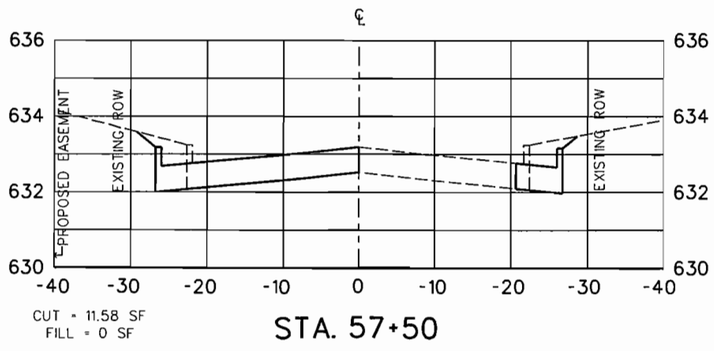
CUT = 11.11 SF
FILL = 9.24 SF

STA. 59+00



CUT = 4.68 SF
FILL = 0 SF

STA. 56+00



CUT = 11.58 SF
FILL = 0 SF

STA. 57+50

HORIZONTAL SCALE :

0 10 20 30

VERTICAL SCALE :

0 2 4 6

100% REVIEW

CROSS SECTIONS

INWOOD CONNECTION

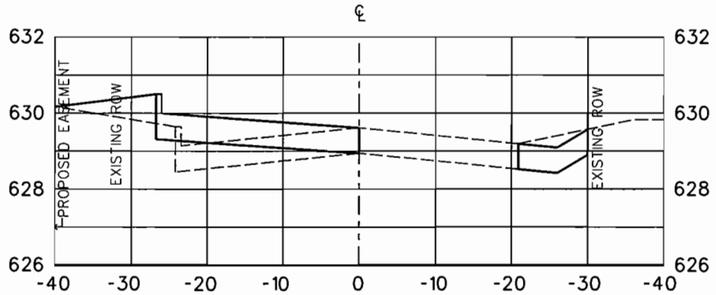
STA 56+00 TO STA 59+50

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

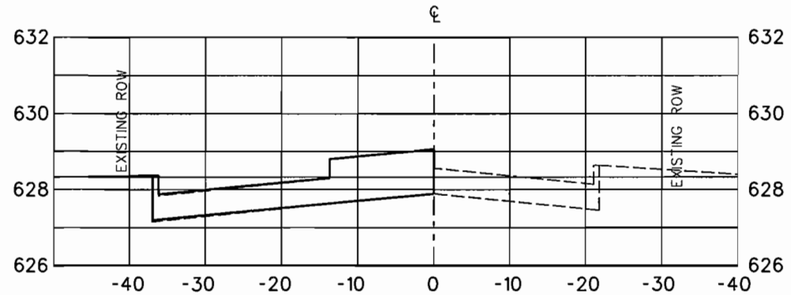
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
S.L.K.	C.W.W. E.C.S.	3/01				19

File : CROSS-SEC-1



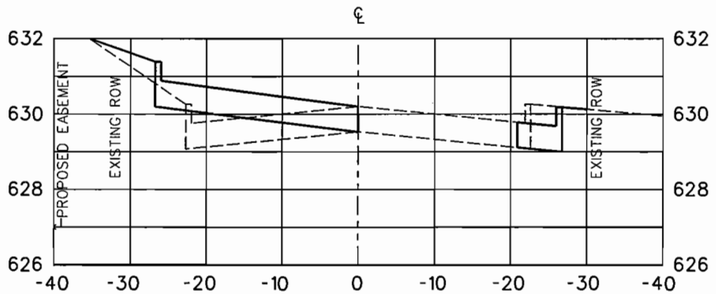
CUT = 4.65 SF
FILL = 11.45 SF

STA. 61+00



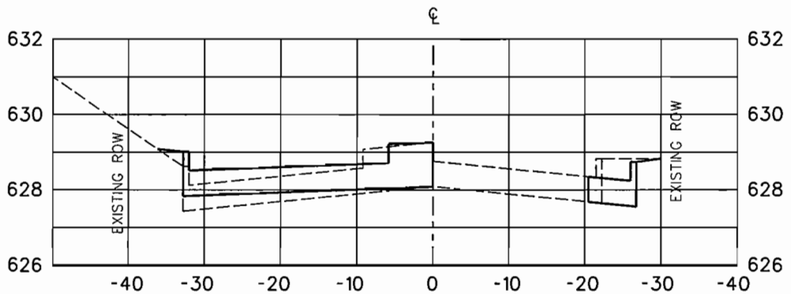
CUT AREA - 0 FT2
FILL AREA - 0 FT2

STA. 62+50



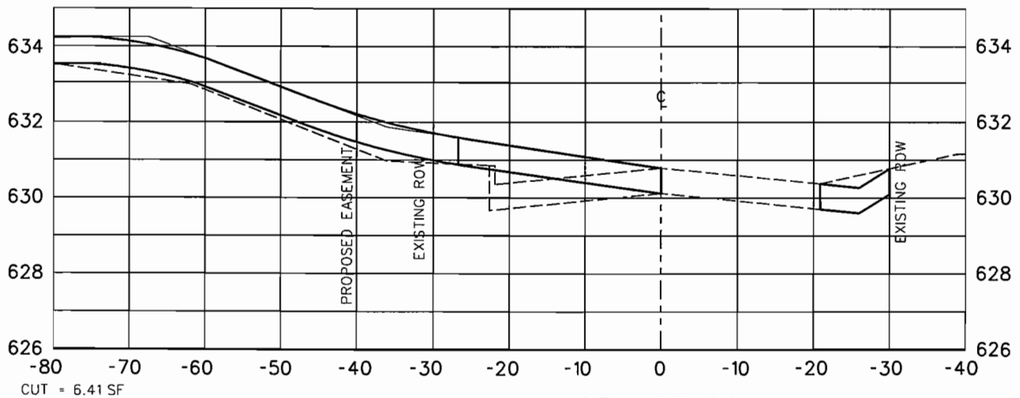
CUT = 10.94 SF
FILL = 12.75 SF

STA. 60+50



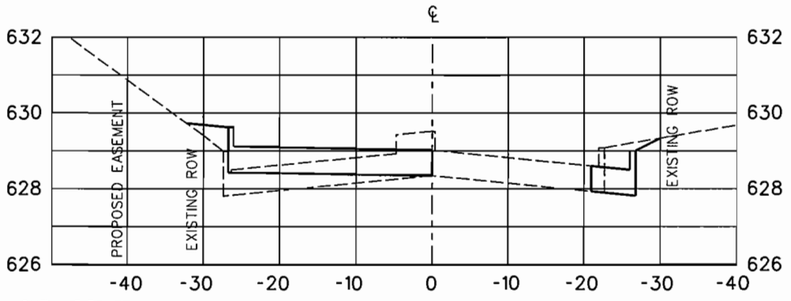
CUT = 5.67 SF
FILL = 7.25 SF

STA. 62+00



CUT = 6.41 SF
FILL = 12.37 SF

STA. 60+00



CUT = 5.59 SF
FILL = 6.07 SF

STA. 61+50

HORIZONTAL SCALE :

0 10 20 30

VERTICAL SCALE :

0 2 4 6

100% REVIEW

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CROSS SECTIONS

INWOOD CONNECTION

STA 60+00 TO STA 62+50

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
S.L.K.	S.L.K.	3/01				20

File : CROSS-SEC-2

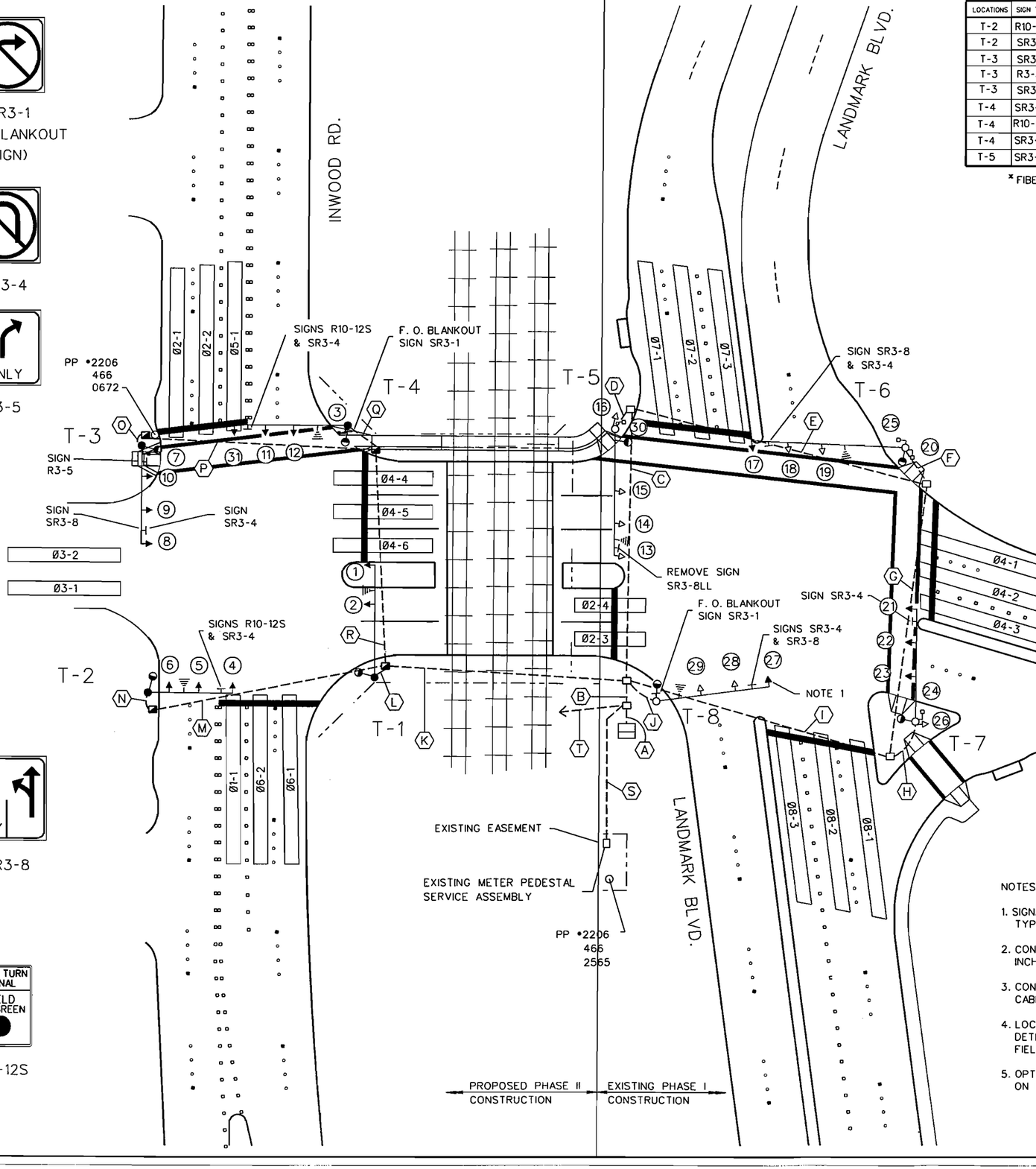
SR3-1
(F.O BLANKOUT
SIGN)

SR3-4

R3-5

SR3-8

R10-12S



SIGN SUMMARY							
LOCATIONS	SIGN TYPE	DESCRIPTION	SIZE	LOCATIONS	SIGN TYPE	DESCRIPTION	SIZE
T-2	R10-12S	LEFT TURN YIELD	30" x 36"	T-6	SR3-8	LANE ASSIGNMENT	36" x 36"
T-2	SR3-4	NO U-TURN	30" x 30"	T-6	SR3-4	NO U-TURN	EXISTING
T-3	SR3-4	NO U-TURN	30" x 30"	T-7	SR3-4	NO U-TURN	30" x 30"
T-3	R3-5	RIGHT ONLY	30" x 36"	T-8	SR3-1*	NO RIGHT TURN	30" x 30"
T-3	SR3-8	LANE ASSIGN.	36" x 36"	T-8	SR3-4	NO U-TURN	EXISTING
T-4	SR3-4	NO U-TURN	30" x 30"	T-8	SR3-8	LANE ASSIGNMENT	EXISTING
T-4	R10-12S	LEFT TURN YIELD	30" x 36"				
T-4	SR3-1*	NO RIGHT TURN	30" x 30"				
T-5	SR3-4	NO U-TURN	EXISTING				

*FIBEROPTIC BLANKOUT SIGN

N

HORIZONTAL SCALE : 1" = 40'

0 10 20 30 40 50 60

LEGEND

- FIRE HYORANT
- EXISTING TRAFFIC SIGNAL ON ARM W/POLE
- EXISTING PEDESTRIAN SIGNAL WITH BUTTONS, AND R10-4b SIGNS
- EXISTING PULL BOX
- POWER POLE
- LIGHT STANDARD WITH PHOTOCELL
- RIGHT-OF-WAY
- ZONE DETECTOR (VIDEO)
- OPTICOM DETECTOR
- PROPOSED TRAFFIC SIGNAL ON ARM W/POLE
- VIDEO DETECTION CAMERA
- SIGNAL HEAD IDENTIFIER (1)
- SIGNAL CONDUIT
- CONDUIT IDENTIFIER (Q)
- INSTALL PULL BOX TYPE A
- INSTALL PULL BOX TYPE C
- PROPOSED PEDESTRIAN SIGNAL WITH BUTTONS, AND R10-4b SIGNS
- PROPOSED PEDESTAL POLE W/SIGNALS WITH BUTTONS, AND R10-4b SIGNS
- EXISTING CONTROLLER FOUNDATION/CABINET
- SIGN PLATE (⊤ OR ⊤)
- SIGNAL POLE IDENTIFIER (T-3)
- SIGN PLATE AND POLE TO BE INSTALLED

NOTES:

1. SIGNAL HEAD No. 27 SHALL BE REPLACED WITH A NEW TYPE SIGNAL HEAD.
2. CONDUIT RUN 'K' SHALL BE BORED A MINIMUM OF 36 INCHES BENEATH R.R. TRACKS WITH 4 INCH RMC.
3. CONDUIT RUN 'T' SHALL RUN TO NEW R.R. INTERFACE CABINET (INSTALLED BY R.R. CONTRACTOR).
4. LOCATIONS OF OPTICOM DETECTORS AND VIDEO DETECTION CAMERAS MAY BE ADJUSTED IN THE FIELD TO MAXIMIZE EFFECTIVENESS.
5. OPTICOM DETECTORS AND VIDEO DETECTION CAMERAS ON MAST ARM POLES T-5, T-6, AND T-8 ARE EXISTING.

100% REVIEW

SIGNAL DESIGN

QUORUM - INWOOD CONNECTOR

SIGNAL LAYOUT PLANS

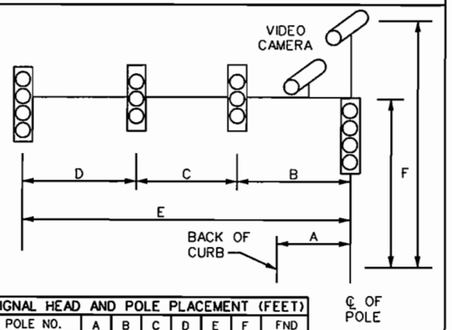
DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
A.P.M.	C.W.W.	3/01				21

File - SIGNAL-LAYOUT

SIGNAL HEAD AND POLE PLACEMENT



SIGNAL HEAD AND POLE PLACEMENT (FEET)							
POLE NO.	A	B	C	D	E	F	FND
T-1	3	23	12	---	40	28	36-A
T-2	2	8	11	11	30	19	30-A
T-3	5	13	11	11	35	19	30-A
T-4	5	18	11	11	40	28	36-A
T-5	5	23	11	11	45	19	EXIST.
T-6	7	30	12	12	55	28	EXIST.
T-7	5	18	11	11	40	28	EXIST.
T-8	5	18	11	11	40	28	EXIST.

SIGNAL POLE CONDUCTORS					
POLE NUMBER	OPTICOM	5-CNDR	7-CNDR	COAX	3-CNDR
T-1	55	115	---	35	35
T-2	50	75	55	30	30
T-3	---	165	---	30	30
T-4	60	110	65	35	35
T-5	---	---	---	---	---
T-6	---	---	80	---	---
T-7	---	95	65	---	---
T-8	---	---	---	---	---
TOTAL (LF)	165	560	265	130	130

CONDUIT SUMMARY

SIZE	TYPE	LENGTH (LF)
1" PVC	TRENCH	-
2" PVC	TRENCH	-
3" PVC	TRENCH	4D
4" PVC	BORE	250
4" PVC	TRENCH	-
4" RM	BORE	90

GROUND BOX SUMMARY

TYPE	EA
A	4
C	-

CABLE TERMINATION CHART

CABLE CONDUCTOR	T-1 (16 CNDR)		T-2 (16 CNDR)		T-3 (16 CNDR)		T-4 (16 CNDR)		T-5 (16 CNDR)		T-6 (16 CNDR)		T-7 (16 CNDR)		T-8 (10 CNDR)	
	S.H. NO.	INDICATION	S.H. NO.	INDICATION	S.H. NO.	INDICATION	S.H. NO.	INDICATION	S.H. NO.	INDICATION	S.H. NO.	INDICATION	S.H. NO.	INDICATION	S.H. NO.	INDICATION
BLACK	SPARE		4	← Y	SPARE		31	← Y	SPARE		SPARE		21	← Y	SPARE	
WHITE		COMMON		COMMON		COMMON		COMMON		COMMON		COMMON		COMMON		COMMON
RED	1-2	R	5-6	R	8-10	R	11-12	R	13-15	R	17-19	R	21-23	R	27-29	R
GREEN	1-2	G	5-6	G	8-10	G/← G	11-12	G	13-15	G	17-19	G/← G	21-23	G	27-29	G/← G
ORANGE	1-2	Y	5-6	Y	8-10	Y	11-12	Y	13-15	Y	17-19	Y	21-23	Y	27-29	Y
BLUE	SPARE		4	← G	SPARE		31	← G	SPARE		SPARE		21	← G	SPARE	
WHT/BLK	SPARE		SPARE			PB COM		PB COM		PB COM		PB COM		PB COM	SPARE	
RED/BLK	SPARE		SPARE		7	DW	3	DW	30	DW	20	DW	24	DW	SIGN SR3-1	
GRN/BLK	SPARE		SPARE		7	W	3	W	30	W	20	W	24	W	SPARE	
ORN/BLK	SPARE		4	Y	SPARE		SPARE		16	Y	SPARE		26	Y	SPARE	
BLUE/BLK	SPARE		SPARE		SPARE		SPARE		SPARE		PB 25	Ø4	PB 24	Ø8		
BLK/WHT	SPARE		SPARE		PB 7	Ø4	PB 3	Ø4	PB 30	Ø4	PB 20	Ø8	SPARE			
RED/WHT	SPARE		4	R	SPARE		SIGN SR3-1		16	R	25	DW	SPARE			
GRN/WHT	SPARE		4	G	SPARE		SPARE		16	G	25	W	SPARE			
BLUE/WHT	SPARE		SPARE		SPARE		SPARE		SPARE		SPARE		26	G		
BLK/RED	SPARE		SPARE		SPARE		SPARE		SPARE		SPARE		26	R		
WHT/RED																
ORN/RED																
BLUE/RED																

SIGNAL HEADS

NO	TYPE	PHASE	BACKPLATE		SIGNAL HEAD		PED SIG SEC
			3 SEC	4 SEC	3 SEC	4 SEC	
1-2	V3	Ø3	2		2		
4	V4LT*	Ø5•O.L. B		1		1	
5-6	V3	O.L. 2	2		2		
8	V4LT	O.L. C		1		1	
9-10	V3	O.L. C	2		2		
11-12	V3	O.L. 6	2		2		
13-15	V3	O.L. 4	EXIST.		EXIST.		
16	V3	O.L. 7	EXIST.		EXIST.		
17	V4LT	Ø8		1		1	
18-19	V3	Ø8	EXIST.		EXIST.		
21	V4LT*	O.L. A•0		1		1	
22-23	V3	O.L. A	2		2		
26	V3	O.L.4	EXIST.		EXIST.		
27	V4LT	Ø7		1		1	
28-29	V3	Ø7	EXIST.		EXIST.		
31	V4LT*	Ø1•O.L. 6		1		1	
3,7	PED	Ø4					2
20,24	PED	Ø8					EXIST.
25,30	PED	Ø4					EXIST.
TOTALS	---	---	10	6	10	6	2

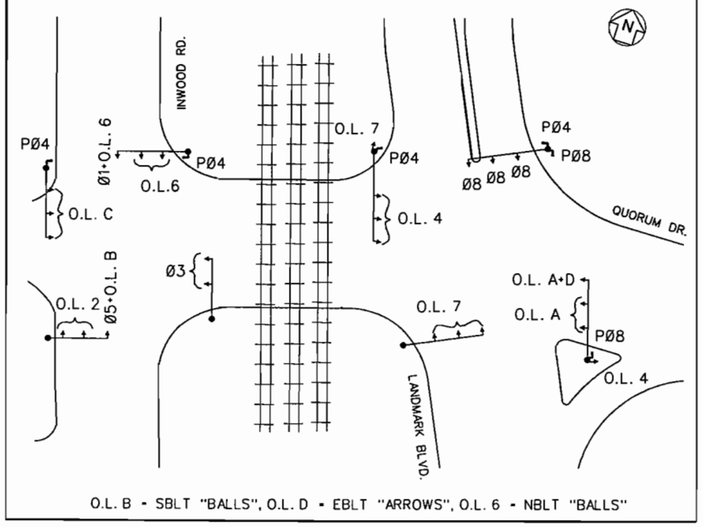
* -USE GREEN/YELLOW FIBER OPTIC TURN ARROW.

CONDUIT RUNS

RUN NO.	QUANTITY	SIZE	TYPE	METHOD	•4 XHHW	•6 BARE	COAX CABLE	4 CNDR OPTICOM	3 CNDR (VIDEO)	•12 XHHW	10 CNDR	16 CNDR	CONDUIT LENGTH	CABLE LENGTH	RUN NO.
A	2	4"	PVC	Exist.			5	3	5			4	10	15	A
B	2	4"	PVC	Exist.			5	3	5			4	15	20	B
C	1	4"	PVC	Exist.									100	110	C
D	1	3"	PVC	Exist.									10	15	D
E	1	4"	PVC	Exist.									115	125	E
F	1	3"	PVC	Exist.									20	25	F
G	1	4"	PVC	Exist.									105	115	G
H	1	3"	PVC	Exist.			1		1				20	25	H
I	1	4"	PVC	Exist.			1		1				100	110	I
J	1	3"	PVC	Exist.									15	20	J
K	1	4"	RMC	Bored		1	4	3	4			4	90	100	K
L	1	3"	PVC	Trench		1	1	1	1			1	5	10	L
M	1	4"	PVC	Bored		1	1	1	1			1	85	95	M
N	1	3"	PVC	Trench		1	1	1	1			1	10	15	N
O	1	3"	PVC	Trench		1	1		1			1	10	15	O
P	1	4"	PVC	Bored		1	1		1			1	85	95	P
Q	1	3"	PVC	Trench		1	1	1	1			1	15	20	Q
R	1	4"	PVC	Bored		1	2	1	2			2	80	90	R
S	1	2"	PVC	Exist.									50	60	S
•T															T
TOTAL(LF)	---	---	---	---	---	440	1140	635	1140	---	---	970	---	---	

• TO SITE OF NEW R.R. INTERFACE EQUIPMENT.

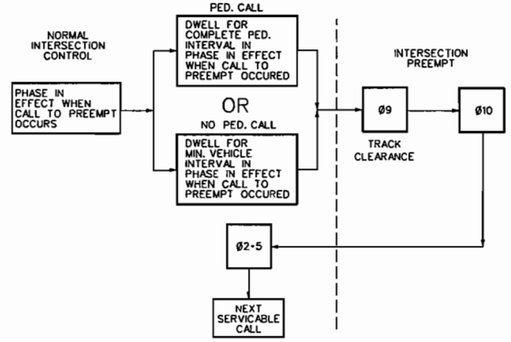
SIGNAL HEAD PHASING



O.L. B - SBLT "BALLS", O.L. D - EBLT "ARROWS", O.L. 6 - NBLT "BALLS"

ECONOLITE ASC-2 PROGRAMMING

O.L. 2 - Ø2•10
O.L. 4 - Ø3•4
O.L. 6 - Ø6•10
O.L. 7 - Ø7•10
O.L. A - Ø3•4•5•6•9
O.L. B - Ø2 BUT NOT Ø10
O.L. C - Ø4•7•8•9
O.L. D - Ø5•6•9



RAILROAD PREEMPT SEQUENCE DIAGRAM

Ø9 - O.L. A•C•D (TRACK CLEARANCE)
Ø10 - Ø2, Ø6, Ø7 (PREEMPTION PHASES)

100% REVIEW

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SIGNAL DESIGN

QUORUM - INWOOD CONNECTOR

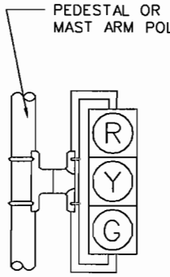
SIGNAL LAYOUT TABLES

DEPARTMENT OF PUBLIC WORKS

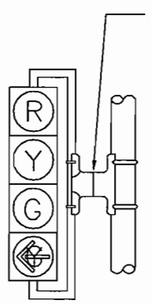
TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
A.P.M.	C.W.W.	3/01				22

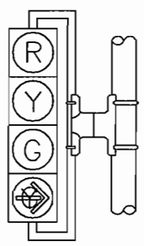
File: SIGNAL-TABLES



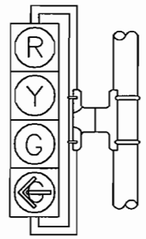
V3



V4LT(F)

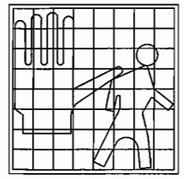


V4RT(F)

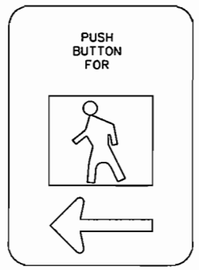


V4LT

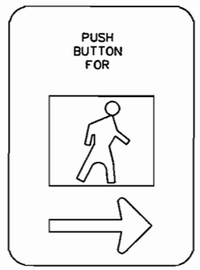
FIBEROPTIC ARROWS



PEDESTRIAN
SIGNAL HEAD



SIGN R10-4bL
9" x 12"

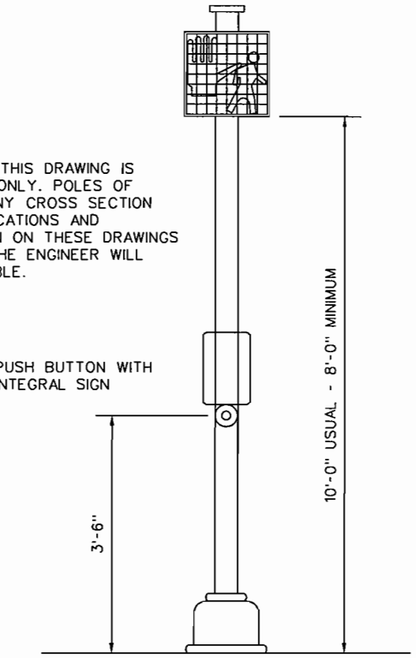


SIGN R10-4bR
9" x 12"

PEDESTRIAN PUSH BUTTON
SIGN DETAILS

NOTE :

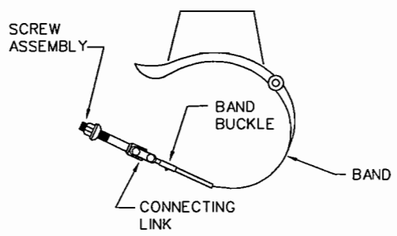
THE POLE SHOWN IN THIS DRAWING IS SHOWN AS EXAMPLE ONLY. POLES OF SIMILAR DESIGN OF ANY CROSS SECTION AND MEETING SPECIFICATIONS AND REQUIREMENTS SHOWN ON THESE DRAWINGS AND APPROVED BY THE ENGINEER WILL BE DEEMED ACCEPTABLE.



POST DETAIL

NOTES :

1. ALL SIGNAL HEAD LENSES SHALL BE 12" IN DIAMETER.
2. VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH "ASTRO BRACS" AND APPROPRIATE TUBING, PAINTED BLACK. ALL SIGNALS TO BE BLACK, ALL LENSES TO BE POLYCARBONATE.
3. ALL VISORS SHALL BE TUNNEL VISORS.
4. ALL POLE MOUNTED VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL BE INSTALLED ON THE AWAY-FROM-TRAFFIC SIDE OF THE PEDESTAL OR MAST ARM POLE.
5. ALL SIGNAL HEADS WILL BE PROVIDED WITH BLACK 5" POLYCARBONATE VACUUM FORMED BACKPLATES.
6. ALL WIRING FOR VEHICLE AND PEDESTRIAN SIGNALS SHALL BE TOTALLY ENCLOSED WITHIN THE SIGNAL MOUNTING HARDWARE.
7. ALL MAST ARM AND POLE MOUNTED SIGNS SHALL BE MOUNTED WITH ASTRO SIGN-BRAC OR SIGNFIX ALUMINUM CHANNEL.
8. ALL PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON SIGNS SHALL DISPLAY THE SYMBOLIZED MESSAGES SHOWN ON THIS SHEET (A.D.A. APPROVED).
9. SYMBOLIZED MESSAGE HEIGHT SHALL BE 10 INCHES MINIMUM.
10. PROVIDE DURO TEST OR EQUIVALENT 135 WATT LAMPS IN VEHICLE SIGNALS.
11. PROVIDE DURO TEST OR EQUIVALENT 60 WATT LAMPS IN PEDESTRIAN SIGNALS.

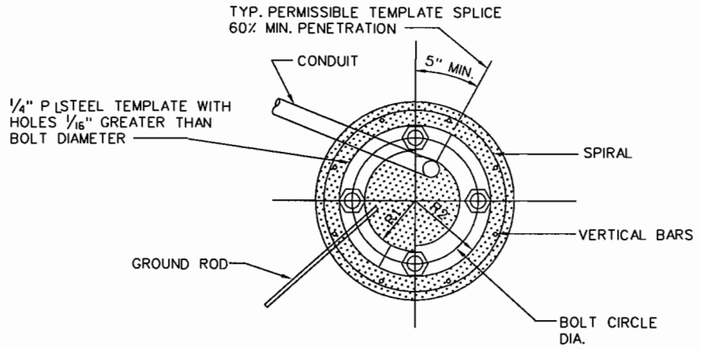


ASTRO BRAC

100% REVIEW

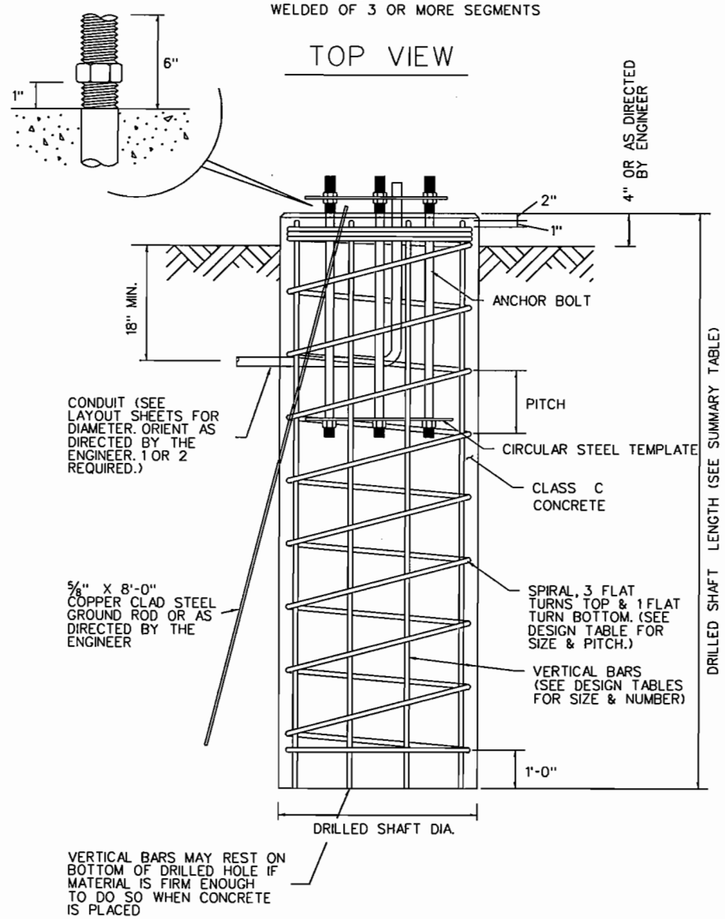
SIGNAL DESIGN						
INWOOD CONNECTION						
TRAFFIC SIGNAL HEAD DETAILS						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	3/01				23

File : SIGDET66



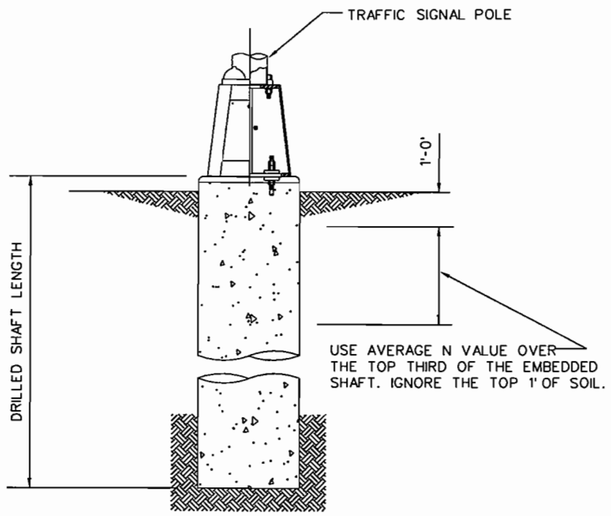
R1 MAY EQUAL R2 IF PLATE IS WELDED OF 3 OR MORE SEGMENTS

TOP VIEW



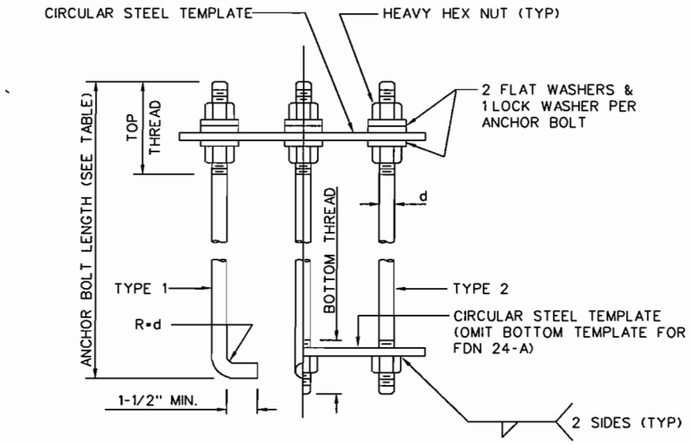
ELEVATION

FOUNDATION DETAILS



ANCHOR BOLT & TEMPLATE SIZES						
BOLT DIAMETER	*BOLT LENGTH	TOP THREAD	BOTTOM THREAD	BOLT CIRCLE	R2	R1
3/4"	1'-6"	3"	-	12-3/4"	7-1/8"	5-5/8"
1-1/2"	3'-4"	6"	2"	17"	10"	7"
1-3/4"	3'-10"	7"	2-1/4'	19"	11-1/4"	7-3/4"
2"	4'-3"	8"	2-1/2"	21"	12-1/2"	8-1/2"

* MINIMUM DIMENSIONS GIVEN, LONGER BOLTS ARE ACCEPTABLE



HOOKED ANCHOR (TYPE 1) NUT ANCHOR (TYPE 2)

ANCHOR BOLT ASSEMBLY

INSTALLATION PROCEDURE :

THREADS OF ANCHOR BOLTS SHALL BE COATED WITH PIPE JOINT COMPOUND PRIOR TO INSTALLATION OF UPPER NUTS WHEN ERECTING POLE. AFTER POLE IS PLUMBED AND IN PERMANENT ALIGNMENT, THE EXPOSED THREADS OF PAINTED BOLTS SHALL BE CLEANED AND AN ADDITIONAL COATING OF ZINC-RICH PAINT APPLIED TO SEAL THE BOLT THREAD-NUT JOINT.

FOUNDATION DESIGN TABLE												
FDN TYPE	DRILLED SHAFT DIA	REINFORCING STEEL		DRILLED SHAFT LENGTH-ft (3), (4), (5)			ANCHOR BOLT DESIGN (1)				FOUNDATION DESIGN LOAD (2)	
		VERT BARS	SPIRAL & PITCH	TEXAS CONE PENTROMETER N blows/ft			ANCHOR BOLT DIA	Fy (ksi)	BOLT CIR DIA	ANCHOR TYPE	MOMENT K-ft	SHEAR Kips
				10	15	40						
24-A	24"	4-#5	#2 at 12"	5.7	5.3	4.5	3/4"	36	12 3/4"	1	10	1
30-A	30"	8-#9	#3 at 6"	11.3	10.3	8.0	1 1/2"	55	17"	2	87	3
36-A	36"	10-#9	#3 at 6"	13.2	12.0	9.4	1 3/4"	55	19"	2	131	5
36-B	36"	12-#9	#3 at 6"	15.2	13.6	10.4	2 "	55	21"	2	190	7

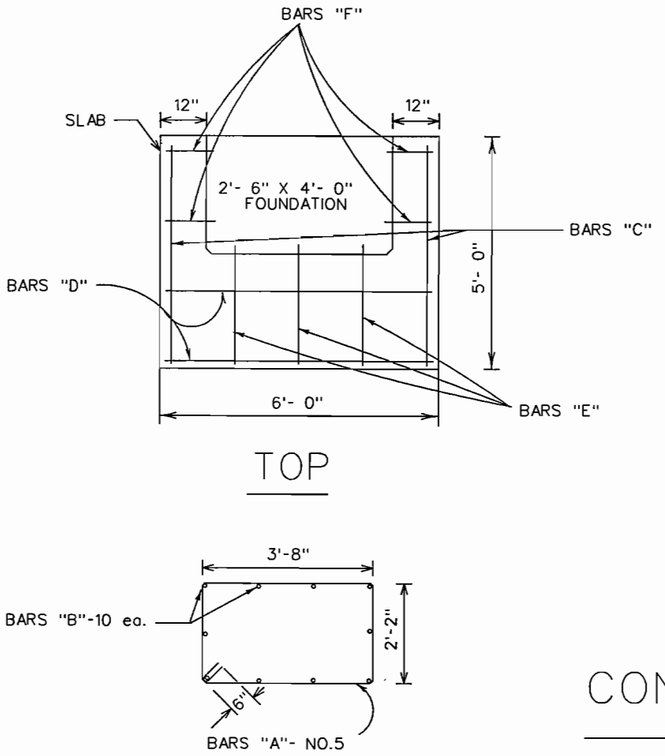
NOTES :

(1) ANCHOR BOLT DESIGN DEVELOPS THE FOUNDATION CAPACITY GIVEN UNDER FOUNDATION DESIGN LOADS.
(2) FOUNDATION DESIGN LOADS ARE THE ALLOWABLE MOMENTS AND SHEARS AT THE BASE OF THE STRUCTURE.
(3) FIELD PENETROMETER READINGS AT A DEPTH OF APPROXIMATELY 3 TO 5 FEET MAY BE USED TO ADJUST SHAFT LENGTHS.
(4) IF ROCK IS ENCOUNTERED, THE DRILL SHAFT SHALL EXTEND A MINIMUM OF TWO DIAMETERS INTO SOLID ROCK.
(5) DECIMAL LENGTHS IN DESIGN TABLE ARE TO ALLOW INTERPOLATION FOR OTHER PENETROMETER VALUES.

100% REVIEW

SIGNAL DESIGN						
INWOOD CONNECTION						
TRAFFIC SIGNAL POLE FOUNDATIONS						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	3/01				24

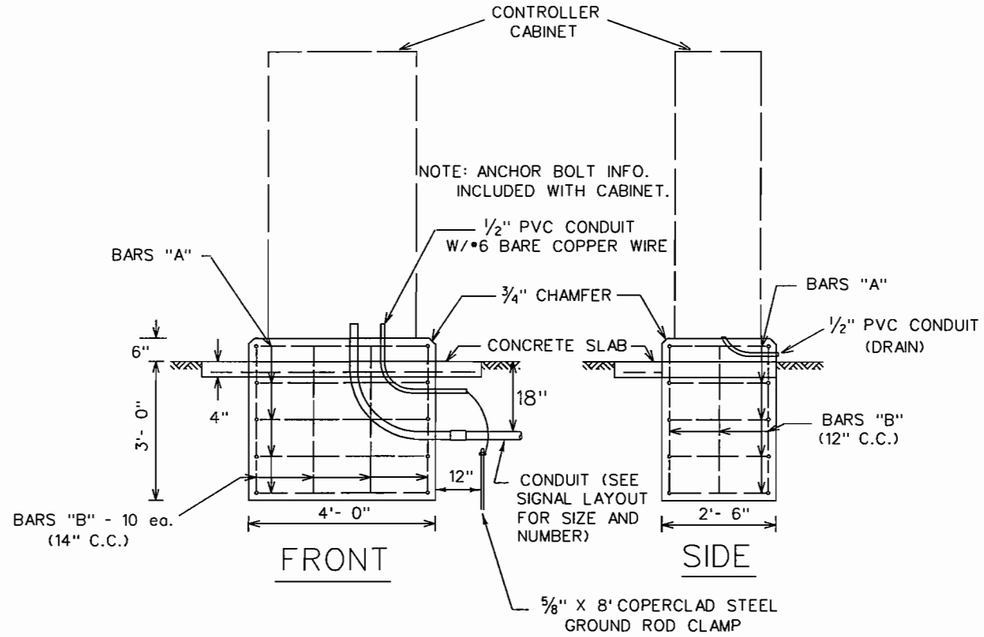
File : SIGDET44



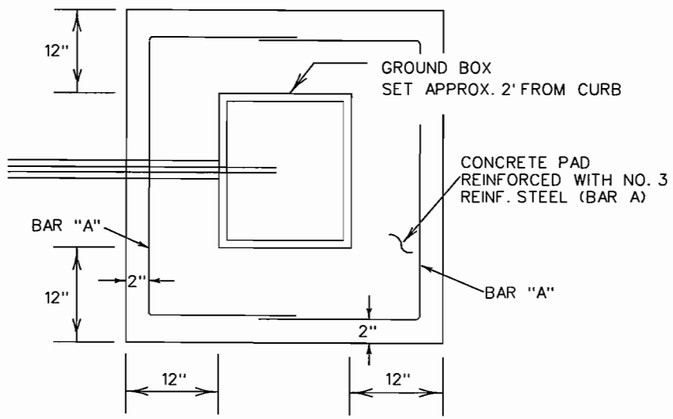
TOP

BAR	NO. BARS	SIZE	LENGTH	SPACING
A	6	5	12'-8"	9.5" C.C.
B	10	5	3'-2"	VAR.
C	2	3	4'-8"	16.5" C.C.
D	2	3	5'-8"	18" C.C.
E	3	3	2'-8"	16.5" C.C.
F	4	3	1'-2"	18" C.C.

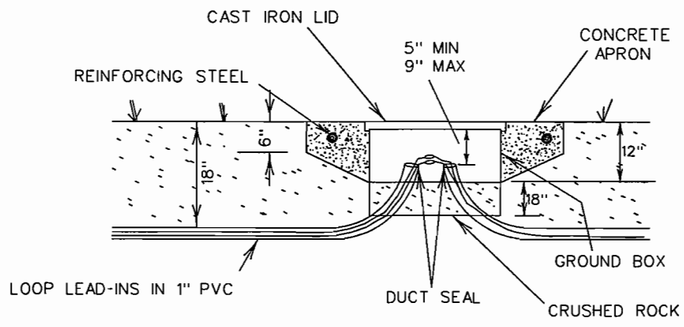
PROVIDE 2" MIN. COVER FOR TOP AND SIDES



CONTROLLER FOUNDATION DETAILS



PLAN



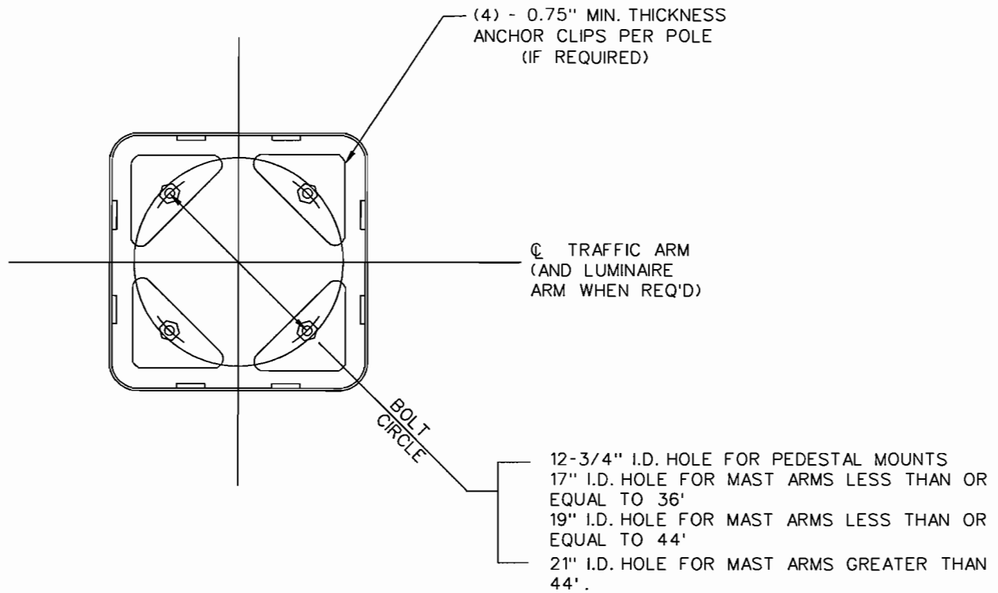
ELEVATION

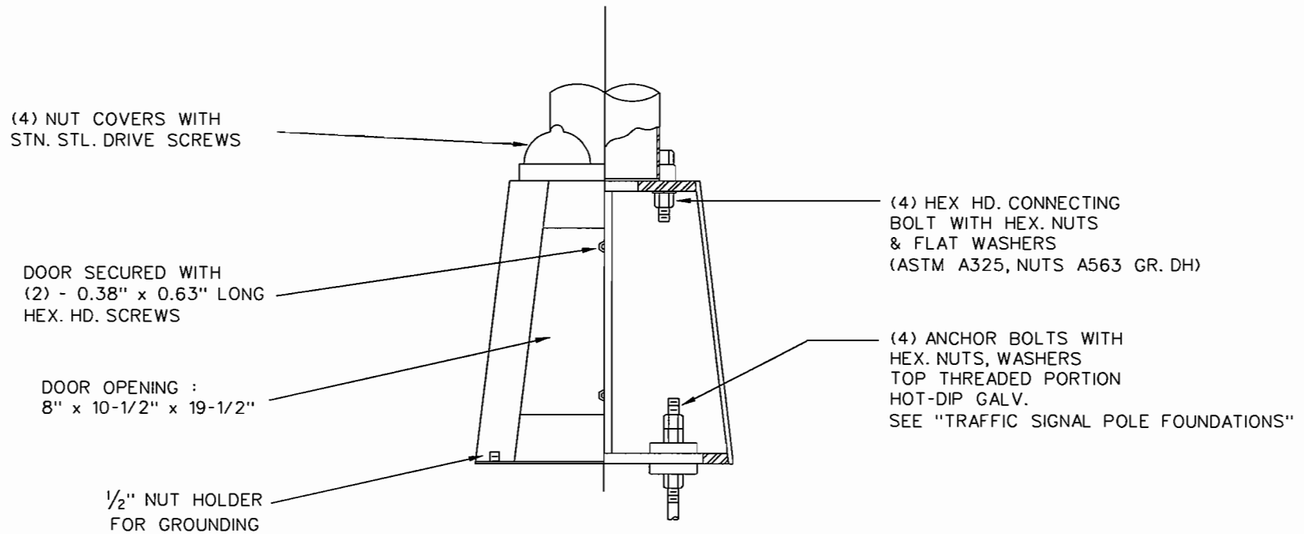
GROUND BOX INSTALLATION DETAILS

100% REVIEW

SIGNAL DESIGN						
INWOOD CONNECTION						
CONTROLLER FOUNDATION/GROUND BOX INSTALLATION						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	3/01				25

File : SIGDET55





TRANSFORMER BASE MOUNTING DETAILS

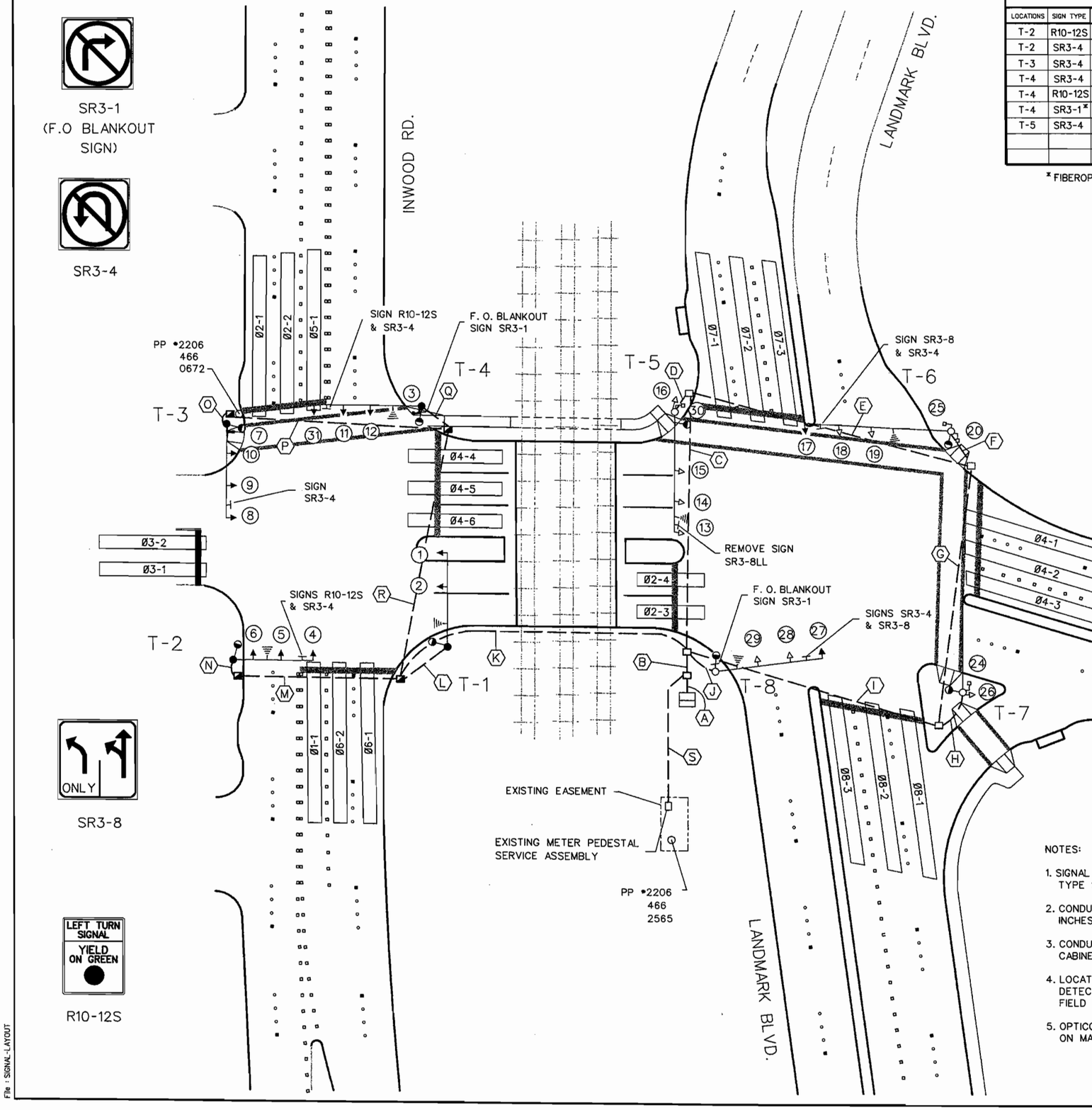
100% REVIEW

SIGNAL DESIGN						
INWOOD CONNECTION						
TRANSFORMER BASE DETAILS						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
P.G.W.	C.W.W.	3/01				26

File : SIGDET22

SR3-1
(F.O BLANKOUT
SIGN)

SR3-4



SR3-8

R10-12S

SIGN SUMMARY							
LOCATIONS	SIGN TYPE	DESCRIPTION	SIZE	LOCATIONS	SIGN TYPE	DESCRIPTION	SIZE
T-2	R10-12S	LEFT TURN YIELD	30" x 36"	T-6	R10-12S	LEFT TURN YIELD	30" x 36"
T-2	SR3-4	NO U-TURN	30" x 30"	T-6	SR3-8	LANE ASSIGNMENT	36" x 36"
T-3	SR3-4	NO U-TURN	30" x 30"	T-6	SR3-4	NO U-TURN	EXISTING
T-4	SR3-4	NO U-TURN	30" x 30"	T-7	SR3-4	NO U-TURN	30" x 30"
T-4	R10-12S	LEFT TURN YIELD	30" x 36"	T-8	SR3-1*	NO RIGHT TURN	30" x 30"
T-4	SR3-1*	NO RIGHT TURN	30" x 30"	T-8	SR3-4	NO U-TURN	EXISTING
T-5	SR3-4	NO U-TURN	EXISTING	T-8	SR3-8	LANE ASSIGNMENT	EXISTING

*FIBEROPTIC BLANKOUT SIGN

HORIZONTAL SCALE : 1" = 40'

0 10 20 30 40 50 60

LEGEND

EXISTING		PROPOSED	
FIRE HYDRANT		TRAFFIC SIGNAL ON ARM W/POLE	
TRAFFIC SIGNAL ON ARM W/POLE		VIDEO DETECTION CAMERA	
PEDESTRIAN SIGNAL WITH BUTTONS, AND R10-4b SIGNS		SIGNAL HEAD IDENTIFIER	1
PULL BOX		SIGNAL CONDUIT	
POWER POLE		CONDUIT IDENTIFIER	Q
LIGHT STANDARD WITH PHOTOCELL		INSTALL PULL BOX TYPE A	
RIGHT-OF-WAY		INSTALL PULL BOX TYPE C	
ZONE DETECTOR (VIDEO)		PEDESTRIAN SIGNAL WITH BUTTONS, AND R10-4b SIGNS	
OPTICOM DETECTOR		PEDESTAL POLE W/SIGNALS WITH BUTTONS, AND R10-4b SIGNS	
		INSTALL CONTROLLER FOUNDATION/CABINET	
		SIGN PLATE	⊤ OR ⊤
		PROPOSED SIGNAL POLE IDENTIFIER	T-3
		SIGN PLATE AND POLE TO BE INSTALLED	

NOTES:

1. SIGNAL HEAD No. 27 SHALL BE REPLACED WITH A NEW TYPE SIGNAL HEAD.
2. CONDUIT RUN 'K' SHALL BE BORED A MINIMUM OF 36 INCHES BENEATH R.R. TRACKS WITH 4 INCH RMC.
3. CONDUIT RUN 'T' SHALL RUN TO NEW R.R. INTERFACE CABINET (INSTALLED BY R.R. CONTRACTOR).
4. LOCATIONS OF OPTICOM DETECTORS AND VIDEO DETECTION CAMERAS MAY BE ADJUSTED IN THE FIELD TO MAXIMIZE EFFECTIVENESS.
5. OPTICOM DETECTORS AND VIDEO DETECTION CAMERAS ON MAST ARM POLES T-5, T-6, AND T-8 ARE EXISTING.

Entire Intersection
Reference Only

SIGNAL DESIGN

QUORUM - INWOOD CONNECTOR

SIGNAL LAYOUT PLANS

DEPARTMENT OF PUBLIC WORKS

TOWN OF ADDISON, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER
A.P.M.	C.W.W.	9/00				

File : SIGNAL-LAYOUT

TOWN OF ADDISON®

PUBLIC WORKS DEPARTMENT
Post Office Box 9010 Addison, Texas 75001-9010

(972) 450-2871 FAX (972) 450-2837
16801 Westgrove

September 24, 2002

Al Kramer
AT&T Broadband
1776 Greenville Ave.
Richardson, Texas 75081

Re: Inwood/S. Quorum, Phase II

Dear Mr. Kramer:

The Town of Addison has completed engineering design of the Inwood/ S. Quorum, Phase II project. These improvements will provide a new rail crossing and associated drainage improvements along Inwood Rd. The attached half-scale drawings are provided for your review of potential utility conflicts in this vicinity.

It is the intention of the Town to initiate the bidding process in December 2002. Please notify the Town of any conflicts regarding your utility and proceed to perform necessary relocation in a timely manner. Your assistance in this matter is greatly appreciated. Should you have any questions, please contact me at 972-450-2860. Thank you.

Sincerely,

Luke Jalbert
Project Manager

9/2002

get LIST OF FRANCHISE UTILITIES - & SEND TO UTILITIES

RECIPE PLANS - DATE & STAMP

~~ERECTION DOCUMENTS~~ to WESTERN

CONTACT PAL-TECH - LEGAL DES. & MAPS ON 2 PARCELS - CHANGE to DRAINAGE EASEMENT

HAVE APPRAISAL DONE

~~ADD TEMPORARY CONSTRUCTION EASEMENT~~

Steve Chutchian

To: Washington, Angela
Cc: Luke Jalbert
Subject: RE: South Quorum/Inwood Connection Easements

Angela - I asked Luke Jalbert to check our tax records for the current ownership of the two tracts, based on our billing records. One of the tracts has two drainage easements and the other tract has one drainage easement. He will contact you as soon as he gets the information. Based on our conversaton yesterday, we can forward your completed documents to Pat Haggerty and he can attempt to obtain signatures from the owners. If the owners want money, we will be forced to take a step back and obtain appraisals. Thanks.

Steve Chutchian

-----Original Message-----
From: Washington, Angela [mailto:awashington@cowlesthompson.com]
Sent: Tuesday, November 26, 2002 5:13 PM
To: Steve Chutchian (E-mail)
Cc: DIPPEL, KEN
Subject: South Quorum/Inwood Connection Easements

Steve -

I received the documents for the above referenced easements. They include field note descriptions and survey depictions for drainage easements for Parcels 5, 6, & 7, and field notes and a survey depiction for a Roadway Easement for Parcel 7. Pursuant to Luke Jalbert's instructions, I am not preparing documents for the drainage easement or the roadway easement for Parcel 7. It is my understanding that the Town has already acquired these. I have prepared draft documents for the drainage easements for Parcels 5 & 6; however, I need information regarding ownership and purchase price, if any, to complete the documents. If we do not have ownership information, let me know and I can get assistance from a title company. Also, If we have to purchase the easements, our office recommends title insurance. Look forward to talking to you after the holiday.

Angela

Steve Chutchian

From: Jim Pierce
Sent: Monday, November 18, 2002 4:25 PM
To: 'Weidong Li'
Cc: Michael Murphy; Steve Chutchian
Subject: RE: Inwood Connection




CrossingAgreement (WO Price).rt... 11-14Exhibit B.rtf 11-14Exhibit B-1.rtf 11-14LandmarkROE .rtf

Weidong: We prefer a leave-out. Our road will be built to the existing railroad track elevations now. However, if we have a leave-out, and the RR comes back later and rebuilds the crossing, there could be some differences in elevation. A leave-out allows us to make adjustments.

I have also attached a copy of the agreement we will sign with the railroad. There are several provisions in the agreement that must be included in the construction documents so the contractor is aware of them. Please review and include what is appropriate. Thanks, Jim.

-----Original Message-----
From: Weidong Li [mailto:Weidong.Li@parsons.com]
Sent: Tuesday, November 12, 2002 2:22 PM
To: Jim Pierce (E-mail)
Cc: 'schutchian@ci.addison.tx.us'
Subject: Re: Inwood Connection

Hi, Jim:

I got your mail today requesting a typical section for the railroad crossing. I have added a typical section at railroad crossing on the TYPICAL SECTION SHEET 1 OF 2. I hope this is what you need. I got a question about the leave-out: Which is going to be constructed first, the railroad crossing or our project? If the railroad goes first, we can match the existing track elevations. We don't need the "leaveout". If the railroad comes after us, they should be able to match our grades, since our pvmt is designed to match the existing track grades. Please let me know.

Weidong

TOWN OF ADDISON®

PUBLIC WORKS DEPARTMENT (972) 450-2871 FAX (972) 450-2837

Post Office Box 9010 Addison, Texas 75001-9010 16801 Westgrove

September 24, 2002

Tim Manley
Worldcom/MCI
Dept 2855/642
2250 Lakeside Drive
Richardson, TX 75082

Re: Inwood/S. Quorum, Phase II

Dear Mr. Manley:

The Town of Addison has completed engineering design of the Inwood/ S. Quorum, Phase II project. These improvements will provide a new rail crossing and associated drainage improvements along Inwood Rd. The attached half-scale drawings are provided for your review of potential utility conflicts in this vicinity.

It is the intention of the Town to initiate the bidding process in December 2002. Please notify the Town of any conflicts regarding your utility and proceed to perform necessary relocation in a timely manner. Your assistance in this matter is greatly appreciated. Should you have any questions, please contact me at 972-450-2860. Thank you.

Sincerely,

Luke Jalbert
Project Manager

PARSONS

LETTER OF TRANSMITTAL

15770 North Dallas Parkway, Suite 500, Box 21
Dallas, Texas 75248
Telephone #: (972) 991-1900 Fax #: (972) 490-9261
Metro #: (972) 263-9138

DATE: 10/07/02	JOB NO. 643314
ATTENTION:	Mr. Steven Chutchian, P.E.
RE:	Inwood/South Quorum Access-Phase II
	Supplemental Agreement #4

TO: **Town of Addison**
16801 Westgrove Road
Addison, Texas 75001
phone: (972)450-2886, fax: (972)450-2837

WE ARE SENDING YOU :
[X] Enclosed [ ] Under separate cover: [ ] Mail [ ] FedEX
[ ] Shop drawings [ ] Prints [ ] Plans [ ] Samples [ ] Specifications [ ] Other
[ ] Copy of letter [ ] Change order [ ] EA Reports and Schematics [x] SA Documents [ ] Other

ITEM	COPIES	NO. SHEETS	DESCRIPTION
1	2	3	**Supplemental Agreement #4**
1	1	1	**Engineering Fee Estimate**

THESE ARE TRANSMITTED AS CHECKED BELOW:

[ ] For approval [ ] Approved as submitted [x] Resubmit ___ copies for approval
[ ] For your use [ ] Approved as noted [ ] Submit ___ copies for distribution
[ ] As requested [ ] Returned for corrections [ ] Return ___ corrected prints
[ ] Review/Comment [ ] For Submittal To Client [ ] For Submittal To TxDOT
[ ] FOR BIDS DUE_____ 20____ [ ] PRINTS RETURNED AFTER LOAN TO US

REMARKS : **Steven:**

I'm resubmitting two copies of the SA documents to you. A copy of the fee breakdown is also included for your refere
I have incorporated comments from you and Jim and revised the fee slightly per my conversation with Jim. If this is
accepted, please sign two copies and return one copy to me. Should you have any questions, please feel free to call

Thanks.

COPY: **FILE**

SIGNED: Weidong Li

Weidong Li, P.E.
Project Manager

ENGINNERING FEE ESTIMATE
INWOOD/SOUTH QUORUM ACCESS FOR THE TOWN OF ADDISON

TASK NO.	DESCRIPTION	MANHOURS	COST
1	Subcontract for suvey	LS	$2,200.00
2	Revise Landmark Pl. Plan & Profile and include drainage if necessary.	40	$3,455.00
3	Update 100% plans and address minor comments from the Town	24	$2,075.00
4	Update Quantities & Construction Estimate	12	$990.00
5	Prepare bid documents	32	$2,765.00
6	Review signal shop drawings	8	$785.00
7	Prepare as-builts	12	$945.00
8	Project administration and management	20	$1,765.00
9	Meetings (4)	12	$1,180.00
10	Direct Expenses	LS	$950.00
TOTAL:		**160**	**$17,110.00**

TOWN OF ADDISON
PAYMENT AUTHORIZATION MEMO

DATE: 3/10/04 **Claim #** _____ **Check $** 49,654.39

Vendor No. _____

Vendor Name JIM BOWMAN CONSTRUCTION CO., L.P.

Address 1111 SUMMIT AVE., SUITE 1

Address PLANO, TEXAS 75074

Address _____

Zip Code _____

INVOICE # OR DESCRIPTION	FUND	DEPT	OBJ	PROJ	SAC	AMOUNT
	(00)	(000)	(00000)	(00000)	(000)	($000,000.00)
	41	000	5810	42303		49,654.39

TOTAL $ 49,654.39

EXPLANATION FINAL PAYMENT FOR INWOOD / SO. QUORUM PROJECT, AS PER COUNCIL APPROVAL ON 3/9/04

Steve Chutchian
Authorized Signature

Finance

MONTHLY INVOICE

JIM BOWMAN CONSTRUCTION COMPANY, L.P.

1111 Summit Ave., Suite 1 Plano, Texas 75074 (972) 423-1313

Project Name: #614 - Inwood / South Quorum Access, Ph II
Type of Work: Paving and Drainage
Estimate Period: January 3, 2004 to January 31, 2004

Payable To: Jim Bowman Construction Co., L.P.
1111 Summit Ave., Suite 1
Plano, Texas 75074

Estimate No. 6 & Final
Contract Date June 24, 2003
Contract Amt. $438,778.10
w/ CO#1 $451,907.10

Item	Description	Unit of Measure	Contract Quantity	Work Done This Month	Total Work Done on Contract	Contract Price	Amount
	BID SCHEDULE "A" - ROADWAY IMPOVEMENTS						
101	Barricading/Signage/Traffic Control	MO	6.00		5.00	1,250.00	$6,250.00
102	Prepare R.O.W.	STA	8.00		8.00	2,125.00	$17,000.00
103	Remove Existing Concrete Pvmt / Drive	SY	1,954.60		1,900.32	10.00	$19,003.20
104	Railroad Flagman	LS	1.00		1.00	6,250.00	$6,250.00
105	Unclassified Street Excavation	CY	321.00		321.00	15.00	$4,815.00
106	Roadway Embankment	CY	227.00		227.00	20.00	$4,540.00
107	Block Sod / Watering / Fertilizer	SY	1,338.00		1,655.00	3.00	$4,965.00
108	10" - 4000psi R.C. Pavement	SY	2,644.00		2,818.09	48.50	$136,677.37
109	Design / Restore Irrigation System	LS	1.00		1.00	8,000.00	$8,000.00
110	Mobilization	LS	1.00		1.00	20,200.00	$20,200.00
111	6" - 4000psi Integral Concrete Curb	LF	1,517.20		1,539.30	3.00	$4,617.90
112	4" - 4000psi RC Sidewalk	SY	25.60		22.21	36.00	$799.56
113	R.C. Wheelchair Ramps	EA	2.00		2.00	400.00	$800.00
114	6" - 4000psi R.C. Driveway	SY	109.30		90.57	40.00	$3,622.80
115	Landscape Pavers w/ Concrete Base	SF	473.00		473.00	5.00	$2,365.00
116	4" Reflective Type II CR	EA	34.00		52.00	2.60	$135.20
117	4" Non-Reflective White Buttons	EA	102.00		144.00	2.20	$316.80
118	4" Reflective Type II AA	EA	42.00		62.00	2.60	$161.20
119	4" Non-Reflective Yellow Buttons	EA	152.00		231.00	2.20	$508.20
120	6" Reflective Type I C Jiggle Bars	EA	43.00		52.00	11.00	$572.00
121	24" White Thermo Stop Bar	LF	166.00		147.00	4.50	$661.50
122	12" White Thermo X Walk	LF	167.00		153.00	2.00	$306.00
123	Thermo Pav. Arrows	EA	10.00		13.00	75.00	$975.00
124	4" Temporary Lane Marker	LF	6,320.00		3,458.00	0.80	$2,766.40
125	6" PVC Irrigation Sleeve	LF	88.00		360.00	7.00	$2,520.00
126	Remove Existing Jiggle Bars	EA	71.00		75.00	3.00	$225.00
127	Concrete Railroad Header	CY	7.00		4.58	400.00	$1,832.00
128	2" HMAC	TON	26.30		37.07	80.00	$2,965.60
129	Adjust Utility Manhole, Valve Box, etc.	EA	6.00		2.00	420.00	$840.00
C.O. #1	10" Pavement Between Tracks	LS	1.00		1.00	6,746.00	$6,746.00
	BID SCHEDULE "B" - STORM WATER IMPROVEMENTS						
201	18-inch Cl. III R.C.P.	LF	707.00		699.00	57.00	$39,843.00
202	24-inch Cl. III R.C.P.	LF	486.00		494.00	67.00	$33,098.00
203	Type "M" Manhole	EA	2.00		2.00	3,500.00	$7,000.00
204	Remove/Replace Existing Pavement	SY	24.90			75.00	
205	5-ft Type "C" Curb Inlet	EA	5.00		5.00	2,250.00	$11,250.00
206	Trench Safety Design	LS	1.00		1.00	600.00	$600.00
207	Trench Safety	LF	1,213.00		1,407.00	1.00	$1,407.00
208	Install, Maintain, Remove Inlet Protection	EA	5.00		5.00	270.00	$1,350.00
209	Install, Maintain, Remve Rock Filter Dams	LF	50.00		50.00	27.00	$1,350.00
210	Install, Maintain, Remove Silt Fence	LF	200.00		281.00	3.70	$1,039.70
211	12-inch Cl. IV R.C.P.	LF	188.00		224.00	61.00	$13,664.00
212	Pre-Cast Safety End Treatment, Type II, 2-12"	EA	2.00		1.00	1,800.00	$1,800.00
213	Connect 24" R.C.P. to Existing Curb Inlet	LS	1.00		1.00	600.00	$600.00
C.O. #1	Outlet Structure at 12" Pipe	LS	1.00		1.00	2,200.00	$2,200.00
C.O. #2	Lower 8" Waterline	LS	1.00		1.00	4,183.00	$4,183.00
C.O. #3	Re-Construct RR Damage / Ext. Sidewalk	Cost Plus	1.00	1.00	1.00	1,813.32	$1,813.32

MONTHLY INVOICE

JIM BOWMAN CONSTRUCTION COMPANY, L.P.

1111 Summit Ave., Suite 1 Plano, Texas 75074 (972) 423-1313

Item	Description	Unit of Measure	Contract Quantity	Work Done This Month	Total Work Done on Contract	Contract Price	Amount
	BID SCHEDULE "C" - SIGNALIZATION						
301	3" Schedule 40 PVC Trenched	LF	40.00		40.00	5.00	$200.00
302	4" Schedule 40 PVC Bored	LF	250.00		250.00	15.00	$3,750.00
303	4" Rigid Metal Conduit Bored	LF	90.00		90.00	21.00	$1,890.00
304	#6 AWG Bare Electrical Wire	LF	440.00		440.00	0.50	$220.00
305	Type A Ground Box with Apron	EA	4.00		4.00	550.00	$2,200.00
306	Traffic Sign (SR3-1), Mast Arm Pole Mount, LED	EA	2.00		2.00	2,450.00	$4,900.00
- 307	Traffic Sign (SR3-4), Mast Arm Mount	EA	4.00		7.00	100.00	$700.00
308	Traffic Sign (SR3-8), Mast Arm Mount	EA	2.00		2.00	100.00	$200.00
309	Traffic Sign (R3-5) Mast Arm Mount	EA	1.00		1.00	150.00	$150.00
310	Traffic Sign (R10-12S) Mast Arm Mount	EA	1.00		1.00	75.00	$75.00
311	Signal Pole Concrete Foundation (Type 30-A)	EA	2.00		2.00	1,500.00	$3,000.00
312	Signal Pole Concrete Foundation (Type 36-A)	EA	2.00		2.00	1,700.00	$3,400.00
313	12"-3 Section LED Signal Head (Type V3)	EA	10.00		10.00	830.00	$8,300.00
314	12"-4 Section LED Signal Head with GreenTurn (V4LT)	EA	3.00		3.00	1,000.00	$3,000.00
315	12"-4 Section LED Signal w/ Green/Yellow Turn Arrow	EA	3.00		3.00	1,000.00	$3,000.00
316	Vacuum Formed Backplate, 3 Section	EA	10.00		10.00	45.00	$450.00
317	Vacuum Formed Backplate, 4 Section	EA	6.00		6.00	55.00	$330.00
318	3 Section Astro Brac w/ 29" Bands	EA	10.00		10.00	100.00	$1,000.00
319	4 Section Astro Brac w/ 29" Bands	EA	6.00		6.00	105.00	$630.00
320	Pedestrian LED Signal Head w/ Countdown Timer	EA	2.00		2.00	800.00	$1,600.00
321	4 CNDR Opticom Cable, Model M138	LF	800.00		800.00	1.00	$800.00
322	5 CNDR Signal Cable (#16 AWG)(IMSA 20-1)	LF	560.00		560.00	0.50	$280.00
323	7 CNDR Signal Cable (#16 AWG)(IMSA 20-1)	LF	265.00		265.00	0.60	$159.00
324	16 CNDR Signal Cable (#12 AWG)(IMSA 20-1)	LF	970.00		970.00	2.00	$1,940.00
325	Pedestrian Push Button & R10-4B Sign Assembly	EA	2.00		2.00	150.00	$300.00
326	Opticom Directional Sensors, Model M511	EA	3.00		3.00	550.00	$1,650.00
327	Opticom Discriminator Module, Model M752	EA	1.00		1.00	2,500.00	$2,500.00
328	Coaxial Cable, Beldon #8261	LF	1,270.00		1,270.00	0.15	$190.50
329	3 Conductor Signal Cable (#14 AWG)(IMSA 20-1)	LF	1,270.00		1,270.00	0.15	$190.50
330	19' T Base Pole with 30' Mast Arm	EA	1.00		1.00	3,250.00	$3,250.00
331	19' T Base Pole with 35' Mast Arm	EA	1.00		1.00	3,400.00	$3,400.00
332	28' T Base Pole with 40' Mast Arm	EA	2.00		2.00	4,100.00	$8,200.00
333	Video Camera w/ Mounting Hardware	EA	5.00		5.00	1,800.00	$9,000.00
- 334	Small Roadside Sign Assembly, Type A	EA	15.00		16.00	300.00	$4,800.00
335	Relocate Small Roadside Sign Assembly	EA	3.00		3.00	115.00	$345.00

Approved
Jim Bowman Construction Company, L.P.

By: 2/11/04

David E. Miller 2/12/04

Steve Christman 2/13/04

Total Amount Of Work Done		$458,634.75
Less Retainage	0%	$0.00
Other - Completion Bonus		$25,000.00
Amount Payable on Contract		$458,634.75
Less Previous Payments		$433,980.36
Amount Due This Estimate		**$49,654.39**

TOWN OF ADDISON
PAYMENT AUTHORIZATION MEMO

DATE: 9/17/03 Claim # _____ Check $ 173,092.12

Vendor No. _____

Vendor Name JIM BOWMAN CONSTRUCTION CO., L.P.

Address 1111 SUMMIT AVE., SUITE 1

Address PLANO, TEXAS 75074

Address _____

Zip Code _____

INVOICE # OR DESCRIPTION	FUND	DEPT	OBJ	PROJ	SAC	AMOUNT
	(00)	(000)	(00000)	(00000)	(000)	($000,000.00)
	41	000	58210	42303		173,092.12

TOTAL $ 173,092.12

EXPLANATION INWOOD / SO. QUORUM RAIL CROSSING

Steve Chutchian
Authorized Signature

Finance

JIM BOWMAN CONSTRUCTION COMPANY, L.P.

1111 Summit Ave., Suite 1 Plano, Texas 75074 (972) 423-1313

Project Name: #614 - Inwood / South Quorum Access, Ph II
Type of Work: Paving and Drainage
Estimate Period: July 28, 2003 to August 30, 2003

Payable To: Jim Bowman Construction Co., L.P.
1111 Summit Ave., Suite 1
Plano, Texas 75074

Estimate No. 1
Contract Date June 24, 2003
Contract Amt. $438,778.10
w/ CO#1 $451,907.10

Item	Description	Unit of Measure	Contract Quantity	Work Done This Month	Total Work Done on Contract	Contract Price	Amount
	BID SCHEDULE "A" - ROADWAY IMPOVEMENTS						
101	Barricading/Signage/Traffic Control	MO	6.00	2.00	2.00	1,250.00	$2,500.00
102	Prepare R.O.W.	STA	8.00	8.00	8.00	2,125.00	$17,000.00
103	Remove Existing Concrete Pvmt / Drive	SY	1,954.60	1,700.00	1,700.00	10.00	$17,000.00
104	Railroad Flagman	LS	1.00	0.10	0.10	6,250.00	$625.00
105	Unclassified Street Excavation	CY	321.00	300.00	300.00	15.00	$4,500.00
106	Roadway Embankment	CY	227.00	227.00	227.00	20.00	$4,540.00
107	Block Sod / Watering / Fertilizer	SY	1,338.00			3.00	
108	10" - 4000psi R.C. Pavement	SY	2,644.00	358.05	358.05	48.50	$17,365.43
109	Design / Restore Irrigation System	LS	1.00	0.25	0.25	8,000.00	$2,000.00
110	Mobilization	LS	1.00	1.00	1.00	20,200.00	$20,200.00
111	6" - 4000psi Integral Concrete Curb	LF	1,517.20	150.80	150.80	3.00	$452.40
112	4" - 4000psi RC Sidewalk	SY	25.60			36.00	
113	R.C. Wheelchair Ramps	EA	2.00			400.00	
114	6" - 4000psi R.C. Driveway	SY	109.30			40.00	
115	Landscape Pavers w/ Concrete Base	SF	473.00			5.00	
116	4" Reflective Type II CR	EA	34.00			2.60	
117	4" Non-Reflective White Buttons	EA	102.00			2.20	
118	4" Reflective Type II AA	EA	42.00			2.60	
119	4" Non-Reflective Yellow Buttons	EA	152.00			2.20	
120	6" Reflective Type I C Jiggle Bars	EA	43.00			11.00	
121	24" White Thermo Stop Bar	LF	166.00			4.50	
122	12" White Thermo X Walk	LF	167.00			2.00	
123	Thermo Pav. Arrows	EA	10.00			75.00	
124	4" Temporary Lane Marker	LF	6,320.00	3,458.00	3,458.00	0.80	$2,766.40
125	6" PVC Irrigation Sleeve	LF	88.00	360.00	360.00	7.00	$2,520.00
126	Remove Existing Jiggle Bars	EA	71.00			3.00	
127	Concrete Railroad Header	CY	7.00	2.29	2.29	400.00	$916.00
128	2" HMAC	TON	26.30			80.00	
129	Adjust Utility Manhole, Valve Box, etc.	EA	6.00			420.00	
	BID SCHEDULE "B" - STORM WATER IMPROVEMENTS						
201	18-inch Cl. III R.C.P.	LF	707.00	511.00	511.00	57.00	$29,127.00
202	24-inch Cl. III R.C.P.	LF	486.00	494.00	494.00	67.00	$33,098.00
203	Type "M" Manhole	EA	2.00	2.00	2.00	3,500.00	$7,000.00
204	Remove/Replace Existing Pavement	SY	24.90			75.00	
205	5-ft Type "C" Curb Inlet	EA	5.00	2.00	2.00	2,250.00	$4,500.00
206	Trench Safety Design	LS	1.00	1.00	1.00	600.00	$600.00
207	Trench Safety	LF	1,213.00	1,228.00	1,228.00	1.00	$1,228.00
208	Install, Maintain, Remove Inlet Protection	EA	5.00			270.00	
209	Install, Maintain, Remve Rock Filter Dams	LF	50.00			27.00	
210	Install, Maintain, Remove Silt Fence	LF	200.00			3.70	
211	12-inch Cl. IV R.C.P.	LF	188.00	224.00	224.00	61.00	$13,664.00
212	Pre-Cast Safety End Treatment, Type II, 2-12"	EA	2.00			1,800.00	
213	Connect 24" R.C.P. to Existing Curb Inlet	LS	1.00	1.00	1.00	600.00	$600.00

JIM BOWMAN CONSTRUCTION COMPANY, L.P.

1111 Summit Ave., Suite 1 Plano, Texas 75074 (972) 423-1313

Item	Description	Unit of Measure	Contract Quantity	Work Done This Month	Total Work Done on Contract	Contract Price	Amount
	BID SCHEDULE "C" - SIGNALIZATION						
301	3" Schedule 40 PVC Trenched	LF	40.00			5.00	
302	4" Schedule 40 PVC Bored	LF	250.00			15.00	
303	4" Rigid Metal Conduit Bored	LF	90.00			21.00	
304	#6 AWG Bare Electrical Wire	LF	440.00			0.50	
305	Type A Ground Box with Apron	EA	4.00			550.00	
306	Traffic Sign (SR3-1), Mast Arm Pole Mount, LED	EA	2.00			2,450.00	
307	Traffic Sign (SR3-4), Mast Arm Mount	EA	4.00			100.00	
308	Traffic Sign (SR3-8), Mast Arm Mount	EA	2.00			100.00	
309	Traffic Sign (R3-5) Mast Arm Mount	EA	1.00			150.00	
310	Traffic Sign (R10-12S) Mast Arm Mount	EA	1.00			75.00	
311	Signal Pole Concrete Foundation (Type 30-A)	EA	2.00			1,500.00	
312	Signal Pole Concrete Foundation (Type 36-A)	EA	2.00			1,700.00	
313	12"-3 Section LED Signal Head (Type V3)	EA	10.00			830.00	
314	12"-4 Section LED Signal Head with GreenTurn (V4LT)	EA	3.00			1,000.00	
315	12"-4 Section LED Signal w/ Green/Yellow Turn Arrow	EA	3.00			1,000.00	
316	Vacuum Formed Backplate, 3 Section	EA	10.00			45.00	
317	Vacuum Formed Backplate, 4 Section	EA	6.00			55.00	
318	3 Section Astro Brac w/ 29" Bands	EA	10.00			100.00	
319	4 Section Astro Brac w/ 29" Bands	EA	6.00			105.00	
320	Pedestrian LED Signal Head w/ Countdown Timer	EA	2.00			800.00	
321	4 CNDR Opticom Cable, Model M138	LF	800.00			1.00	
322	5 CNDR Signal Cable (#16 AWG)(IMSA 20-1)	LF	560.00			0.50	
323	7 CNDR Signal Cable (#16 AWG)(IMSA 20-1)	LF	265.00			0.60	
324	16 CNDR Signal Cable (#12 AWG)(IMSA 20-1)	LF	970.00			2.00	
325	Pedestrian Push Button & R10-4B Sign Assembly	EA	2.00			150.00	
326	Opticom Directional Sensors, Model M511	EA	3.00			550.00	
327	Opticom Discriminator Module, Model M752	EA	1.00			2,500.00	
328	Coaxial Cable, Beldon #8261	LF	1,270.00			0.15	
329	3 Conductor Signal Cable (#14 AWG)(IMSA 20-1)	LF	1,270.00			0.15	
330	19' T Base Pole with 30' Mast Arm	EA	1.00			3,250.00	
331	19' T Base Pole with 35' Mast Arm	EA	1.00			3,400.00	
332	28' T Base Pole with 40' Mast Arm	EA	2.00			4,100.00	
333	Video Camera w/ Mounting Hardware	EA	5.00			1,800.00	
334	Small Roadside Sign Assembly, Type A	EA	15.00			300.00	
335	Relocate Small Roadside Sign Assembly	EA	3.00			115.00	

Approved
Jim Bowman Construction Company, L.P.

By: _____ 9/5/03

9/12/03

9/17/03

Total Amount Of Work Done		$182,202.23
Less Retainage	5%	$9,110.11
Other		
Amount Payable on Contract		$173,092.12
Less Previous Payments		
Amount Due This Estimate		**$173,092.12**

Jim Bowman Construction Co., L.P.
Daily Pavement Measurement Sheet

Job # 614
Measured: 8-29-03
Poured: 8-28-03
Foreman: ID

Owner: Addison
Project: Inwood / Quorum

	Location/Address	Length	Width	Curb	Butt Jt.	UCH	Comments
1	Item 112 = 10" Pvmt		item	115=	int	curb	
2	Landmark Pl & Landmark Blvd	70 5/12	5 0/12				
3	W. Landmark Blvd	125 3/12	2 1/12				
4	E. RR Tracks	30 6/12	37 4/12				
5		ext (26 0/12 r)		46 3/12			
6				44 8/12			
7		8 0/12	14 7/12				
8		ext (4 0/12 r)					
9		ext (4 0/12 r)					
10		24 9/12	36 3/12				
11		ext (35 5/12 r)		59 7/12			
12			115=	150 3/12 lf			
13	112 =	358 05/12 - 54					
14							
15	RR Header =	0 15/12 x	1 1/12 x	70 5/12	= 2 29/27 cy		
16							
17							
18							
19							
20							
	TOTALS						

12' x 1' x 125 = 1500 sf

10" = 99.46 cy

Curb 125 lf

COWLES & THOMPSON
A Professional Corporation
ATTORNEYS AND COUNSELORS

FACSIMILE COVER PAGE

Date and Time Faxed: Thursday, October 03, 2002 7:41:08 AM
Total Number of Pages (including cover sheet): 02
Client/Matter #: 3195\25211

To:
Name: Jim Pierce
Company:
Fax Number: 972-450-2837
Voice Phone:

From:
Name: John Hill
Fax Number: 214-672-2370
Voice Phone: 214-672-2170

cc Mike
Steve
Re Landmark Place
RR xing
Insurance
FYI
Jim

Message:

Jim--this is from Bob Lazarus, insurance consultant for the Town, regarding the insurance requirements in the crossing agreement.

DALLAS TYLER

901 MAIN STREET SUITE 4000 DALLAS, TEXAS 75202-3793
TEL 214.672.2000 FAX 214.672.2020
WWW.COWLESTHOMPSON.COM

RWL GROUP

Fax Cover Sheet

Email: rwlgroup@rwlgroup.com
Internet: www.rwlgroup.com
Phone: 972-907-9095
Fax: 972-907-9198

THIS TRANSMISSION CONTAINS 1 PAGE(S).

HARD COPY FOLLOWS VIA REGULAR SURFACE MAIL [ ] YES [XX] NO

DATE: OCTOBER 1, 2002

TO: JOHN HILL
COWLES & THOMPSON

FROM: BOB LAZARUS

FAX: 214-672-2370

RE: TOWN OF ADDISON
RAILROAD CONTRACT

My tentative suggestions, pending discussion with TML, are as follows:

CGL

a. TML will not provide a waiver of immunity endorsement.
b. Endorse TML coverage naming the railroad as indemnitee and waiver of subrogation in favor of the railroad.
c. Require the GC to comply with the contractual insurance requirement and name Addison and the railroad as additional insureds on a primary basis with waivers of subrogation in favor of the Town and the railroad.

AUTO

a. Endorse TML coverage naming the railroad as indemnitee.
b. Require the GC to comply with the contractual insurance requirement and name Addison and the railroad as additional insureds on a primary basis with waivers of subrogation in favor of the Town and the railroad.

WORKERS COMP

a. Endorse the TML coverage with a waiver of subrogation coverage in favor of the railroad.
b. Require the GC to maintain this coverage with waivers of subrogation in favor of the Town and the railroad.

RAILROAD PROTECTIVE LIABILITY INSURANCE

a. Either town Town or GC can purchase this coverage. (Set up for GC purchase) gvp

MISCELLANEOUS

a. The Town will provide the requested certificates of insurance to the railroad as noted above.
b. The GC will provide certificates to the Town and the railroad as applicable.
c. Note that the Town places its insurance with TML, which is unrated and therefore does not comply with the B:VII insurer requirement. ←

I will be talking to the TML underwriter tomorrow.

TOWN OF ADDISON

FINANCE DEPARTMENT/PURCHASING DIVISION 5350 Belt Line Road (972) 450-7091
E-mail purchasing@ci.addison.tx.us Facsimile (972) 450-7096 P.O. Box 9010 Addison, Texas 75001

July 30, 2003

Jim Bowman Construction Co., L.P.
Jim Bowman
111 Summit Ave., Suite 1
Plano, TX 75074

Re: NOTICE TO PROCEED- BID NO. 03-20 Inwood/South Quorum Access Phase II:Inwood Connection

Dear Mr. Bowman:

This document shall serve as your Notice to Proceed for the above referenced Project, and is issued and effective July 30, 2003 to provide all labor and materials as outlined in the specifications, and under the terms and conditions of the contract documents. Enclosed is your copy of the signed contract.

The proposed improvements and work shall be completed within one-hundred forty (140) calendar days, with the original contract price of $438,778.10. Please include the Project name and Bid No. 03-20 on all monthly invoices or other correspondence to the Town of Addison.

Should you have any questions, please contact my office at 972-450-7091.

Sincerely,

Minok Suh
Purchasing Coordinator

Enclosure

Cc: Steve Chutchian
Luke Jalbert

P.W.

SECTION CA
CONTRACT AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this __24__ day of ___**June**_____, 2003, by and between the Town of Addison, of the County of Dallas and State of Texas, acting through its City Manager, thereunto duly authorized so to do, Party of the First Part, hereinafter termed the OWNER, and ____ **Jim Bowman Construction Co., L.P**__, of the City of __**Plano**___, County of ___**Collin**__, State of ___**TX**_____, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by the OWNER, the said CONTRACTOR hereby agrees with the said OWNER to commence and complete construction of certain improvements as follows:

Paving, Storm Water, and Signalization Improvements
Inwood/South Quorum Access - Phase II: Inwood Connection

and all extra work in connection therewith, under the terms as stated in the General and Specific Conditions of the AGREEMENT; and at his own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans, Addendums and other drawings and printed or written explanatory matter thereof, and the Technical Specifications and Addenda thereto, as prepared by the OWNER, each of which has been identified by the endorsement of the CONTRACTOR and the OWNER thereon, together with the CONTRACTOR's written Proposal and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The CONTRACTOR hereby agrees to commence work within five (5) calendar days after the date of written notice to do so shall have been given to him, and to complete all work within 180 calendar days after he commences work, subject to such extensions of time as are provided by the General Provisions.

The OWNER agrees to pay the CONTRACTOR _____Four Hundred Thirty Eight, Seven Hundred Seventy E Eight Thousand and Ten Cents ($___438,778.10__) in current funds for the performance of the Contract in accordance with the Proposal submitted thereof, subject to additions and deductions, as provided in the General Provisions, and to make payments of account thereof as provided therein.

IN WITNESS WHEREOF, the parties of these presents have executed this AGREEMENT in the year and day first above written.

TOWN OF ADDISON

(OWNER)

By: _____

City Manager

ATTEST:

_____

City Secretary

(CONTRACTOR) _____

By: _____

_____

Printed or Typed Named

ATTEST:

_____

The following to be executed if the CONTRACTOR is a corporation:

I, _____, certify that I am the secretary of the corporation named as CONTRACTOR herein; that _____, who signed this Contract on behalf of the CONTRACTOR is the _____ of said corporation; that said Contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Signed: _____

Corporate Seal

TEXAS STATUTORY PERFORMANCE BOND
(PUBLIC WORKS)

KNOW ALL MEN BY THESE PRESENTS, That Jim Bowman Construction Company, L.P. 1111 Summit Ave., S-1, Plano, Tx., 75074 (hereinafter called the Principal), as Principal, and First National Insurance Company of America

a corporation organized and existing under the laws of the State Washington licensed to do business in the State of Texas and admitted to write bonds, as surety, (hereinafter called the Surety), are held and firmly bound unto Town of Addison, Texas, P.O. Box 9010, Addison, Tx. 75001

(hereinafter called the Obligee), in the amount of Four Hundred Thirty Eight Thousand Seven Hundred Seventy Eight and 10/100 ---------- (Dollars) ($ 438,778.10) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, the Principal has entered into a certain contract with the Obligee, dated the 24th day of June , 2003 , for Paving, Storm Water, and Signalization Improvements for Inwood/South Quorum Access-Phase II: Inwood Connection, 03-20

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, That if the said Principal shall faithfully perform the work in accordance with the plans, specifications and contract documents, then this obligation shall be null and void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of said Chapter to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this 1st day of July , 2003 .

ATTEST:

By: Nicki Holt

(Seal)

PRINCIPAL: Jim Bowman Construction Company, L.P.
1111 Summit Ave., S-1, Plano, Tx., 75074

By: G.M.

SURETY: First National Insurance Company of America

By:
Raymon R. Dyer, Attorney-in-Fact

APPROVED AS TO FORM:

By:
Obligee

S-4117/GEEF 11/97

TEXAS STATUTORY PAYMENT BOND
(PUBLIC WORKS)

KNOW ALL MEN BY THESE PRESENTS: That Jim Bowman Construction Company, L.P. 1111 Summit Ave., S-1, Plano, Tx., 75074 (hereinafter called the Principal), as Principal, and First National Insurance Company of America, a corporation organized and existing under the laws of the State Washington licensed to do business in the State of Texas and admitted to write bonds, as surety (hereinafter called the Surety), are held and firmly bound unto Town of Addison, Texas, P.O. Box 9010, Addison, Tx. 75001 (hereinafter called the Obligee), in the amount of Four Hundred Thirty Eight Thousand Seven Hundred Seventy Eight and 10/100 ---------- Dollars, ($ 438,778.10) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, the Principal has entered into a certain contract with the Obligee, dated the 24th day of June , 2003 , for Paving, Storm Water, and Signalization Improvements for Inwood/South Quorum Access-Phase II: Inwood Connection, 03-20

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, That if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then this obligation shall be null and void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of said Chapter to the same extent as if it were copied at length herem.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument 1st day of July , 2003 .

ATTEST:

By: Vicki Holt

(Seal)

Jim Bowman Construction Company, L.P.
PRINCIPAL: 1111 Summit Ave., S-1, Plano, Tx., 75074

By: G.M.

SURETY: First National Insurance Company of America

By: Raymon R. Dyer, Attorney-in Fact

APPROVED AS TO FORM:

By: _____
Obligee

S-4118/GEEF 11/97

SAFECO Insurance Company
PO Box 34526
Seattle, WA 98124-1526

FIRST NATIONAL SURETY

MAINTENANCE BOND **Bond 6214213**

KNOW ALL BY THESE PRESENTS, That we, Jim Bowman Construction Company, L.P.

as Principal, and FIRST NATIONAL INSURANCE COMPANY OF AMERICA,

a corporation organized under the laws of the State of Washington and duly authorized to do business in

the State of Texas, as Surety, are held and firmly bound unto Town of Addison, Texas

as Obligee, in the penal sum of Four Hundred Thirty Eight Thousand Seven Hundred Seventy Eight and 10/100 ----------

---------- ($ 438,778.10)

to which payment well and truly to be made we do bind ourselves, our and each of our heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents.

WHEREAS, the said Principal entered into a Contract with the

Town of Addison, Tx dated 06/24/2003

for Paving, Storm Water, and Signalization Improvements for Inwood/South Quorum Access-Phase II Inwood Connection, 03-20

WHEREAS, said Contract has been completed, and was approved on

day of , .

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, That if the Principal shall guarantee that the work will be free of any defective materials or workmanship which became apparent during the period of one year year(s) following completion of the Contract then this obligation shall be void, otherwise to remain in full force and effect, provided however, any additional warranty or guarantee whether expressed or implied is extended by the Principal or Manufacturer only, and the Surety assumes no liability for such a guarantee.

Signed and sealed this 1st day of July , 2003 .

Jim Bowman Construction Company, L.P. (Seal)

GM (Seal)

(Seal)

FIRST NATIONAL INSURANCE COMPANY OF AMERICA

By
Raymon R. Dyer Attorney-in-Fact

FIRST NATIONAL SURETY™

POWER OF ATTORNEY

FIRST NATIONAL INSURANCE COMPANY OF AMERICA
4333 BROOKLYN AVE NE
SEATTLE, WASHINGTON 98105

4333 Brooklyn Avenue N.E.
Seattle, WA 98105

No. 10538

KNOW ALL BY THESE PRESENTS:

That **FIRST NATIONAL INSURANCE COMPANY OF AMERICA,** a Washington corporation, does hereby appoint
**********RAYMON R. DYER; PERRY MAX; TAMMI ENTRIKEN; Garland, Texas**********

its true and lawful attorney(s)-in-fact, with full authority to execute on behalf of the company fidelity and surety bonds or undertakings and other documents of a similar character issued by the company in the course of its business, and to bind **FIRST NATIONAL INSURANCE COMPANY OF AMERICA** thereby as fully as if such instruments had been duly executed by its regularly elected officers at its home office.

IN WITNESS WHEREOF, FIRST NATIONAL INSURANCE COMPANY OF AMERICA has executed and attested these presents

this 3rd day of May, 2000.

R A Pierson
R.A. PIERSON, SECRETARY

W. Randall Stoddard
W. RANDALL STODDARD, PRESIDENT

CERTIFICATE

Extract from the By-Laws of **FIRST NATIONAL INSURANCE COMPANY OF AMERICA**:

"Article V, Section 13. - FIDELITY AND SURETY BONDS ... the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business... On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of
FIRST NATIONAL INSURANCE COMPANY OF AMERICA adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,
(i) The provisions of Article V, Section 13 of the By-Laws, and
(ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
(iii) Certifying that said power-of-attorney appointment is in full force and effect,
the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, R.A. Pierson, Secretary of **FIRST NATIONAL INSURANCE COMPANY OF AMERICA**, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of this corporation, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 1st day of July, 2003.

FIRST NATIONAL INSURANCE COMPANY OF AMERICA CORPORATE SEAL 1928 STATE OF WASHINGTON

R A Pierson
R.A. PIERSON, SECRETARY

SAFECO

State of Texas Surety Bond Claim Notice

In accordance with Section 2253.021(f) of the Texas Government Code and Section 53.202(6) of the Texas Property Code, any notice of claim to the named surety under this bond(s) should be sent to:

SAFECO Surety
Adams Building
4634 154th PL NE
Redmond, WA 98052

Mailing Address:
SAFECO Surety
PO Box 34526
Seattle, WA 98124

Phone: (425) 376-6535
Fax: (425) 376-6533
www.SAFECO.com

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY) 07/02/2003

PRODUCER (972)864-0400 FAX (972)278-8400
Davis-Dyer-Max, Inc.
P.O. Box 495429
Garland, TX 75049
Gina R. Gold

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURED Jim Bowman Construction Co., L.P.
1111 Summit Avenue
Suite 1
Plano, TX 75074

INSURER A:	EMC Insurance Companies
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC	2D08787	12/12/2002	12/12/2003	EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY [X] ANY AUTO [X] ALL OWNED AUTOS [X] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS	2E08787	12/12/2002	12/12/2003	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
	GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
A	EXCESS LIABILITY [X] OCCUR [ ] CLAIMS MADE [ ] DEDUCTIBLE [X] RETENTION $ 10,000	2J08787	12/12/2002	12/12/2003	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000 $ $ $
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	2H08787	12/12/2002	12/12/2003	[X] WC STATUTORY LIMITS [ ] OTHER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 500,000 $ 500,000 $ 500,000
A	OTHER Equipment Floater	2C08787	12/12/2002	12/12/2003	Schedule on file with co. $200,000 Leased/Rented	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS
Bid NO: 03-20 Paving, Storm Water, and Signalization Improvements Inwood/South Quorum Access - Phase II: Inwood Connection

CERTIFICATE HOLDER [ ] ADDITIONAL INSURED; INSURER LETTER ____

Town Of Addison
5350 Belt Line Rd
P O Box 9010
Addison, TX 75001

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
Raymon Dyer/GRG

FINANCE DEPARTMENT/PURCHASING DIVISION 5350 Belt Line Road (972) 450-7091
E-mail msuh@ci.addison.tx.us Facsimile (972) 450-7096 P.O. Box 9010 Addison, Texas 75001

January 5, 2004

Jodie Couch
Site Concrete, Inc.
3340 Roy Orr
Grand Prairie, TX 75050

Re: NOTICE TO PROCEED- Spectrum Drive North/South Extension

Dear Ms. Couch:

This document shall serve as your Notice to Proceed for the above referenced Project, and is issued and effective January 12, 2004 to provide all labor and materials as outlined in the specifications, and under the terms and conditions of the contract documents. Enclosed is your copy of the signed contract.

The proposed improvements and work shall be completed within 210 calendar days, with the original contract price of $2,536,979.50. Please include Bid No. and Name: 04-03 Spectrum Drive North/South Extension, on all monthly invoices or other correspondence to the Town of Addison.

Should you have any questions, please contact my office at 972-450-7091.

Sincerely,

Minok Suh
Purchasing Coordinator

Enclosure

Cc: Steve Chutchian
Luke Jalbert
Bryan Piper, Site Concrete, Inc.

Next Screen

Statement of Account - 1 Year

Organization # 1

PIN # 10004580000030000

Tax Year 2002 Prop Type R

Site Address 14639 INWOOD RD ADDISON TX 75001

Legal INWOOD PARK NORTH

Int/Disc Date 11603

Account # 1520

Print

BP	Levied Tax	Unpaid Tax	Unpaid Fee	I/D to Dt	Tot. Pd/Adj	Int Paid	Lst Pd
2							
1	8876.74+	8876.74+					
Yr	8876.74+	8876.74+					

Bal This Yr 8876.74+ Bal Other Yrs Tot Due All Yrs 8876.74+

Owner Name

FRIDAY MORNING INC
14621 INWOOD RD
ADDISON TX 75001-3769

Auxillary Files

Non-Ad Tax

Total

Class F10
Mortcode 825
AC/SF S
Assd 2219740+
Exmt
Txbl 2219740+

OK

Next Screen

Statement of Account - 1 Year

Organization # 1
PIN # 10004580000010000
Tax Year 2002 Prop Type R
Site Address 14601 INWOOD RD ADDISON TX 75001
Legal INWOOD PARK NORTH

Int/Disc Date 11603
Account # 1517
Print

BP	Levied Tax	Unpaid Tax	Unpaid Fee	I/D to Dt	Tot. Pd/Adj	Int Paid	Lst Pd
2							
1	4711.22+	4711.22+					
Yr	4711.22+	4711.22+					

Bal This Yr 4711.22+ Bal Other Yrs Tot Due All Yrs 4711.22+

Owner Name

FRIDAY MORNING INC
14621 INWOOD RD
ADDISON TX 75001-3769

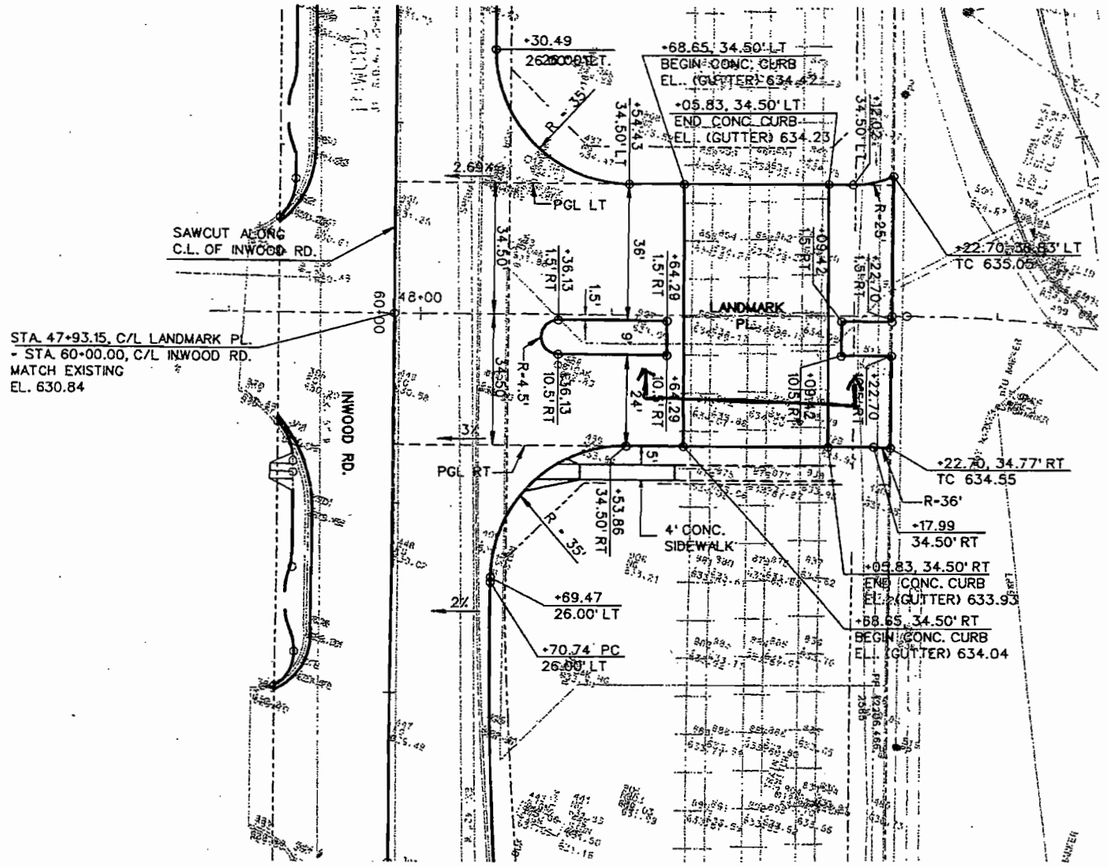
Auxillary Files

Non-Ad Tax

Total

Class F10
Mortcode 825
AC/SF S
Assd 1178100+
Exmt
Txbl 1178100+

OK



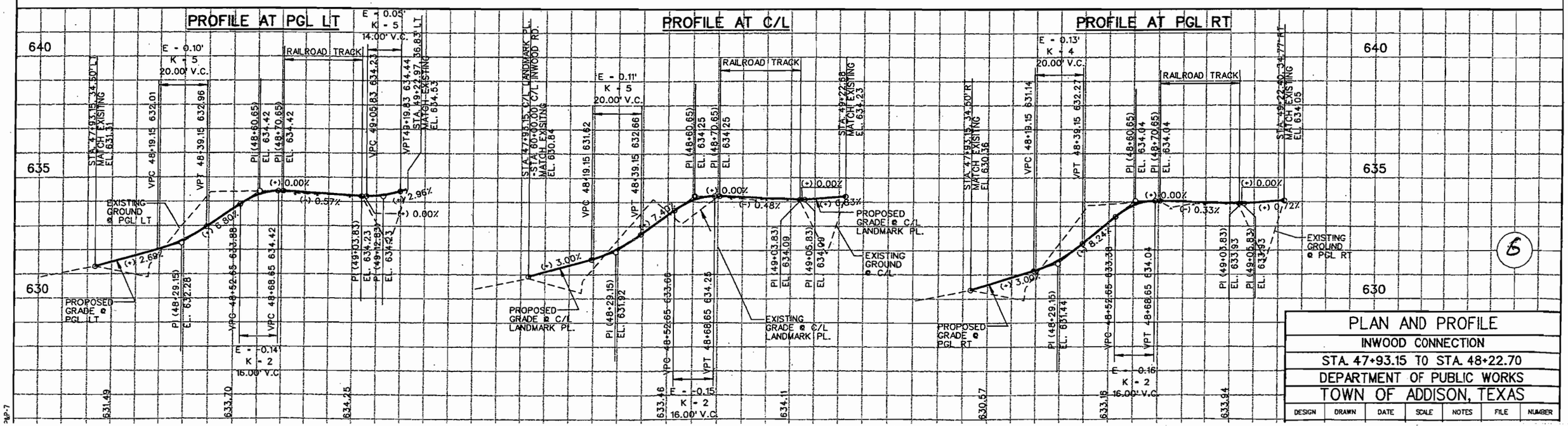
Weidong: We need a typical Section (where shown) showing how the railroad crossing panels match up with over pavement. We want a "leveling leavout" placed in our pavement to allow us to match grades with asphalt to get a smooth crossing. Hopefully you have a detail from another job you can adapt. Please call if you have any questions.

Jim Pierce
972-450-2879
11-4-02

HORIZONTAL SCALE :
0 10 20 30 40 50 60

VERTICAL SCALE :
0 1 2 3 4 5 6

NOTE:
1. ALL DIMENTIONS ARE FACE TO FACE OF CURB, UNLESS OTHERWISE NOTED.
2. SEE PLAN AND PROFILE SHEET 8 FOR PAVING DETAILS ON INWOOD ROAD.



PLAN AND PROFILE						
INWOOD CONNECTION						
STA. 47+93.15 TO STA. 48+22.70						
DEPARTMENT OF PUBLIC WORKS						
TOWN OF ADDISON, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NUMBER

6

TOWN OF ADDISON
PAYMENT AUTHORIZATION MEMO

DATE: 2/8/05 Claim # _____ Check $ 2,566.50

Vendor No. _____

Vendor Name PARSONS

Address 15770 N. DALLAS PKWY., SUITE 500

Address DALLAS, TEXAS 75248

Address INVOICE # 05020422

Zip Code CLIENT # 51663

INVOICE # OR DESCRIPTION	FUND	DEPT	OBJ	PROJ	SAC	AMOUNT
	(00)	(000)	(00000)	(00000)	(000)	($000,000.00)
	41	000	56570	42303		2566.50

TOTAL # 2566.50

EXPLANATION FINAL DESIGN PAYMENT FOR INWOOD/S. QUORUM PROJECT

Steve Chutchian
Authorized Signature

Finance

PARSONS

15770 North Dallas Parkway • Suite 500 • Dallas, Texas 75248 • (972) 991-1900 • Fax: (972) 490-9261 • www.parsons.com

February 1, 2005

Mr. Steven Z. Chutchian, P.E.
Town of Addison
P.O. Box 9010
Addison, Texas 75001-9010

Subject: *Inwood Connection*
Invoice No. 05020422

Dear Steven,

Attached is our invoice number 05020422 for the above referenced project. This invoice covers work performed during the period from April 26, 2003, through February 1, 2005.

During this period, we have completed the following tasks:

1. Responded to contractor's questions during construction.
2. Provided final design files in Microstation format.

As of today, the project is complete and all issues have been resolved, therefore, we will proceed with the closure of this contract. If you have questions or comments regarding the invoice or contract, please don't hesitate to contact me. We appreciate the opportunity to be of service to you and look forward to working on future projects for the Town of Addison.

Very truly yours,

PARSONS

Weidong Li

Weidong Li, P.E.
Project Manager

To ensure proper processing of your payment, please print the following on your remittance.

Client #51663 Invoice # 05020422

PARSONS

15770 North Dallas Parkway • Suite 500 • Dallas, Texas 75248 • (972) 991-1900 • Fax: (972) 490-9261 • www.parsons.com

INVOICE

February 1, 2005

CLIENT REF.:
INVOICE NO.: 05020422
PROJECT NO.: 643314
CLIENT NO.: 51663

TO: TOWN OF ADDISON
P.O. BOX 9010
ADDISON, TX 75001-9010

ATTN: MR. STEVEN CHUTCHIAN, P.E.

PLEASE REMIT TO:
PARSONS TRANSPORTATION GROUP INC.
C/O JPMORGAN CHASE BANK
P.O. BOX 88960
CHICAGO, IL 60695-1960

FOR: SOUTH QUORUM/INWOOD CONNECTION
ENGINEERING DESIGN

	CURRENT PERIOD THROUGH 02/01/05	CUMULATIVE-TO-DATE THROUGH 02/01/05
BASIC ENGINEERING FEE $62,500 PERCENT COMPLETE: 100%	0.00	62,500.00
SIGNAL TIMING PLAN $3,600 PERCENT COMPLETE: 100%	0.00	3,600.00
SURVEYING/EXPENSE $23,000 PERCENT COMPLETE: 100%	0.00	23,000.00
GEOTECHNICAL REPORT $6,000 PERCENT COMPLETE: 100%	0.00	6,000.00
S/A 1-SIGNAL PLAN ADJUSTMENTS $3,605 PERCENT COMPLETE: 100%	0.00	3,605.00
S/A 2-SURVEYING $3,600 PERCENT COMPLETE: 100%	0.00	3,600.00
S/A 3-RR CROSSING $4,585 PERCENT COMPLETE: 100%	0.00	4,585.00
S/A 4-INWOOD/SOUTH QUORUM ACCESS PHASE II $17,110 PERCENT COMPLETE:100%	2,566.50	17,110.00
TOTAL THIS INVOICE:	2,566.50	124,000.00
MAXIMUM BILLABLE:		$124,000.00
TOTAL BILLED ITD:		$124,000.00
REMAINING TO BILL:		$0.00

COWLES & THOMPSON
A Professional Corporation
ATTORNEYS AND COUNSELORS

ANGELA K. WASHINGTON
214.672.2144
AWASHINGTON@COWLESTHOMPSON.COM

March 11, 2004

Mr. Ron Whitehead
City Manager
Town of Addison
P.O. Box 9010
Addison, TX 75001-9010

Re: Correction Special Warranty Deed for Parcel 5, Spectrum Drive Right-of-Way Project

Dear Ron:

Enclosed is the original Correction Special Warranty Deed for Parcel 5, Spectrum Drive Right-of-Way Project. As you will note, the Deed has been executed by Post Services. Once you have executed the Deed and had it notarized, please return it directly to me. If you have any questions, please give me a call.

Sincerely,

Angela K. Washington

AKW/yjr
Enclosure

c(w/o Enc): Ms. Carmen Moran
(w/o Enc.) Mr. Mike Murphy
(w/o Enc.) Mr. Kenneth C. Dippel

JIM BOWMAN CONSTRUCTION COMPANY, L.P.

1111 Summit Ave., Suite I ■ Plano, Texas 75074 ■ (972) 423-1313

November 17, 2003

Town of Addison
16801 Westgrove Dr.
P.O. Box 9010
Addison, Texas 75001-9010

Attn: Mr. Steve Chutchian, P.E. Assistant City Engineer

Re: Inwood – South Quorum Access, Ph. I, Bid #03-20

Dear Mr. Chutchian:

All items of work and corrective punch list items on the above referenced project were completed as of 5:00 p.m. Friday, November 14, 2003, with the exception of about two hours work on signalization which cannot be accomplished until the railroad company has completed their work on the crossing arms.

We hereby request to be paid the incentive payment amounting to the maximum payment in the amount of $30,000.00 (based on 107 total calendar days used less utility shut down from September 24, 2003 thru October 30, 2003).

Please let me know if you need additional information.

Sincerely,

Jim Bowman
General Manager
vh

$25,000 MAX. INCENTIVE

TOWN OF ADDISON®
FINANCE DEPARTMENT/PURCHASING DIVISION 5350 Belt Line Road (972) 450-7091
Facsimile (972) 450-7096 P.O. Box 9010 Addison, Texas 75001

Your Copies of 2 letters 03-19 & 03-20

June 24, 2003

Fast Forward Demolition
Mickey Hemby
Rt. 5 Box 305-F
Bonham, TX 75418

NOTICE OF AWARD: 03-19 Arapaho Phase III Demolition

Dear Mr. Hemby:

Receipt of this document authorizes your company to provide all labor and materials as outlined in the specifications, and under the terms and conditions of the contract documents for Bid No: 03-19.

Enclosed please find four (4) completed copies of the contract to be signed by an authorized officer or principal of your firm.

Please send the signed contracts along with the necessary insurance certificates, Maintenance and Payment Bonds as soon as possible to the Procurement Office at PO Box 9010, Addison TX 75001-9010, but no later than July 9, 2003. The City Manager, Ron Whitehead, will sign the contracts and a Notice to Proceed will be issued to you, along with an original copy of the agreement.

If you have any questions or if I can be of assistance to you, please contact me at 972-450-7089 or Minok Suh, Procurement Coordinator, at 972-450-7091.

Sincerely,

Jennie Eastman
Procurement Manager

Enclosures

Copy: Steve Chutchian
Luke Jalbert

JIM BOWMAN CONSTRUCTION CO., L.P.
1111 Summit Ave., Suite 1
PLANO, TEXAS 75074

(972) 423-1313

LETTER OF TRANSMITTAL

TO Town of Addison

DATE	JOB NO.
July 16, 2003	614

ATTENTION Mr. Luke Jalbert, Proj. Mgr.

RE: 114000-So. Quorum Access Ph. 1

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
4	7/14/03		LMC Mix Design # 1261 (5 Sack)
4	7/15/03		LMC " " # 1701 (4000 psi)
4	7/14/03		LMC " " # 2925 (8 Sack)

THESE ARE TRANSMITTED as checked below:

☑ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☑ Return 1 corrected prints

☐ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 20 _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: _____

If enclosures are not as noted, kindly notify us at once

LMC

Date: 14-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1"- #4 Crushed Stone

Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use FOR USE IN MISC. STRUCTURES

Mix No.	1261	(5 SK, WR, AIR)
Strength @ 28 Days	3000	psi
	Air	
Cement	470	lbs
	0	lbs
Coarse Aggregate	1850	lbs
Fine Aggregate	1354	lbs
Water	250	lbs
Admixture Water Reducer	19	ozs
AEA	3.1	ozs
Total Weight	3924	lbs
Unit Weight	145.34	pcf
W/Cm Ratio	0.53	
Fly Ash Replacement	0%	
Maximum Temperature	95	° F
Slump	3-5	inches
Entrained Air	3-6%	

This mix design submittal and or price quote is proprietary and confidential and not to be shared nor transmitted in any form to any person or organization that is not expressly authorized in writing by a designated official of Lattimore Materials Company. Any unauthorized person or entity in possession of this information will be prosecuted to the fullest extent of the law.

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

RD

Lattimore Materials Company
P.O. Box 556 - McKinney, Texas 75070-0556
(972) 221-4646 - (972) 569-4646
www.lmctx.com

LMC

Date: 15-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1"- #4 Crushed Stone

Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use		Hand Paving	
Mix No.		1701	(6 SK,WR,AIR)
Strength @ 28 Days		4000	psi
		Air	
Cement		564	lbs
		0	lbs
Coarse Aggregate		1850	lbs
Fine Aggregate		1245	lbs
Water		262	lbs
Admixture	Water Reducer	23	ozs
AEA		3.7	ozs
Total Weight		3921	lbs
Unit Weight		145.21	pcf
W/Cm Ratio		0.46	
Fly Ash Replacement		0%	
Maximum Temperature		95	° F
Slump		3-5	inches
Entrained Air		3-6%	

FOR USE IN ALL PAVING ITEMS

This mix design submittal and or price quote is proprietary and confidential and not to be shared nor transmitted in any form to any person or organization that is not expressly authorized in writing by a designated official of Lattimore Materials Company. Any unauthorized person or entity in possession of this information will be prosecuted to the fullest extent of the law.

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

RD

Lattimore Materials Company
P.O. Box 556 - McKinney, Texas 75070-0556
(972) 221-4646 - (972) 569-4646
www.lmctx.com

LMC

Date: 14-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:

Cement:	ASTM C-150, Type I
Flyash:	ASTM C-618, Class C
Coarse Agg.:	ASTM C 33, 1.5"- #4 Crushed Stone
Fine Agg.:	ASTM C-33, Concrete Sand
Admixtures:	ASTM C 494, Type A or D
	ASTM C-260

1 Cubic Yard By Weight - SSD

Use

FOR USE AS A 4-HOUR MIX FOR LOCATIONS REQUIRING QUICK OPENING TO TRAFFIC.

Mix No.		**2825**	(8 SK ,WR,AIR)
Strength @ 28 Days		8 sack	
		Air	
Cement		752	lbs
		0	lbs
Coarse Aggregate		1950	lbs
Fine Aggregate		941	lbs
Water		266	lbs
Admixture	Water Reducer	30	ozs
AEA		4.9	ozs
Total Weight		3929	lbs
Unit Weight		145.54	pcf
W/Cm Ratio		0.38	
Fly Ash Replacement		0%	
Maximum Temperature		95	° F
Slump		3-5	inches
Entrained Air		3-6%	

This mix design submittal and or price quote is proprietary and confidential and not to be shared nor transmitted in any form to any person or organization that is not expressly authorized in writing by a designated official of Lattimore Materials Company. Any unauthorized person or entity in possession of this information will be prosecuted to the fullest extent of the law.

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

RD

Lattimore Materials Company
P.O. Box 556 - McKinney, Texas 75070-0556
(972) 221-4646 - (972) 569-4646
www.lmctx.com

LMC

Field Test Data

Mix No. *1261*

Basis for Selection

ACI 318, Section 5.3.2.1 (5-1)

Contractor: Smith Concrete Company
Project: Crossraods Christian Church, Grand Prairie, Texas
Laboratory: Terra-Mar

Data Updated: 07/09/03
Design Strength f'_c: 3000 psi
Data Represents: 36 Tests
Avg. Slump: 5.01 **Avg. Air%** 4.26

Standard Deviation: 220 psi
Required Strength f'_{cr}: 3294 psi
Average Strength: 4300 psi

		Conc.			7 Day Data	28 Day Compressive Strength Data						28 Day	28 Day
#	Date	Slump	Temp	Air%	Cyl.1	7Avg.	Cyl.1	Cyl.2	SetAvg	Avg./3	Range	St.Dev.	Run.Avg.
1	04/08/03	3.50	57	3.20	3850	**3850**	4450	4560	**4510**		100		**4510**
2	04/08/03	4.50	58	4.00	3120	**3120**	4120	4040	**4080**		80	304	**4300**
3	04/08/03	4.25	59	4.10	3030	**3030**	3900	3940	**3920**	4170	40	305	**4170**
4	04/08/03	4.50	72	3.60	3460	**3460**	4430	4390	**4410**	4140	40	277	**4230**
5	04/09/03	3.75	55	4.20	3590	**3590**	4200	4100	**4150**	4160	100	242	**4210**
6	04/17/03	4.50	73	4.80	3430	**3430**	4470	4350	**4410**	4320	120	231	**4250**
7	04/17/03	5.00	74	5.10	3240	**3240**	4310	4190	**4250**	4270	120	211	**4250**
8	04/17/03	4.75	77	5.20	3210	**3210**	4280	4280	**4280**	4310	0	195	**4250**
9	04/17/03	4.25	72	4.60	3110	**3110**	4150	4210	**4180**	4240	60	184	**4240**
10	04/17/03	4.00	74	4.60	3120	**3120**	4130	4060	**4100**	4190	70	180	**4230**
11	04/28/03	4.75	77	3.20	3380	**3380**	4380	4230	**4310**	4200	150	172	**4240**
12	04/28/03	5.50	79	4.20	3140	**3140**	3790	3830	**3810**	4070	40	205	**4200**
13	04/28/03	4.50	73	3.90	3280	**3280**	4110	4240	**4180**	4100	130	197	**4200**
14	04/28/03	4.00	76	3.20	3550	**3550**	4260	4280	**4270**	4090	20	190	**4200**
15	04/28/03	5.25	74	3.10	3220	**3220**	4200	4190	**4200**	4220	10	183	**4200**
16	05/06/03	4.25	87	3.70	3080	**3080**	4620	4650	**4640**	4370	30	208	**4230**
17	05/06/03	5.00	89	3.20	3110	**3110**	4600	4740	**4670**	4500	140	227	**4260**
18	05/07/03	6.25	80	4.80	2970	**2970**	3990	3920	**3960**	4420	70	231	**4240**
19	05/07/03	6.25	81	5.00	3240	**3240**	4390	4250	**4320**	4320	140	226	**4240**
20	05/07/03	5.75	79	5.10	3270	**3270**	4630	4570	**4600**	**4290**	60	234	**4260**
21	05/07/03	5.50	81	5.00	3080	**3080**	4250	4410	**4330**	**4420**	160	228	**4270**
22	05/04/03	5.50	84	4.80	3170	**3170**	4080	4120	**4100**	**4340**	40	225	**4260**
23	05/09/03	5.00	82	5.00	3410	**3410**	4590	4860	**4730**	**4390**	270	241	**4280**
24	05/09/03	5.00	83	4.80	3090	**3090**	4170	4270	**4220**	**4350**	100	236	**4280**
25	05/09/03	5.00	81	4.80	3170	**3170**	4220	4290	**4260**	**4400**	70	231	**4280**
26	05/09/03	5.00	82	5.10	2990	**2990**	4440	4470	**4460**	**4420**	30	229	**4280**
27	05/09/03	5.00	82	4.80	3370	**3370**	4250	4200	**4230**	**4290**	50	225	**4280**
28	05/12/03	4.75	82	2.70	3300	**3300**	4250	4230	**4240**	**4310**	20	221	**4280**
29	05/16/03	5.00	85	1.80	3180	**3180**	4300	4410	**4360**	**4280**	110	218	**4280**
30	05/16/03	5.00	85	2.00	3210	**3210**	4280	4380	**4330**	**4310**	100	214	**4280**
31	05/16/03	5.00	85	3.50	3270	**3270**	4270	4280	**4280**	**4320**	10	211	**4280**
32	05/16/03	7.00	84	3.00	2920	**2920**	4220	4180	**4200**	**4270**	40	208	**4280**
33	05/16/03	5.00	84	4.00	2980	**2980**	4310	4320	**4320**	**4270**	10	204	**4280**
34	05/16/03	5.00	85	3.00	2880	**2880**	4220	4130	**4180**	**4230**	90	202	**4280**
35	05/20/03	5.00	82	4.40	4020	**4020**	4870	4740	**4810**	**4440**	130	218	**4290**
36	05/20/03	5.00	82	4.60	4010	**4010**	4550	4570	**4560**	**4520**	20	220	**4300**

LMC

Field Test Data

Mix No. *1701*

Basis for Selection

Contractor: Morrow Construction
Project: The Falls
Sunnyvale, Texas
Laboratory: Hooper Engineering

Data Updated: 07/09/03
Design Strength f'_c: 4000 psi
Data Represents: 26 Tests
Avg. Slump: 4.25 **Avg. Air%** 4.22

ACI 318, Section 5.3.2.1 (5-1)
Standard Deviation: 430 psi
Required Strength f'_{cr}: 4577 psi
Average Strength: 5120 psi

		Conc.			7 Day Data			28 Day Compressive Strength Data					28 Day	28 Day
#	Date	Slump	Temp	Air%	Cyl.1	Cyl.2	7Avg.	Cyl.1	Cyl.2	SetAvg	Avg./3	Range	St.Dev.	Run.Avg.
1	03/13/03	3.50	70	4.60	3510	3580	**3550**	4710	4450	**4580**		260		**4580**
2	03/13/03	5.00	74	4.00	4150	3980	**4070**	5680	5760	**5720**		80	806	**5150**
3	03/13/03	5.25	75	4.10	4020	4230	**4130**	5400	5730	**5570**	5290	330	619	**5290**
4	03/13/03	5.50	73	4.50	3390	3320	**3360**	4580	4480	**4530**	5270	100	633	**5100**
5	03/14/03	3.00	65	4.20	3700	4170	**3940**	4930	5150	**5040**	5050	220	549	**5090**
6	03/14/03	3.25	66	4.00	3900	4260	**4080**	4990	4830	**4910**	4830	160	496	**5060**
7	03/17/03	4.00	69	4.60	4100	4060	**4080**	5210	4820	**5020**	4990	390	453	**5050**
8	03/17/03	4.25	72	4.40	3540	3640	**3590**	4720	4700	**4710**	4880	20	437	**5010**
9	04/04/03	4.00	75	4.50	3940	3920	**3930**	4980	5010	**5000**	4910	30	408	**5010**
10	04/07/03	4.00	73	4.00	4680		**4680**	5940	5970	**5960**	5220	30	489	**5100**
11	04/07/03	3.75	69	4.20	4550		**4550**	5480	5440	**5460**	5470	40	476	**5140**
12	04/07/03	3.50	73	4.40	4470		**4470**	5770	5540	**5660**	5690	230	478	**5180**
13	04/08/03	4.00	66	3.80	4530	4460	**4500**	5760	5820	**5790**	5640	60	488	**5230**
14	04/08/03	4.50	65	4.20	4260	4200	**4230**	5590	5670	**5630**	5690	80	481	**5260**
15	04/09/03	4.25	69	4.00	3640	3740	**3690**	4770	5070	**4920**	5450	300	472	**5230**
16	04/09/03	4.00	69	4.00	4060	3970	**4020**	4840	4660	**4750**	5100	180	471	**5200**
17	04/10/03	5.25	68	4.00	4050	4070	**4060**	4800	4820	**4810**	4830	20	466	**5180**
18	04/10/03	4.25	67	4.50	3550	3660	**3610**	4840	4770	**4810**	4790	70	461	**5160**
19	04/11/03	5.00	68	4.40	4030	3920	**3980**	4970	5260	**5120**	4910	290	448	**5160**
20	04/11/03	5.50	72	4.20	3740	3670	**3710**	4360	4250	**4310**	**4750**	110	475	**5120**
21	04/14/03	5.50	72	4.20	4490	4450	**4470**	5180	5100	**5140**	**4860**	80	463	**5120**
22	04/14/03	4.50	73	4.40	3650	3850	**3750**	5140	5230	**5190**	**4880**	90	452	**5120**
23	04/15/03	4.50	73	4.00	4180	4080	**4130**	5200	5180	**5190**	**5170**	20	442	**5120**
24	04/15/03	3.75	74	4.40	4180	4080	**4130**	5190	5180	**5190**	**5180**	10	433	**5130**
25	04/16/03	4.50	74	4.90	3750	3520	**3640**	5000	4820	**4910**	**5120**	180	426	**5120**
26	04/17/03	2.00	80	3.30	4150	4110	**4130**	5430	5050	**5240**	**5110**	380	418	**5120**

LATTIMORE MATERIALS COMPANY

P.O. BOX 556
McKINNEY, TEXAS 75070-0556
(972) 569-4646 (972) 221-4646

CONTRACTOR: Tenson Construction
MIX NO.: 448 (2925)
PROJECT: U.S. Highway 75

LABORATORY: Tx DOT
DESIGN STRENGTH: 255 Flex
Class K Modified

	Date	4 Hrs	4.5 Hrs	5 Hrs	5.5 Hrs	6 Hrs	24 Hrs
1	14-Mar-00						540
2	14-Mar-00						445
3	14-Mar-00						440
4	14-Mar-00						520
5	21-Mar-00	185					
6	21-Mar-00	166					
7	21-Mar-00			260			
8	21-Mar-00			230			
9	21-Mar-00				270		
10	21-Mar-00				280		
11	21-Mar-00					290	
12	21-Mar-00					305	
13	28-Mar-00			261			
14	28-Mar-00			289			
15	05-Apr-00					356	
16	11-Apr-00					261	
17	11-Apr-00					253	
18	13-Apr-00			230			
19	13-Apr-00			240			
20	17-Apr-00			329			
21	17-Apr-00			344			
22	19-Apr-00	357					
23	19-Apr-00	313					
24	20-Apr-00	322					
25	20-Apr-00	349					
26	21-Apr-00	308					
27	21-Apr-00		256				
28	24-Apr-00			263			
29	24-Apr-00			278			
30	26-Apr-00		443				
31	26-Apr-00		363				
		286	354	274	275	293	486

Lattimore Materials Co.
1700 Redbud Blvd., Suite 200
McKinney, Texas 75070
Office: (972) 221-4646
Fax: (972) 221-9647

REPORT OF:	**Analysis of Coarse Aggregate**
PROJECT:	**Various Projects**
DATE:	**2/20/2003**
METHOD:	**ASTM C29, C33, C117, C127 & D75**
MATERIAL SOURCE:	**Bridgeport 1"- #4 Crushed Stone**

SIEVE SIZE	PERCENT PASSING	SPECIFICATIONS PERCENT PASSING
1 1/2"	100	100
1"	96.6	95 - 100
3/4"	76.5	---
1/2"	41.4	25 - 60
3/8"	16.3	---
#4	4.7	0 - 10
#8	1.7	0 - 5

DRY RODDED UNIT WEIGHT	=	**99.48 PCF**
SPECIFIC GRAVITY	=	**2.68**
MINUS 200%	=	**0.3%**
ABS	=	**0.50%**

STATE OF TEXAS
RICHARD S. SZECSY
87059
LICENSED
PROFESSIONAL ENGINEER

Richard S. Szecsy, PhD, PE
Vice President
New Product Development & Risk Management

Lattimore Materials Co.
1700 Redbud Blvd., Suite 200
McKinney, Texas 75070
Office: (972) 221-4646
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REPORT OF: Analysis of Fine Aggregate
PROJECT: Various Projects
DATE: 2/20/2003
METHOD: ASTM C29, C33, C117, C128 & D75
MATERIAL SOURCE: Denton Blend Spec Sand

SIEVE SIZE	PERCENT PASSING	SPECIFICATIONS PERCENT PASSING
3/8"	100	100
1/4"	99.6	---
#4	98.2	95 - 100
#8	84.3	80 - 100
#10	82.4	---
#16	74.3	50 - 85
#20	70.0	---
#30	58.2	25 - 60
#40	44.5	---
#50	22.1	10 - 30
#80	5.5	---
#100	2.7	2 - 10
#200	1.7	0 - 3

DRY RODDED UNIT WEIGHT	=	110.0 PCF
SPECIFIC GRAVITY	=	2.63
MINUS 200%	=	1.7%
ABSORPTION	=	0.8%

STATE OF TEXAS
RICHARD S. SZECSY
87059
LICENSED
PROFESSIONAL ENGINEER

Richard S. Szecsy, PhD, PE
Vice President
New Product Development & Risk Management

Sika® AEA-15

1/97

ISO 9000

Air Entraining Admixture

DESCRIPTION

Sika AEA-15 admixture is a liquid solution of concentrated organic materials. It has been formulated and manufactured specifically to provide stable and predictable air contents in concrete, with uniform air bubble spacing throughout the concrete matrix.

Sika AEA-15 meets the requirements of ASTM C-260 for air entraining admixtures and AASHTO M-154

APPLICATIONS

Sika AEA-15 can be used whenever air entrained concrete is desired. Ready-mix, precast and block producers can all achieve optimum entrained air contents, even where harsh mixes are used or fly-ash is added to the mix.

ADVANTAGES

Air entrainment is recognized as the most effective prevention against concrete scaling in exposed environments. Air entrained concrete delivers particular benefits in the form of increased concrete durability. This is important in colder climates where frost and freeze-thaw cycles can cause scaling and damage to the concrete surface.

Air entraining agents help to prevent scaling by creating millions of microscopic air voids, allowing water trapped in the concrete to expand when the concrete freezes, thus preventing cracks caused by natural expansion. Entrained air voids in the concrete will also increase durability in harsh environments where concrete is exposed to deicing salts, marine salts and sulfates.

Workability and placeability are also improved by the lubricating action of the microscopic bubbles in the concrete. Concrete will flow better, and bleeding and shrinkage will be reduced because less water is needed to obtain the desired workability

HOW TO USE

DOSAGE

Addition rates will vary depending on the air content required for a particular project. Typically air contents will be specified in the range of 4 to 8 percent by volume. Other factors that may affect the amount of air entrained into the concrete include, but are not limited to, cement content and type, sand gradation, temperature and water content. Sika recommends that trial mixes be tested whenever material or any other changes are made that may affect the amount of entrained air.

Dosage rates for Sika AEA-15 will typically fall between 1/4 and 1 fl. oz./100 lbs. (16 - 65 ml/100 kg) of cement to entrain between 4 and 6 percent air. Higher air contents may be obtained by increasing the dosage rate.

Combination with other admixtures, particularly water reducers and retarders, will tend to increase the amount of entrained air in the mix. Air contents should be checked with an air-meter after batching and dosage adjustments made at the concrete plant.

MIXING

Measure the required quantity per batch manually or with automatic dispenser equipment. Add Sika AEA-15 to mixing water or sand. Do not mix with dry cement. When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix.

PACKAGING

Sika AEA-15 is supplied in 55 gallon (208 liter) drums and bulk delivery.

STORAGE AND SHELF LIFE

Sika AEA-15 should be stored at above 35°F (2°C). If frozen, thaw and agitate thoroughly to return to its normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 80°F (10°C-27°C) is 1 year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID

Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes; contact a physician. Wash clothing before re-use.

CLEAN UP

Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations.

TYPICAL DATA FOR SIKA AEA-15	
ASTM CERTIFICATION	C-260 Air Entraining Admixtures
COLOR	Brown
SPECIFIC GRAVITY g/ml	1.02 ± 0.02
pH	> 8
CHLORIDES %	< 0.1

Plastocrete® 161

ISO 9000

Water Reducing Admixture (Type A)

DESCRIPTION
Plastocrete 161 is a polymer-type water-reducing admixture. Plastocrete 161 contains no chlorides.

Plastocrete 161 meets the requirements of ASTM C-494 Type A and AASHTO M194 Type A

APPLICATIONS
Plastocrete 161 is recommended for use in all applications where high quality concrete with superior workability and normal setting times is required.

HOW IT WORKS
Plastocrete 161 water reducing admixture provides an economical and highly effective means of reducing the amount of mixing water required to produce concrete of a certain slump by acting as a dispersant for the cement particles in the mix.

Through this dispersing action more of the surface area of the cement particles is available for early hydration. The more cement particles hydrated by contact with the mixing water, the greater the compressive strength of the concrete.

ADVANTAGES
Plastocrete 161 is formulated as a Type A water reducer to allow 7 - 10% water reduction and maximize the benefits of increased hydration in both the hardened and plastic states.

BENEFITS
- ▲ Reduced water content required to achieve desired slump, increases compressive and flexural strengths and allows the use of more economical mixes.
- ▲ Improved paste quality makes concrete easier to pump and finish.
- ▲ Consistent normal setting times throughout the recommended dosage.
- ▲ Lower water cement ratios provide decreased permeability and increased durability.

Combination with other Admixtures:
Plastocrete 161 works effectively as a single admixture or in combination with other admixtures in the Sika System. When air entrained concrete is specified, Sika recommends the use of Sika air entraining agents.

HOW TO USE

DOSAGE
Addition rates of 3 - 6 fl. oz./100 lbs. (195 - 390 ml/100 kg) of cement are recommended for general concrete applications where normal setting characteristics are desired.

MIXING
Plastocrete 161 is added at the concrete plant. Measure required quantity manually or by automated dispenser. Add into the sand at the weigh hopper or into the water line at the batch plant.

When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix. Do not mix with dry cement.

PACKAGING
Plastocrete 161 is supplied in 55 gallon (208 liter) drums and bulk delivery.

STORAGE AND SHELF-LIFE
Plastocrete 161 should be stored at above 35°F (2°C). If frozen, thaw and agitate thoroughly to return to normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 80°F (10°C - 27°C) is one year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID
Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes; contact a physician. Wash clothing before re-use.

CLEAN UP
Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations.

TYPICAL DATA FOR PLASTOCRETE 161	
ASTM CERTIFICATION	ASTM C-494 Type A
COLOR	Brown
SPECIFIC GRAVITY g/ml	1.17 ± 0.05
pH	>8
CHLORIDES %	<0.1

Plastiment

1/97

ISO 9000

Water Reducing and Retarding Admixture (Types B & D)

DESCRIPTION
Plastiment is a water-reducing and retarding admixture. Plastiment contains no calcium chloride or any other intentionally added chlorides.

Plastiment meets the requirements of ASTM C-494 Types B and D and AASHTO M194 Types B and D.

APPLICATIONS
Plastiment is recommended for use whenever high quality concrete with predictable and controlled set times is desired. Use in flatwork and horizontal or vertical slipform placements where a superior surface finish is required.

ADVANTAGES
Plastiment is highly effective in hot weather concreting to offset the accelerating effects of high ambient temperatures by controlling the heat of hydration. Concrete workability is enhanced and a superior surface finish is obtained.

BENEFITS
- In mass concrete pours Plastiment controls temperature rise and reduces the risk of thermal cracking.
- Initial set times are delayed, allowing time for proper placement and finishing without cold joints in hot weather conditions.
- Plastiment increases concrete density and delivers increased early and ultimate, compressive and flexural strengths.
- For flatwork applications Plastiment acts as a finishing aid, workability is improved, bleeding is controlled and a superior surface finish is obtained.
- Lower water cement ratios provide decreased permeability and increased durability.

Combination with other Admixtures:
Plastiment works effectively as a single admixture or in combination with other admixtures in the Sika System.

HOW TO USE

DOSAGE
Addition rates of 2 - 4 fl. oz./100 lbs (130-260 ml/100 kg) cement are recommended for general concrete applications. Where extended retardation is required dosage may be increased. Please contact your local Sika Representative for information and assistance.

MIXING
Add Plastiment at the concrete plant. Measure required quantity manually or by automated dispenser. Add into the sand at the weigh hopper or into the water line at the batch plant.

When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix. Do not mix with dry cement.

PACKAGING
Plastiment is supplied in 55 gallon (208 liter) drums and bulk delivery.

STORAGE AND SHELF-LIFE
Plastiment should be stored at above 30°F (-1°C). If frozen, thaw and agitate thoroughly to return to normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 90°F (10°C-27°C) is one year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID
Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes; contact a physician. Wash clothing before re-use.

CLEAN UP
Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations.

TYPICAL DATA FOR PLASTIMENT	
ASTM CERTIFICATION	ASTM C-494 Types B and D
COLOR	Yellow/Green
SPECIFIC GRAVITY g/ml	1.18 ± 0.5
pH	> 8
CHLORIDES %	< 0.1

LMC

Data: 14-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1"- #4 Crushed Stone

Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use

FOR USE IN MISC. STRUCTURES

Mix No.	1281	(5 SK, WR, AIR)
Strength @ 28 Days	3000	psi
	Air	
Cement	470	lbs
	0	lbs
Coarse Aggregate	1850	lbs
Fine Aggregate	1354	lbs
Water	250	lbs
Admixture Water Reducer	19	ozs
AEA	3.1	ozs
Total Weight	3924	lbs
Unit Weight	145.34	pcf
W/Cm Ratio	0.53	
Fly Ash Replacement	0%	
Maximum Temperature	95	° F
Slump	3-5	inches
Entrained Air	3-6%	

This mix design submittal and or price quote is proprietary and confidential and not to be shared nor transmitted in any form to any person or organization that is not expressly authorized in writing by a designated official of Lattimore Materials Company. Any unauthorized person or entity in possession of this information will be prosecuted to the fullest extent of the law.

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

RD

Lattimore Materials Company
P.O. Box 356 - McKinney, Texas 75070-0556
(972) 221-4646 - (972) 569-4646
www.lmcx.com

LMC

Date: 15-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1"- #4 Crushed Stone

Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use		Hand Paving	
Mix No.		1701	(6 SK,WR,AIR)
Strength @ 28 Days		4000	psi
		Air	
Cement		564	lbs
		0	lbs
Coarse Aggregate		1850	lbs
Fine Aggregate		1245	lbs
Water		262	lbs
Admixture	Water Reducer	23	ozs
AEA		3.7	ozs
Total Weight		3921	lbs
Unit Weight		145.21	pcf
W/Cm Ratio		0.46	
Fly Ash Replacement		0%	
Maximum Temperature		95	° F
Slump		3-5	inches
Entrained Air		3-6%	

FOR USE IN ALL PAVING ITEMS

This mix design submittal and or price quote is proprietary and confidential and not to be shared nor transmitted in any form to any person or organization that is not expressly authorized in writing by a designated official of Lattimore Materials Company. Any unauthorized person or entity in possession of this information will be prosecuted to the fullest extent of the law.

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

RD

Lattimore Materials Company
P.O. Box 556 - McKinney, Texas 75070-0556
(972) 221-4646 - (972) 569-4646
www.lmcco.com

LMC

Date: 14-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1.5"- #4 Crushed Stone
Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use

Mix No.		2925	(8 SK ,WR,AIR)
Strength @ 28 Days		8 sack	
		Air	
Cement		752	lbs
		0	lbs
Coarse Aggregate		1950	lbs
Fine Aggregate		941	lbs
Water		286	lbs
Admixture	Water Reducer	30	ozs
AEA		4.9	ozs
Total Weight		3929	lbs
Unit Weight		145.54	pcf
W/Cm Ratio		0.38	
Fly Ash Replacement		0%	
Maximum Temperature		95	° F
Slump		3-6	inches
Entrained Air		3-6%	

FOR USE AS A 4-HOUR MIX FOR LOCATIONS REQUIRING QUICK OPENING TO TRAFFIC.

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

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www.lmctx.com

LMC

Field Test Data

Mix No. *1261*

Basis for Selection

ACI 318, Section 5.3.2.1 (5-1)

Contractor: Smith Concrete Company
Project: Crossroads Christian Church
Grand Prairie, Texas
Laboratory: Terra-Mar

Data Updated: 07/09/03
Design Strength f'_c: 3000 psi
Data Represents: 36 Tests
Avg. Slump: 5.01 Avg. Air% 4.26

Standard Deviation: 220 psi
Required Strength f'_{cr}: 3294 psi
Average Strength: 4300 psi

		Conc.			7 Day Data		28 Day Compressive Strength Data					28 Day	28 Day
#	Date	Slump	Temp	Air%	Cyl.1	7Avg.	Cyl.1	Cyl.2	SetAvg	Avg./3	Range	St.Dev.	Run.Avg.
1	04/08/03	3.50	57	3.20	3850	**3850**	4460	4560	**4510**		100		**4510**
2	04/08/03	4.50	58	4.00	3120	**3120**	4120	4040	**4080**		80	304	**4300**
3	04/08/03	4.25	59	4.10	3030	**3030**	3900	3940	**3920**	4170	40	305	**4170**
4	04/08/03	4.50	72	3.60	3460	**3460**	4430	4390	**4410**	4140	40	277	**4230**
5	04/09/03	3.75	55	4.20	3590	**3590**	4200	4100	**4150**	4160	100	242	**4210**
6	04/17/03	4.50	73	4.80	3430	**3430**	4470	4350	**4410**	4320	120	231	**4250**
7	04/17/03	5.00	74	5.10	3240	**3240**	4310	4190	**4250**	4270	120	211	**4250**
8	04/17/03	4.75	77	5.20	3210	**3210**	4280	4280	**4280**	4310	0	195	**4250**
9	04/17/03	4.25	72	4.60	3110	**3110**	4150	4210	**4180**	4240	60	184	**4240**
10	04/17/03	4.00	74	4.60	3120	**3120**	4130	4060	**4100**	4190	70	180	**4230**
11	04/28/03	4.75	77	3.20	3380	**3380**	4380	4230	**4310**	4200	150	172	**4240**
12	04/28/03	5.50	79	4.20	3140	**3140**	3790	3830	**3810**	4070	40	205	**4200**
13	04/28/03	4.50	73	3.90	3280	**3280**	4110	4240	**4180**	4100	130	197	**4200**
14	04/28/03	4.00	76	3.20	3550	**3550**	4260	4280	**4270**	4090	20	190	**4200**
15	04/28/03	5.25	74	3.10	3220	**3220**	4200	4190	**4200**	4220	10	183	**4200**
16	05/06/03	4.25	87	3.70	3080	**3080**	4620	4650	**4640**	4370	30	208	**4230**
17	05/06/03	5.00	89	3.20	3110	**3110**	4600	4740	**4670**	4500	140	227	**4260**
18	05/07/03	6.25	80	4.80	2970	**2970**	3990	3920	**3960**	4420	70	231	**4240**
19	05/07/03	6.25	81	5.00	3240	**3240**	4390	4250	**4320**	4320	140	226	**4240**
20	05/07/03	5.75	79	5.10	3270	**3270**	4630	4570	**4600**	4290	60	234	**4260**
21	05/07/03	5.50	81	5.00	3080	**3080**	4250	4410	**4330**	4420	160	228	**4270**
22	05/04/03	5.50	84	4.80	3170	**3170**	4080	4120	**4100**	4340	40	225	**4260**
23	05/09/03	5.00	82	5.00	3410	**3410**	4590	4860	**4730**	4390	270	241	**4280**
24	05/09/03	5.00	83	4.80	3090	**3090**	4170	4270	**4220**	4350	100	236	**4280**
25	05/09/03	5.00	81	4.80	3170	**3170**	4220	4290	**4260**	4400	70	231	**4280**
26	05/09/03	5.00	82	5.10	2990	**2990**	4440	4470	**4460**	4420	30	229	**4280**
27	05/09/03	5.00	82	4.80	3370	**3370**	4250	4200	**4230**	4290	50	225	**4280**
28	05/12/03	4.75	82	2.70	3300	**3300**	4250	4230	**4240**	4310	20	221	**4280**
29	05/16/03	5.00	85	1.80	3180	**3180**	4300	4410	**4360**	4280	110	218	**4280**
30	05/16/03	5.00	85	2.00	3210	**3210**	4280	4380	**4330**	4310	100	214	**4280**
31	05/16/03	5.00	85	3.50	3270	**3270**	4270	4280	**4280**	4320	10	211	**4280**
32	05/16/03	7.00	84	3.00	2920	**2920**	4220	4180	**4200**	4270	40	208	**4280**
33	05/16/03	5.00	84	4.00	2980	**2980**	4310	4320	**4320**	4270	10	204	**4280**
34	05/16/03	5.00	85	3.00	2880	**2880**	4220	4130	**4180**	4230	90	202	**4280**
35	05/20/03	5.00	82	4.40	4020	**4020**	4870	4740	**4810**	4440	130	218	**4290**
36	05/20/03	5.00	82	4.60	4010	**4010**	4550	4570	**4560**	4520	20	220	**4300**

LMC

Field Test Data

Mix No. *1701*

Basis for Selection

Contractor: Morrow Construction
Project: The Falls
Sunnyvale, Texas
Laboratory: Hooper Engineering

Data Updated: 07/09/03
Design Strength f'_c: 4000 psi
Data Represents: 26 Tests
Avg. Slump: 4.25 Avg. Air% 4.22

ACI 318, Section 5.3.2.1 (5-1)
Standard Deviation: 430 psi
Required Strength f'_{cr}: 4577 psi
Average Strength: 5120 psi

#	Date	Conc. Slump	Temp	Air%	7 Day Data Cyl.1	Cyl.2	7Avg.	28 Day Compressive Strength Data Cyl.1	Cyl.2	SetAvg	Avg./3	Range	28 Day St.Dev.	28 Day Run.Avg.
1	03/13/03	3.50	70	4.60	3510	3580	**3550**	4710	4450	**4580**		260		**4580**
2	03/13/03	5.00	74	4.00	4150	3980	**4070**	5680	5760	**5720**		80	806	**5150**
3	03/13/03	5.25	75	4.10	4020	4230	**4130**	5400	5730	**5570**	5290	330	619	**5290**
4	03/13/03	5.50	73	4.50	3390	3320	**3360**	4580	4480	**4530**	5270	100	633	**5100**
5	03/14/03	3.00	65	4.20	3700	4170	**3940**	4930	5150	**5040**	5050	220	549	**5090**
6	03/14/03	3.25	66	4.00	3900	4260	**4080**	4990	4830	**4910**	4830	160	496	**5060**
7	03/17/03	4.00	69	4.60	4100	4060	**4080**	5210	4820	**5020**	4990	390	453	**5050**
8	03/17/03	4.25	72	4.40	3540	3640	**3590**	4720	4700	**4710**	4880	20	437	**5010**
9	04/04/03	4.00	75	4.50	3940	3920	**3930**	4980	5010	**5000**	4910	30	408	**5010**
10	04/07/03	4.00	73	4.00	4680		**4680**	5940	5970	**5960**	5220	30	489	**5100**
11	04/07/03	3.75	69	4.20	4550		**4550**	5480	5440	**5460**	5470	40	476	**5140**
12	04/07/03	3.50	73	4.40	4470		**4470**	5770	5540	**5660**	5690	230	478	**5180**
13	04/08/03	4.00	66	3.80	4530	4460	**4500**	5760	5820	**5790**	5640	60	488	**5230**
14	04/08/03	4.50	65	4.20	4260	4200	**4230**	5590	5670	**5630**	5690	80	481	**5260**
15	04/09/03	4.25	69	4.00	3640	3740	**3690**	4770	5070	**4920**	5450	300	472	**5230**
16	04/09/03	4.00	69	4.00	4060	3970	**4020**	4840	4660	**4750**	5100	180	471	**5200**
17	04/10/03	5.25	68	4.00	4050	4070	**4060**	4800	4820	**4810**	4830	20	466	**5180**
18	04/10/03	4.25	67	4.50	3550	3660	**3610**	4840	4770	**4810**	4790	70	461	**5160**
19	04/11/03	5.00	68	4.40	4030	3920	**3980**	4970	5260	**5120**	4910	290	448	**5160**
20	04/11/03	5.50	72	4.20	3740	3670	**3710**	4360	4250	**4310**	**4750**	110	475	**5120**
21	04/14/03	5.50	72	4.20	4490	4450	**4470**	5180	5100	**5140**	**4860**	80	463	**5120**
22	04/14/03	4.50	73	4.40	3650	3850	**3750**	5140	5230	**5190**	**4880**	90	452	**5120**
23	04/15/03	4.50	73	4.00	4180	4080	**4130**	5200	5180	**5190**	**5170**	20	442	**5120**
24	04/15/03	3.75	74	4.40	4180	4080	**4130**	5190	5180	**5190**	**5180**	10	433	**5130**
25	04/16/03	4.50	74	4.90	3750	3520	**3640**	5000	4820	**4910**	**5120**	180	426	**5120**
26	04/17/03	2.00	80	3.30	4150	4110	**4130**	5430	5050	**5240**	**5110**	380	418	**5120**

LATTIMORE MATERIALS COMPANY

P.O. BOX 556
McKINNEY, TEXAS 75070-0556
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CONTRACTOR: Tenson Construction
MIX NO.: 448 (2925)
PROJECT: U.S. Highway 75
LABORATORY: Tx DOT
DESIGN STRENGTH: 255 Flex
Class K Modified

	Date	4 Hrs	4.5 Hrs	5 Hrs	5.5 Hrs	6 Hrs	24 Hrs
1	14-Mar-00						540
2	14-Mar-00						445
3	14-Mar-00						440
4	14-Mar-00						520
5	21-Mar-00	185					
6	21-Mar-00	166					
7	21-Mar-00			260			
8	21-Mar-00			230			
9	21-Mar-00				270		
10	21-Mar-00				280		
11	21-Mar-00					290	
12	21-Mar-00					305	
13	28-Mar-00			261			
14	28-Mar-00			289			
15	05-Apr-00					356	
16	11-Apr-00					261	
17	11-Apr-00					253	
18	13-Apr-00			230			
19	13-Apr-00			240			
20	17-Apr-00			329			
21	17-Apr-00			344			
22	19-Apr-00	357					
23	19-Apr-00	313					
24	20-Apr-00	322					
25	20-Apr-00	349					
26	21-Apr-00	308					
27	21-Apr-00		256				
28	24-Apr-00			263			
29	24-Apr-00			278			
30	26-Apr-00		443				
31	26-Apr-00		363				
		286	354	274	275	293	486

Lattimore Materials Co.
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McKinney, Texas 75070
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Fax: (972) 221-9647

REPORT OF:	**Analysis of Coarse Aggregate**
PROJECT:	**Various Projects**
DATE:	**2/20/2003**
METHOD:	**ASTM C29, C33, C117, C127 & D75**
MATERIAL SOURCE:	**Bridgeport 1"- #4 Crushed Stone**

SIEVE SIZE	PERCENT PASSING	SPECIFICATIONS PERCENT PASSING
1 1/2"	100	100
1"	96.6	95 - 100
3/4"	76.5	---
1/2"	41.4	25 - 60
3/8"	16.3	---
#4	4.7	0 - 10
#8	1.7	0 - 5

DRY RODDED UNIT WEIGHT	=	**99.48 PCF**
SPECIFIC GRAVITY	=	**2.68**
MINUS 200%	=	**0.3%**
ABSORPTION	=	**0.50%**

STATE OF TEXAS
RICHARD S. SZECSY
87059
LICENSED
PROFESSIONAL ENGINEER

Richard S. Szecsy, PhD, PE
Vice President
New Product Development & Risk Management

Lattimore Materials Co.
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McKinney, Texas 75070
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REPORT OF:	**Analysis of Fine Aggregate**
PROJECT:	**Various Projects**
DATE:	**2/20/2003**
METHOD:	**ASTM C29, C33, C117, C128 & D75**
MATERIAL SOURCE:	**Denton Blend Spec Sand**

SIEVE SIZE	PERCENT PASSING	SPECIFICATIONS PERCENT PASSING
3/8"	100	100
1/4"	99.8	---
#4	98.2	95 - 100
#8	84.3	80 - 100
#10	82.4	---
#16	74.3	50 - 85
#20	70.0	---
#30	58.2	25 - 60
#40	44.5	---
#50	22.1	10 - 30
#80	5.5	---
#100	2.7	2 - 10
#200	1.7	0 - 3

DRY RODDED UNIT WEIGHT	=	**110.0 PCF**
SPECIFIC GRAVITY	=	**2.63**
MINUS 200%	=	**1.7%**
ABSORPTION	=	**0.8%**

Richard S. Szecsy, PhD, PE
Vice President
New Product Development & Risk Management

Sika® AEA-15

1/97

ISO 9000

Air Entraining Admixture

DESCRIPTION

Sika AEA-15 admixture is a liquid solution of concentrated organic materials. It has been formulated and manufactured specifically to provide stable and predictable air contents in concrete, with uniform air bubble spacing throughout the concrete matrix.

Sika AEA-15 meets the requirements of ASTM C-260 for air entraining admixtures and AASHTO M-154

APPLICATIONS

Sika AEA-15 can be used whenever air entrained concrete is desired. Ready-mix, precast and block producers can all achieve optimum entrained air contents, even where harsh mixes are used or fly-ash is added to the mix.

ADVANTAGES

Air entrainment is recognized as the most effective prevention against concrete scaling in exposed environments. Air entrained concrete delivers particular benefits in the form of increased concrete durability. This is important in colder climates where frost and freeze-thaw cycles can cause scaling and damage to the concrete surface

Air entraining agents help to prevent scaling by creating millions of microscopic air voids, allowing water trapped in the concrete to expand when the concrete freezes, thus preventing cracks caused by natural expansion. Entrained air voids in the concrete will also increase durability in harsh environments where concrete is exposed to deicing salts, marine salts and sulfates.

Workability and placeability are also improved by the lubricating action of the microscopic bubbles in the concrete. Concrete will flow better, and bleeding and shrinkage will be reduced because less water is needed to obtain the desired workability

HOW TO USE

DOSAGE

Addition rates will vary depending on the air content required for a particular project. Typically air contents will be specified in the range of 4 to 8 percent by volume. Other factors that may affect the amount of air entrained into the concrete include, but are not limited to, cement content and type, sand gradation, temperature and water content. Sika recommends that trial mixes be tested whenever material or any other changes are made that may affect the amount of entrained air.

Dosage rates for Sika AEA-15 will typically fall between 1/4 and 1 fl. oz./100 lbs. (16 - 65 ml/100 kg) of cement to entrain between 4 and 6 percent air. Higher air contents may be obtained by increasing the dosage rate.

Combination with other admixtures, particularly water reducers and retarders, will tend to increase the amount of entrained air in the mix. Air contents should be checked with an air-meter after batching and dosage adjustments made at the concrete plant.

MIXING

Measure the required quantity per batch manually or with automatic dispenser equipment. Add Sika AEA-15 to mixing water or sand. Do not mix with dry cement. When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix.

PACKAGING

Sika AEA-15 is supplied in 55 gallon (205 liter) drums and bulk delivery

STORAGE AND SHELF LIFE

Sika AEA-15 should be stored at above 35°F (2°C). If frozen, thaw and agitate thoroughly to return to its normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 80°F (10°C - 27°C) is 1 year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID

Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes, contact a physician. Wash clothing before re-use.

CLEAN UP

Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations

TYPICAL DATA FOR SIKA AEA-15

ASTM CERTIFICATION	C-260 Air Entraining Admixtures
COLOR	Brown
SPECIFIC GRAVITY g/ml	1.02 ± 0.02
pH	> 8
CHLORIDES %	< 0.1

Plastocrete® 161

ISO 9000

Water Reducing Admixture (Type A)

DESCRIPTION

Plastocrete 161 is a polymer-type water-reducing admixture. Plastocrete 161 contains no chlorides.

Plastocrete 161 meets the requirements of ASTM C-494 Type A and AASHTO M194 Type A

APPLICATIONS

Plastocrete 161 is recommended for use in all applications where high quality concrete with superior workability and normal setting times is required.

HOW IT WORKS

Plastocrete 161 water reducing admixture provides an economical and highly effective means of reducing the amount of mixing water required to produce concrete of a certain slump by acting as a dispersant for the cement particles in the mix.

Through this dispersing action more of the surface area of the cement particles is available for early hydration. The more cement particles hydrated by contact with the mixing water, the greater the compressive strength of the concrete.

ADVANTAGES

Plastocrete 161 is formulated as a Type A water reducer to allow 7 - 10% water reduction and maximize the benefits of increased hydration in both the hardened and plastic states.

BENEFITS

- ▲ Reduced water content required to achieve desired slump, increases compressive and flexural strengths and allows the use of more economical mixes.
- ▲ Improved paste quality makes concrete easier to pump and finish.
- ▲ Consistent normal setting times throughout the recommended dosage.
- ▲ Lower water cement ratios provide decreased permeability and increased durability.

Combination with other Admixtures:
Plastocrete 161 works effectively as a single admixture or in combination with other admixtures in the Sika System. When air entrained concrete is specified, Sika recommends the use of Sika air entraining agents.

HOW TO USE

DOSAGE

Addition rates of 3 - 6 fl. oz./100 lbs. (195 - 390 ml/100 kg) of cement are recommended for general concrete applications where normal setting characteristics are desired.

MIXING

Plastocrete 161 is added at the concrete plant. Measure required quantity manually or by automated dispenser. Add into the sand at the weigh hopper or in to the water line at the batch plant.

When used in combination with other admixtures care must be taken to dispense each admixture separately into the mix. Do not mix with dry cement.

PACKAGING

Plastocrete 161 is supplied in 55 gallon (208 liter) drums and bulk delivery

STORAGE AND SHELF-LIFE

Plastocrete 161 should be stored at above 35°F (2°C). If frozen, thaw and agitate thoroughly to return to normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 80°F (10°C - 27°C) is one year minimum.

CAUTION

Skin and eye irritant, avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID

Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes, contact a physician. Wash clothing before re-use.

CLEAN UP

Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations.

TYPICAL DATA FOR PLASTOCRETE 161	
ASTM CERTIFICATION	ASTM C-494 Type A
COLOR	Brown
SPECIFIC GRAVITY g/ml	1.17 ± 0.05
pH	>8
CHLORIDES %	<0.1

Plastiment

ISO 9000

Water Reducing and Retarding Admixture (Types B & D)

DESCRIPTION
Plastiment is a water-reducing and retarding admixture. Plastiment contains no calcium chloride or any other intentionally added chlorides.

Plastiment meets the requirements of ASTM C-494 Types B and D and AASHTO M194 Types B and D.

APPLICATIONS
Plastiment is recommended for use whenever high quality concrete with predictable and controlled set times is desired. Use in flatwork and horizontal or vertical slipform placements where a superior surface finish is required.

ADVANTAGES
Plastiment is highly effective in hot weather concreting to offset the accelerating effects of high ambient temperatures by controlling the heat of hydration. Concrete workability is enhanced and a superior surface finish is obtained.

BENEFITS
- ▲ In mass concrete pours Plastiment controls temperature rise and reduces the risk of thermal cracking.
- ▲ Initial set times are delayed, allowing time for proper placement and finishing without cold joints in hot weather conditions.
- ▲ Plastiment increases concrete density and delivers increased early and ultimate compressive and flexural strengths.
- ▲ For flatwork applications Plastiment acts as a finishing aid, workability is improved, bleeding is controlled and a superior surface finish is obtained.
- ▲ Lower water cement ratios provide decreased permeability and increased durability.

Combination with other Admixtures:
Plastiment works effectively as a single admixture or in combination with other admixtures in the Sika System.

HOW TO USE

DOSAGE
Addition rates of 2 - 4 fl. oz./100 lbs (130-260 ml/100 kg) cement are recommended for general concrete applications. Where extended retardation is required dosage may be increased. Please contact your local Sika Representative for information and assistance.

MIXING
Add Plastiment at the concrete plant. Measure required quantity manually or by automated dispenser. Add into the sand at the weigh hopper or into the water line at the batch plant.

When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix. Do not mix with dry cement.

PACKAGING
Plastiment is supplied in 55 gallon (208 liter) drums and bulk delivery.

STORAGE AND SHELF-LIFE
Plastiment should be stored at above 30°F (-1°C). If frozen, thaw and agitate thoroughly to return to normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 90°F (10°C - 27°C) is one year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID
Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes; contact a physician. Wash clothing before re-use.

CLEAN UP
Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations.

TYPICAL DATA FOR PLASTIMENT

ASTM CERTIFICATION	ASTM C-494 Types B and D
COLOR	Yellow/Green
SPECIFIC GRAVITY g/ml	1.18 ± 0.5
pH	> 8
CHLORIDES %	< 0.1

LMC

Date: 14-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1"- #4 Crushed Stone
Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use

FOR USE IN MISC. STRUCTURES

Mix No.		1281	(5 SK, WR,AIR)
Strength @ 28 Days		3000	psi
		Air	
Cement		470	lbs
		0	lbs
Coarse Aggregate		1850	lbs
Fine Aggregate		1354	lbs
Water		250	lbs
Admixture	Water Reducer	19	ozs
AEA		3.1	ozs
Total Weight		3924	lbs
Unit Weight		145.34	pcf
W/Cm Ratio		0.53	
Fly Ash Replacement		0%	
Maximum Temperature		95	° F
Slump		3-5	inches
Entrained Air		3-6%	

This mix design submittal and or price quote is proprietary and confidential and not to be shared nor transmitted in any form to any person or organization that is not expressly authorized in writing by a designated official of Lattimore Materials Company. Any unauthorized person or entity in possession of this information will be prosecuted to the fullest extent of the law.

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

RD

Lattimore Materials Company
P.O. Box 556 - McKinney, Texas 75070-0556
(972) 221-4646 - (972) 569-4646
www.lmcco.com

LMC

Date: 15-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1"- #4 Crushed Stone

Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use		Hand Paving	
Mix No.		1701	(6 SK,WR,AIR)
Strength @ 28 Days		4000	psi
		Air	
Cement		564	lbs
		0	lbs
Coarse Aggregate		1850	lbs
Fine Aggregate		1245	lbs
Water		262	lbs
Admixture	Water Reducer	23	ozs
AEA		3.7	ozs
Total Weight		3921	lbs
Unit Weight		145.21	pcf
W/Cm Ratio		0.46	
Fly Ash Replacement		0%	
Maximum Temperature		95	° F
Slump		3-5	inches
Entrained Air		3-6%	

FOR USE IN ALL PAVING ITEMS

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

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LMC

Date: 14-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1.5"- #4 Crushed Stone
Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use

FOR USE AS A 4-HOUR MIX FOR LOCATIONS REQUIRING QUICK OPENING TO TRAFFIC.

Mix No.		2825	(8 SK ,WR,AIR)
Strength @ 28 Days		8 sack	
		Air	
Cement		752	lbs
		0	lbs
Coarse Aggregate		1950	lbs
Fine Aggregate		941	lbs
Water		286	lbs
Admixture	Water Reducer	30	ozs
AEA		4.9	ozs
Total Weight		3929	lbs
Unit Weight		145.54	pcf
W/Cm Ratio		0.38	
Fly Ash Replacement		0%	
Maximum Temperature		95	° F
Slump		3-5	inches
Entrained Air		3-6%	

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 306 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

RD

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LMC

Field Test Data

Mix No. *1261*

Basis for Selection

ACI 318, Section 5.3.2.1 (5-1)

Contractor: Smith Concrete Company
Project: Crossroads Christian Church
Grand Prairie, Texas
Laboratory: Terra-Mar

Data Updated: 07/09/03
Design Strength f'_c: 3000 psi
Data Represents: 36 Tests
Avg. Slump: 5.01 Avg. Air% 4.26

Standard Deviation: 220 psi
Required Strength f'_{cr}: 3294 psi
Average Strength: 4300 psi

		Conc.			7 Day Data	28 Day Compressive Strength Data						28 Day	28 Day
#	Date	Slump	Temp	Air%	Cyl.1	7Avg.	Cyl.1	Cyl.2	SetAvg	Avg./3	Range	St.Dev.	Run.Avg.
1	04/08/03	3.50	57	3.20	3850	**3850**	4460	4560	**4510**		100		**4510**
2	04/08/03	4.50	58	4.00	3120	**3120**	4120	4040	**4080**		80	304	**4300**
3	04/08/03	4.25	59	4.10	3030	**3030**	3900	3940	**3920**	4170	40	305	**4170**
4	04/08/03	4.50	72	3.60	3460	**3460**	4430	4390	**4410**	4140	40	277	**4230**
5	04/09/03	3.75	55	4.20	3590	**3590**	4200	4100	**4150**	4160	100	242	**4210**
6	04/17/03	4.50	73	4.80	3430	**3430**	4470	4350	**4410**	4320	120	231	**4250**
7	04/17/03	5.00	74	5.10	3240	**3240**	4310	4190	**4250**	4270	120	211	**4250**
8	04/17/03	4.75	77	5.20	3210	**3210**	4280	4280	**4280**	4310	0	195	**4250**
9	04/17/03	4.25	72	4.60	3110	**3110**	4150	4210	**4180**	4240	60	184	**4240**
10	04/17/03	4.00	74	4.60	3120	**3120**	4130	4060	**4100**	4190	70	180	**4230**
11	04/28/03	4.75	77	3.20	3380	**3380**	4380	4230	**4310**	4200	150	172	**4240**
12	04/28/03	5.50	79	4.20	3140	**3140**	3790	3830	**3810**	4070	40	205	**4200**
13	04/28/03	4.50	73	3.90	3280	**3280**	4110	4240	**4180**	4100	130	197	**4200**
14	04/28/03	4.00	76	3.20	3550	**3550**	4260	4280	**4270**	4090	20	190	**4200**
15	04/28/03	5.25	74	3.10	3220	**3220**	4200	4190	**4200**	4220	10	183	**4200**
16	05/06/03	4.25	87	3.70	3080	**3080**	4620	4650	**4640**	4370	30	208	**4230**
17	05/06/03	5.00	89	3.20	3110	**3110**	4600	4740	**4670**	4500	140	227	**4260**
18	05/07/03	6.25	80	4.80	2970	**2970**	3990	3920	**3960**	4420	70	231	**4240**
19	05/07/03	6.25	81	5.00	3240	**3240**	4390	4250	**4320**	4320	140	226	**4240**
20	05/07/03	5.75	79	5.10	3270	**3270**	4630	4570	**4600**	**4290**	60	234	**4260**
21	05/07/03	5.50	81	5.00	3080	**3080**	4250	4410	**4330**	**4420**	160	228	**4270**
22	05/04/03	5.50	84	4.80	3170	**3170**	4080	4120	**4100**	**4340**	40	225	**4260**
23	05/09/03	5.00	82	5.00	3410	**3410**	4590	4860	**4730**	**4390**	270	241	**4280**
24	05/09/03	5.00	83	4.80	3090	**3090**	4170	4270	**4220**	**4350**	100	236	**4280**
25	05/09/03	5.00	81	4.80	3170	**3170**	4220	4290	**4260**	**4400**	70	231	**4280**
26	05/09/03	5.00	82	5.10	2990	**2990**	4440	4470	**4460**	**4420**	30	229	**4280**
27	05/09/03	5.00	82	4.80	3370	**3370**	4250	4200	**4230**	**4290**	50	225	**4280**
28	05/12/03	4.75	82	2.70	3300	**3300**	4250	4230	**4240**	**4310**	20	221	**4280**
29	05/16/03	5.00	85	1.80	3180	**3180**	4300	4410	**4360**	**4280**	110	218	**4280**
30	05/16/03	5.00	85	2.00	3210	**3210**	4280	4380	**4330**	**4310**	100	214	**4280**
31	05/16/03	5.00	85	3.50	3270	**3270**	4270	4280	**4280**	**4320**	10	211	**4280**
32	05/16/03	7.00	84	3.00	2920	**2920**	4220	4180	**4200**	**4270**	40	208	**4280**
33	05/16/03	5.00	84	4.00	2980	**2980**	4310	4320	**4320**	**4270**	10	204	**4280**
34	05/16/03	5.00	85	3.00	2880	**2880**	4220	4130	**4180**	**4230**	90	202	**4280**
35	05/20/03	5.00	82	4.40	4020	**4020**	4870	4740	**4810**	**4440**	130	218	**4290**
36	05/20/03	5.00	82	4.60	4010	**4010**	4550	4570	**4560**	**4520**	20	220	**4300**

LMC

Field Test Data

Mix No. *1701*

Basis for Selection

Contractor: Morrow Construction
Project: The Falls
Sunnyvale, Texas
Laboratory: Hooper Engineering

Data Updated: 07/09/03
Design Strength f'_c: 4000 psi
Data Represents: 26 Tests
Avg. Slump: 4.25 Avg. Air% 4.22

ACI 318, Section 5.3.2.1 (5-1)
Standard Deviation: 430 psi
Required Strength f'_{cr}: 4577 psi
Average Strength: 5120 psi

		Conc.			7 Day Data			28 Day Compressive Strength Data					28 Day	28 Day
#	Date	Slump	Temp	Air%	Cyl.1	Cyl.2	7Avg.	Cyl.1	Cyl.2	SetAvg	Avg./3	Range	St.Dev.	Run.Avg.
1	03/13/03	3.50	70	4.60	3510	3580	**3550**	4710	4450	**4580**		260		**4580**
2	03/13/03	5.00	74	4.00	4150	3980	**4070**	5680	5760	**5720**		80	806	**5150**
3	03/13/03	5.25	75	4.10	4020	4230	**4130**	5400	5730	**5570**	5290	330	619	**5290**
4	03/13/03	5.50	73	4.50	3390	3320	**3360**	4580	4480	**4530**	5270	100	633	**5100**
5	03/14/03	3.00	65	4.20	3700	4170	**3940**	4930	5150	**5040**	5050	220	549	**5090**
6	03/14/03	3.25	66	4.00	3900	4260	**4080**	4990	4830	**4910**	4830	160	496	**5060**
7	03/17/03	4.00	69	4.60	4100	4060	**4080**	5210	4820	**5020**	4990	390	453	**5050**
8	03/17/03	4.25	72	4.40	3540	3640	**3590**	4720	4700	**4710**	4880	20	437	**5010**
9	04/04/03	4.00	75	4.50	3940	3920	**3930**	4980	5010	**5000**	4910	30	408	**5010**
10	04/07/03	4.00	73	4.00	4680		**4680**	5940	5970	**5960**	5220	30	489	**5100**
11	04/07/03	3.75	69	4.20	4550		**4550**	5480	5440	**5460**	5470	40	476	**5140**
12	04/07/03	3.50	73	4.40	4470		**4470**	5770	5540	**5660**	5690	230	478	**5180**
13	04/08/03	4.00	66	3.80	4530	4460	**4500**	5760	5820	**5790**	5640	60	488	**5230**
14	04/08/03	4.50	65	4.20	4260	4200	**4230**	5590	5670	**5630**	5690	80	481	**5260**
15	04/09/03	4.25	69	4.00	3640	3740	**3690**	4770	5070	**4920**	5450	300	472	**5230**
16	04/09/03	4.00	69	4.00	4060	3970	**4020**	4840	4660	**4750**	5100	180	471	**5200**
17	04/10/03	5.25	68	4.00	4050	4070	**4060**	4800	4820	**4810**	4830	20	466	**5180**
18	04/10/03	4.25	67	4.50	3550	3660	**3610**	4840	4770	**4810**	4790	70	461	**5160**
19	04/11/03	5.00	68	4.40	4030	3920	**3980**	4970	5260	**5120**	4910	290	448	**5160**
20	04/11/03	5.50	72	4.20	3740	3670	**3710**	4360	4250	**4310**	**4750**	110	475	**5120**
21	04/14/03	5.50	72	4.20	4490	4450	**4470**	5180	5100	**5140**	**4860**	80	463	**5120**
22	04/14/03	4.50	73	4.40	3650	3850	**3750**	5140	5230	**5190**	**4880**	90	452	**5120**
23	04/15/03	4.50	73	4.00	4180	4080	**4130**	5200	5180	**5190**	**5170**	20	442	**5120**
24	04/15/03	3.75	74	4.40	4180	4080	**4130**	5190	5180	**5190**	**5180**	10	433	**5130**
25	04/16/03	4.50	74	4.90	3750	3520	**3640**	5000	4820	**4910**	**5120**	180	426	**5120**
26	04/17/03	2.00	80	3.30	4150	4110	**4130**	5430	5050	**5240**	**5110**	380	418	**5120**

LATTIMORE MATERIALS COMPANY

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McKINNEY, TEXAS 75070-0556
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CONTRACTOR: Tenson Construction
MIX NO.: 448 (2925)
PROJECT: U.S. Highway 75
LABORATORY: Tx DOT
DESIGN STRENGTH: 255 Flex
Class K Modified

	Date	4 Hrs	4.5 Hrs	5 Hrs	5.5 Hrs	6 Hrs	24 Hrs
1	14-Mar-00						540
2	14-Mar-00						445
3	14-Mar-00						440
4	14-Mar-00						520
5	21-Mar-00	185					
6	21-Mar-00	188					
7	21-Mar-00			260			
8	21-Mar-00			230			
9	21-Mar-00				270		
10	21-Mar-00				280		
11	21-Mar-00					290	
12	21-Mar-00					305	
13	28-Mar-00			261			
14	28-Mar-00			289			
15	05-Apr-00					356	
16	11-Apr-00					261	
17	11-Apr-00					253	
18	13-Apr-00			230			
19	13-Apr-00			240			
20	17-Apr-00			329			
21	17-Apr-00			344			
22	19-Apr-00	357					
23	19-Apr-00	313					
24	20-Apr-00	322					
25	20-Apr-00	349					
26	21-Apr-00	308					
27	21-Apr-00		256				
28	24-Apr-00			283			
29	24-Apr-00			278			
30	26-Apr-00		443				
31	26-Apr-00		363				
		286	354	274	275	293	486

Lattimore Materials Co.
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REPORT OF:	**Analysis of Coarse Aggregate**
PROJECT:	**Various Projects**
DATE:	**2/20/2003**
METHOD:	**ASTM C29, C33, C117, C127 & D75**
MATERIAL SOURCE:	**Bridgeport 1"- #4 Crushed Stone**

SIEVE SIZE	PERCENT PASSING	SPECIFICATIONS PERCENT PASSING
1 1/2"	100	100
1"	96.6	95 - 100
3/4"	76.5	---
1/2"	41.4	25 - 60
3/8"	16.3	---
#4	4.7	0 - 10
#8	1.7	0 - 5

DRY RODDED UNIT WEIGHT	=	**99.48 PCF**
SPECIFIC GRAVITY	=	**2.68**
MINUS 200%	=	**0.3%**
ABS	=	**0.50%**

STATE OF TEXAS
RICHARD S. STECSY
97059
LICENSED
PROFESSIONAL ENGINEER

Richard S. Stecsy, PhD, PE
Vice President
New Product Development & Risk Management

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REPORT OF:	**Analysis of Fine Aggregate**
PROJECT:	**Various Projects**
DATE:	**2/20/2003**
METHOD:	**ASTM C29, C33, C117, C128 & D75**
MATERIAL SOURCE:	**Denton Blend Spec Sand**

SIEVE SIZE	PERCENT PASSING	SPECIFICATIONS PERCENT PASSING
3/8"	100	100
1/4"	99.8	---
#4	98.2	95 - 100
#8	84.3	80 - 100
#10	82.4	---
#16	74.3	50 - 85
#20	70.0	---
#30	58.2	25 - 60
#40	44.5	---
#50	22.1	10 - 30
#80	5.5	---
#100	2.7	2 - 10
#200	1.7	0 - 3

DRY RODDED UNIT WEIGHT	=	**110.0 PCF**
SPECIFIC GRAVITY	=	**2.63**
MINUS 200%	=	**1.7%**
ABSORPTION	=	**0.8%**

STATE OF TEXAS
RICHARD S. SZECSY
87059
LICENSED
PROFESSIONAL ENGINEER

Richard S. Szecsy, PhD, PE
Vice President
New Product Development & Risk Management

Sika AEA-15

1/97

ISO 9000

Air Entraining Admixture

DESCRIPTION

Sika AEA-15 admixture is a liquid solution of concentrated organic materials. It has been formulated and manufactured specifically to provide stable and predictable air contents in concrete, with uniform air bubble spacing throughout the concrete matrix.

Sika AEA-15 meets the requirements of ASTM C-260 for air entraining admixtures and AASHTO M-154

APPLICATIONS

Sika AEA-15 can be used whenever air entrained concrete is desired. Ready-mix, precast and block producers can all achieve optimum entrained air contents, even where harsh mixes are used or fly-ash is added to the mix.

ADVANTAGES

Air entrainment is recognized as the most effective prevention against concrete scaling in exposed environments. Air entrained concrete delivers particular benefits in the form of increased concrete durability. This is important in colder climates where frost and freeze-thaw cycles can cause scaling and damage to the concrete surface.

Air entraining agents help to prevent scaling by creating millions of microscopic air voids, allowing water trapped in the concrete to expand when the concrete freezes, thus preventing cracks caused by natural expansion. Entrained air voids in the concrete will also increase durability in harsh environments where concrete is exposed to deicing salts, marine salts and sulfates.

Workability and placeability are also improved by the lubricating action of the microscopic bubbles in the concrete. Concrete will flow better, and bleeding and shrinkage will be reduced because less water is needed to obtain the desired workability

HOW TO USE

DOSAGE

Addition rates will vary depending on the air content required for a particular project. Typically air contents will be specified in the range of 4 to 8 percent by volume. Other factors that may affect the amount of air entrained into the concrete include, but are not limited to, cement content and type, sand gradation, temperature and water content. Sika recommends that trial mixes be tested whenever material or any other changes are made that may affect the amount of entrained air.

Dosage rates for Sika AEA-15 will typically fall between 1/4 and 1 fl. oz./100 lbs. (16 - 65 ml/100 kg) of cement to entrain between 4 and 6 percent air. Higher air contents may be obtained by increasing the dosage rate.

Combination with other admixtures, particularly water reducers and retarders, will tend to increase the amount of entrained air in the mix. Air contents should be checked with an air-meter after batching and dosage adjustments made at the concrete plant.

MIXING

Measure the required quantity per batch manually or with automatic dispenser equipment. Add Sika AEA-15 to mixing water or sand. Do not mix with dry cement. When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix.

PACKAGING

Sika AEA-15 is supplied in 55 gallon (208 liter) drums and bulk delivery

STORAGE AND SHELF LIFE

Sika AEA-15 should be stored at above 35°F (2°C). If frozen, thaw and agitate thoroughly to return to its normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 80°F (10°C - 27°C) is 1 year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID

Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes, contact a physician. Wash clothing before re-use.

CLEAN UP

Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations

TYPICAL DATA FOR SIKA AEA-15

ASTM CERTIFICATION	C-260 Air Entraining Admixtures
COLOR	Brown
SPECIFIC GRAVITY g/ml	1.02 ± 0.02
pH	> 8
CHLORIDES %	< 0.1

Plastocrete® 161

ISO 9000

Water Reducing Admixture (Type A)

DESCRIPTION

Plastocrete 161 is a polymer-type water-reducing admixture. Plastocrete 161 contains no chlorides.

Plastocrete 161 meets the requirements of ASTM C-494 Type A and AASHTO M194 Type A.

APPLICATIONS

Plastocrete 161 is recommended for use in all applications where high quality concrete with superior workability and normal setting times is required.

HOW IT WORKS

Plastocrete 161 water reducing admixture provides an economical and highly effective means of reducing the amount of mixing water required to produce concrete of a certain slump by acting as a dispersant for the cement particles in the mix.

Through this dispersing action more of the surface area of the cement particles is available for early hydration. The more cement particles hydrated by contact with the mixing water, the greater the compressive strength of the concrete.

ADVANTAGES

Plastocrete 161 is formulated as a Type A water reducer to allow 7 - 10% water reduction and maximize the benefits of increased hydration in both the hardened and plastic states.

BENEFITS

- Reduced water content required to achieve desired slump, increases compressive and flexural strengths and allows the use of more economical mixes.
- Improved paste quality makes concrete easier to pump and finish.
- Consistent normal setting times throughout the recommended dosage.
- Lower water cement ratios provide decreased permeability and increased durability.

Combination with other Admixtures:
Plastocrete 161 works effectively as a single admixture or in combination with other admixtures in the Sika System. When air entrained concrete is specified, Sika recommends the use of Sika air entraining agents.

HOW TO USE

DOSAGE

Addition rates of 3 - 6 fl. oz./100 lbs. (195 - 390 ml/100 kg) of cement are recommended for general concrete applications where normal setting characteristics are desired.

MIXING

Plastocrete 161 is added at the concrete plant. Measure required quantity manually or by automated dispenser. Add into the sand at the weigh hopper or into the water line at the batch plant.

When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix. Do not mix with dry cement.

PACKAGING

Plastocrete 161 is supplied in 55 gallon (208 liter) drums and bulk delivery.

STORAGE AND SHELF-LIFE

Plastocrete 161 should be stored at above 35°F (2°C). If frozen, thaw and agitate thoroughly to return to normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 90°F (10°C - 27°C) is one year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID

Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes, contact a physician. Wash clothing before re-use.

CLEAN UP

Contain and collect with absorbent material. Dispose of in accordance with local state and federal regulations.

TYPICAL DATA FOR PLASTOCRETE 161

ASTM CERTIFICATION	ASTM C-494 Type A
COLOR	Brown
SPECIFIC GRAVITY g/ml	1.17 ± 0.05
pH	>8
CHLORIDES %	<0.1

Plastiment

1/97

ISO 9000

Water Reducing and Retarding Admixture (Types B & D)

DESCRIPTION
Plastiment is a water-reducing and retarding admixture. Plastiment contains no calcium chloride or any other intentionally added chlorides.

Plastiment meets the requirements of ASTM C-494 Types B and D and AASHTO M194 Types B and D.

APPLICATIONS
Plastiment is recommended for use whenever high quality concrete with predictable and controlled set times is desired. Use in flatwork and horizontal or vertical slipform placements where a superior surface finish is required.

ADVANTAGES
Plastiment is highly effective in hot weather concreting to offset the accelerating effects of high ambient temperatures by controlling the heat of hydration. Concrete workability is enhanced and a superior surface finish is obtained.

BENEFITS
- In mass concrete pours Plastiment controls temperature rise and reduces the risk of thermal cracking.
- Initial set times are delayed, allowing time for proper placement and finishing without cold joints in hot weather conditions.
- Plastiment increases concrete density and delivers increased early and ultimate, compressive and flexural strengths.
- For flatwork applications Plastiment acts as a finishing aid, workability is improved, bleeding is controlled and a superior surface finish is obtained.
- Lower water cement ratios provide decreased permeability and increased durability.

Combination with other Admixtures:
Plastiment works effectively as a single admixture or in combination with other admixtures in the Sika System.

HOW TO USE

DOSAGE
Addition rates of 2 - 4 fl. oz./100 lbs (130-260 ml/100 kg) cement are recommended for general concrete applications. Where extended retardation is required dosage may be increased. Please contact your local Sika Representative for information and assistance.

MIXING
Add Plastiment at the concrete plant. Measure required quantity manually or by automated dispenser. Add into the sand at the weigh hopper or into the water line at the batch plant.

When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix. Do not mix with dry cement.

PACKAGING
Plastiment is supplied in 55 gallon (208 liter) drums and bulk delivery.

STORAGE AND SHELF-LIFE
Plastiment should be stored at above 30°F (-1°C). If frozen, thaw and agitate thoroughly to return to normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 90°F (10°C-27°C) is one year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID
Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes; contact a physician. Wash clothing before re-use.

CLEAN UP
Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations.

TYPICAL DATA FOR PLASTIMENT

ASTM CERTIFICATION	ASTM C-494 Types B and D
COLOR	Yellow/Green
SPECIFIC GRAVITY g/ml	1.18 ± 0.5
pH	> 8
CHLORIDES %	< 0.1

LMC

Date: 14-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1"- #4 Crushed Stone
Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use

FOR USE IN MISC. STRUCTURES

Mix No.	1261	(5 SK, WR, AIR)
Strength @ 28 Days	3000	psi
	Air	
Cement	470	lbs
	0	lbs
Coarse Aggregate	1850	lbs
Fine Aggregate	1354	lbs
Water	250	lbs
Admixture Water Reducer	19	ozs
AEA	3.1	ozs
Total Weight	3924	lbs
Unit Weight	145.34	pcf
W/Cm Ratio	0.53	
Fly Ash Replacement	0%	
Maximum Temperature	95	° F
Slump	3-5	inches
Entrained Air	3-6%	

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

RD

Lattimore Materials Company
P.O. Box 556 - McKinney, Texas 75070-0556
(972) 221-4646 - (972) 569-4646
www.lmccx.com

LMC

Date: 15-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1"- #4 Crushed Stone

Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use	Hand Paving		
Mix No.	1701	(6 SK,WR,AIR)	FOR USE IN ALL PAVING ITEMS
Strength @ 28 Days	4000	psi	
	Air		
Cement	564	lbs	
	0	lbs	
Coarse Aggregate	1850	lbs	
Fine Aggregate	1245	lbs	
Water	262	lbs	
Admixture Water Reducer	23	ozs	
AEA	3.7	ozs	
Total Weight	3921	lbs	
Unit Weight	145.21	pcf	
W/Cm Ratio	0.46		
Fly Ash Replacement	0%		
Maximum Temperature	95	°F	
Slump	3-5	inches	
Entrained Air	3-6%		

This mix design submittal and or price quote is proprietary and confidential and not to be shared nor transmitted in any form to any person or organization that is not expressly authorized in writing by a designated official of Lattimore Materials Company. Any unauthorized person or entity in possession of this information will be prosecuted to the fullest extent of the law.

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

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LMC

Date: 14-Jul-03

Client: Jim Bowman Construction

Project: Inwood & South Quorum Dr.
Addison, TX

Materials:
Cement: ASTM C-150, Type I
Flyash: ASTM C-618, Class C
Coarse Agg.: ASTM C 33, 1.5"- #4 Crushed Stone
Fine Agg.: ASTM C-33, Concrete Sand
Admixtures: ASTM C 494, Type A or D
ASTM C-260

1 Cubic Yard By Weight - SSD

Use

FOR USE AS A 4-HOUR MIX FOR LOCATIONS REQUIRING QUICK OPENING TO TRAFFIC.

Mix No.		2825	(8 SK ,WR,AIR)
Strength @ 28 Days		8 sack	
		Air	
Cement		752	lbs
		0	lbs
Coarse Aggregate		1950	lbs
Fine Aggregate		941	lbs
Water		286	lbs
Admixture	Water Reducer	30	ozs
AEA		4.9	ozs
Total Weight		3929	lbs
Unit Weight		145.54	pcf
W/Cm Ratio		0.38	
Fly Ash Replacement		0%	
Maximum Temperature		95	° F
Slump		3-6	inches
Entrained Air		3-6%	

Lattimore Ready Mix guarantees the above mix design will achieve the specified strength when tested and evaluated in accordance with ASTM C 172, C 31, C 39, and C 94 and when the recommended procedures for placement and curing in ACI 304, 305 / 306 are followed.

In accordance with ASTM C 94, Lattimore Materials Co. requests that copies of all strength tests be forwarded to our Quality Control Department.

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LMC

Field Test Data

Mix No. *1261*

Basis for Selection

Contractor: Smith Concrete Company
Project: Crossroads Christian Church, Grand Prairie, Texas
Laboratory: Terra-Mar

Data Updated: 07/09/03
Design Strength f'_c: 3000 psi
Data Represents: 36 Tests
Avg. Slump: 5.01 Avg. Air% 4.26

ACI 318, Section 5.3.2.1 (5-1)
Standard Deviation: 220 psi
Required Strength f'_{cr}: 3294 psi
Average Strength: 4300 psi

		Conc.			7 Day Data	28 Day Compressive Strength Data						28 Day	28 Day
#	Date	Slump	Temp	Air%	Cyl.1	7Avg.	Cyl.1	Cyl.2	SetAvg	Avg./3	Range	St.Dev.	Run.Avg.
1	04/08/03	3.50	57	3.20	3850	**3850**	4460	4560	**4510**		100		**4510**
2	04/08/03	4.50	58	4.00	3120	**3120**	4120	4040	**4080**		80	304	**4300**
3	04/08/03	4.25	59	4.10	3030	**3030**	3900	3940	**3920**	4170	40	305	**4170**
4	04/08/03	4.50	72	3.60	3460	**3460**	4430	4390	**4410**	4140	40	277	**4230**
5	04/09/03	3.75	55	4.20	3590	**3590**	4200	4100	**4150**	4160	100	242	**4210**
6	04/17/03	4.50	73	4.80	3430	**3430**	4470	4350	**4410**	4320	120	231	**4250**
7	04/17/03	5.00	74	5.10	3240	**3240**	4310	4190	**4250**	4270	120	211	**4250**
8	04/17/03	4.75	77	5.20	3210	**3210**	4280	4280	**4280**	4310	0	195	**4250**
9	04/17/03	4.25	72	4.60	3110	**3110**	4150	4210	**4180**	4240	60	184	**4240**
10	04/17/03	4.00	74	4.60	3120	**3120**	4130	4060	**4100**	4190	70	180	**4230**
11	04/28/03	4.75	77	3.20	3380	**3380**	4380	4230	**4310**	4200	150	172	**4240**
12	04/28/03	5.50	79	4.20	3140	**3140**	3790	3830	**3810**	4070	40	205	**4200**
13	04/28/03	4.50	73	3.90	3280	**3280**	4110	4240	**4180**	4100	130	197	**4200**
14	04/28/03	4.00	76	3.20	3550	**3550**	4260	4280	**4270**	4090	20	190	**4200**
15	04/28/03	5.25	74	3.10	3220	**3220**	4200	4190	**4200**	4220	10	183	**4200**
16	05/06/03	4.25	87	3.70	3080	**3080**	4620	4650	**4640**	4370	30	208	**4230**
17	05/06/03	5.00	89	3.20	3110	**3110**	4600	4740	**4670**	4500	140	227	**4260**
18	05/07/03	6.25	80	4.80	2970	**2970**	3990	3920	**3960**	4420	70	231	**4240**
19	05/07/03	6.25	81	5.00	3240	**3240**	4390	4250	**4320**	4320	140	226	**4240**
20	05/07/03	5.75	79	5.10	3270	**3270**	4630	4570	**4600**	4290	60	234	**4260**
21	05/07/03	5.50	81	5.00	3080	**3080**	4250	4410	**4330**	4420	160	228	**4270**
22	05/04/03	5.50	84	4.80	3170	**3170**	4080	4120	**4100**	4340	40	225	**4260**
23	05/09/03	5.00	82	5.00	3410	**3410**	4590	4860	**4730**	4390	270	241	**4280**
24	05/09/03	5.00	83	4.80	3090	**3090**	4170	4270	**4220**	4350	100	236	**4280**
25	05/09/03	5.00	81	4.80	3170	**3170**	4220	4290	**4260**	4400	70	231	**4280**
26	05/09/03	5.00	82	5.10	2990	**2990**	4440	4470	**4460**	4420	30	229	**4280**
27	05/09/03	5.00	82	4.80	3370	**3370**	4250	4200	**4230**	4290	50	225	**4280**
28	05/12/03	4.75	82	2.70	3300	**3300**	4250	4230	**4240**	4310	20	221	**4280**
29	05/16/03	5.00	85	1.80	3180	**3180**	4300	4410	**4360**	4280	110	218	**4280**
30	05/16/03	5.00	85	2.00	3210	**3210**	4280	4380	**4330**	4310	100	214	**4280**
31	05/16/03	5.00	85	3.50	3270	**3270**	4270	4280	**4280**	4320	10	211	**4280**
32	05/16/03	7.00	84	3.00	2920	**2920**	4220	4180	**4200**	4270	40	208	**4280**
33	05/16/03	5.00	84	4.00	2980	**2980**	4310	4320	**4320**	4270	10	204	**4280**
34	05/16/03	5.00	85	3.00	2880	**2880**	4220	4130	**4180**	4230	90	202	**4280**
35	05/20/03	5.00	82	4.40	4020	**4020**	4870	4740	**4810**	4440	130	218	**4290**
36	05/20/03	5.00	82	4.60	4010	**4010**	4550	4570	**4560**	4520	20	220	**4300**

LMC

Field Test Data

Mix No. *1701*

Basis for Selection

Contractor: Morrow Construction
Project: The Falls
Sunnyvale, Texas
Laboratory: Hooper Engineering

Data Updated: 07/09/03
Design Strength f'_c: 4000 psi
Data Represents: 26 Tests
Avg. Slump: 4.25 Avg. Air% 4.22

ACI 318, Section 5.3.2.1 (5-1)
Standard Deviation: 430 psi
Required Strength f'_{cr}: 4577 psi
Average Strength: 5120 psi

		Conc.			7 Day Data			28 Day Compressive Strength Data					28 Day	28 Day
#	Date	Slump	Temp	Air%	Cyl.1	Cyl.2	7Avg.	Cyl.1	Cyl.2	SetAvg	Avg./3	Range	St.Dev.	Run.Avg.
1	03/13/03	3.50	70	4.60	3510	3580	3550	4710	4450	4580		260		4580
2	03/13/03	5.00	74	4.00	4150	3980	4070	5680	5760	5720		80	806	5150
3	03/13/03	5.25	75	4.10	4020	4230	4130	5400	5730	5570	5290	330	619	5290
4	03/13/03	5.50	73	4.50	3390	3320	3360	4580	4480	4530	5270	100	633	5100
5	03/14/03	3.00	65	4.20	3700	4170	3940	4930	5150	5040	5050	220	549	5090
6	03/14/03	3.25	66	4.00	3900	4260	4080	4990	4830	4910	4830	160	496	5060
7	03/17/03	4.00	69	4.60	4100	4060	4080	5210	4820	5020	4990	390	453	5050
8	03/17/03	4.25	72	4.40	3540	3640	3590	4720	4700	4710	4880	20	437	5010
9	04/04/03	4.00	75	4.50	3940	3920	3930	4980	5010	5000	4910	30	408	5010
10	04/07/03	4.00	73	4.00	4680		4680	5940	5970	5960	5220	30	489	5100
11	04/07/03	3.75	69	4.20	4550		4550	5480	5440	5460	5470	40	476	5140
12	04/07/03	3.50	73	4.40	4470		4470	5770	5540	5660	5690	230	478	5180
13	04/08/03	4.00	66	3.80	4530	4460	4500	5760	5820	5790	5640	60	488	5230
14	04/08/03	4.50	65	4.20	4260	4200	4230	5590	5670	5630	5690	80	481	5260
15	04/09/03	4.25	69	4.00	3640	3740	3690	4770	5070	4920	5450	300	472	5230
16	04/09/03	4.00	69	4.00	4060	3970	4020	4840	4660	4750	5100	180	471	5200
17	04/10/03	5.25	68	4.00	4050	4070	4060	4800	4820	4810	4830	20	466	5180
18	04/10/03	4.25	67	4.50	3550	3660	3610	4840	4770	4810	4790	70	461	5160
19	04/11/03	5.00	68	4.40	4030	3920	3980	4970	5260	5120	4910	290	448	5160
20	04/11/03	5.50	72	4.20	3740	3670	3710	4360	4250	4310	4750	110	475	5120
21	04/14/03	5.50	72	4.20	4490	4450	4470	5180	5100	5140	4860	80	463	5120
22	04/14/03	4.50	73	4.40	3650	3850	3750	5140	5230	5190	4880	90	452	5120
23	04/15/03	4.50	73	4.00	4180	4080	4130	5200	5180	5190	5170	20	442	5120
24	04/15/03	3.75	74	4.40	4180	4080	4130	5190	5180	5190	5180	10	433	5130
25	04/16/03	4.50	74	4.90	3750	3520	3640	5000	4820	4910	5120	180	426	5120
26	04/17/03	2.00	80	3.30	4150	4110	4130	5430	5050	5240	5110	380	418	5120

LATTIMORE MATERIALS COMPANY

P.O. BOX 556
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CONTRACTOR: Tenson Construction
MIX NO.: 448 (2925)
PROJECT: U.S. Highway 75

LABORATORY: Tx DOT
DESIGN STRENGTH: 255 Flex
Class K Modified

	Date	4 Hrs	4.5 Hrs	5 Hrs	5.5 Hrs	6 Hrs	24 Hrs
1	14-Mar-00						540
2	14-Mar-00						445
3	14-Mar-00						440
4	14-Mar-00						520
5	21-Mar-00	185					
6	21-Mar-00	188					
7	21-Mar-00			260			
8	21-Mar-00			230			
9	21-Mar-00				270		
10	21-Mar-00				280		
11	21-Mar-00					290	
12	21-Mar-00					305	
13	28-Mar-00			261			
14	28-Mar-00			289			
15	05-Apr-00					356	
16	11-Apr-00					261	
17	11-Apr-00					253	
18	13-Apr-00			230			
19	13-Apr-00			240			
20	17-Apr-00			329			
21	17-Apr-00			344			
22	19-Apr-00	357					
23	19-Apr-00	313					
24	20-Apr-00	322					
25	20-Apr-00	349					
26	21-Apr-00	308					
27	21-Apr-00		256				
28	24-Apr-00			263			
29	24-Apr-00			278			
30	26-Apr-00		443				
31	26-Apr-00		363				
		286	354	274	275	293	486

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REPORT OF:	**Analysis of Coarse Aggregate**
PROJECT:	**Various Projects**
DATE:	**2/20/2003**
METHOD:	**ASTM C29, C33, C117, C127 & D75**
MATERIAL SOURCE:	**Bridgeport 1"- #4 Crushed Stone**

SIEVE SIZE	PERCENT PASSING	SPECIFICATIONS PERCENT PASSING
1 1/2"	100	100
1"	96.6	95 - 100
3/4"	76.5	---
1/2"	41.4	25 - 60
3/8"	16.3	---
#4	4.7	0 - 10
#8	1.7	0 - 5

DRY RODDED UNIT WEIGHT	=	**99.48 PCF**
SPECIFIC GRAVITY	=	**2.68**
MINUS 200%	=	**0.3%**
ABSO	=	**0.50%**

STATE OF TEXAS
RICHARD S. SZECSY
87059
LICENSED
PROFESSIONAL ENGINEER

Richard S. Szecsy, PhD, PE
Vice President
New Product Development & Risk Management

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REPORT OF:	**Analysis of Fine Aggregate**
PROJECT:	**Various Projects**
DATE:	**2/20/2003**
METHOD:	**ASTM C29, C33, C117, C128 & D75**
MATERIAL SOURCE:	**Denton Blend Spec Sand**

SIEVE SIZE	PERCENT PASSING	SPECIFICATIONS PERCENT PASSING
3/8"	100	100
1/4"	99.8	---
#4	98.2	95 - 100
#8	84.3	80 - 100
#10	82.4	---
#16	74.3	50 - 85
#20	70.0	---
#30	58.2	25 - 60
#40	44.5	---
#50	22.1	10 - 30
#80	5.5	---
#100	2.7	2 - 10
#200	1.7	0 - 3

DRY RODDED UNIT WEIGHT	=	**110.0 PCF**
SPECIFIC GRAVITY	=	**2.63**
MINUS 200%	=	**1.7%**
ABSORPTION	=	**0.8%**

STATE OF TEXAS
RICHARD S. SZECSY
87059
LICENSED
PROFESSIONAL ENGINEER

Richard S. Szecsy, PhD, PE
Vice President
New Product Development & Risk Management

Sika® AEA-15

Air Entraining Admixture

DESCRIPTION

Sika AEA-15 admixture is a liquid solution of concentrated organic materials. It has been formulated and manufactured specifically to provide stable and predictable air contents in concrete, with uniform air bubble spacing throughout the concrete matrix.

Sika AEA-15 meets the requirements of ASTM C-260 for air entraining admixtures and AASHTO M-154

APPLICATIONS

Sika AEA-15 can be used whenever air entrained concrete is desired. Ready-mix, precast and block producers can all achieve optimum entrained air contents, even where harsh mixes are used or fly-ash is added to the mix.

ADVANTAGES

Air entrainment is recognized as the most effective prevention against concrete scaling in exposed environments. Air entrained concrete delivers particular benefits in the form of increased concrete durability. This is important in colder climates where frost and freeze-thaw cycles can cause scaling and damage to the concrete surface.

Air entraining agents help to prevent scaling by creating millions of microscopic air voids, allowing water trapped in the concrete to expand when the concrete freezes, thus preventing cracks caused by natural expansion. Entrained air voids in the concrete will also increase durability in harsh environments where concrete is exposed to deicing salts, marine salts and sulfates.

Workability and placeability are also improved by the lubricating action of the microscopic bubbles in the concrete. Concrete will flow better, and bleeding and shrinkage will be reduced because less water is needed to obtain the desired workability

HOW TO USE

DOSAGE

Addition rates will vary depending on the air content required for a particular project. Typically air contents will be specified in the range of 4 to 8 percent by volume. Other factors that may affect the amount of air entrained into the concrete include, but are not limited to, cement content and type, sand gradation, temperature and water content. Sika recommends that trial mixes be tested whenever material or any other changes are made that may affect the amount of entrained air.

Dosage rates for Sika AEA-15 will typically fall between 1/4 and 1 fl. oz. /100 lbs. (16 - 65 ml/100 kg) of cement to entrain between 4 and 6 percent air. Higher air contents may be obtained by increasing the dosage rate.

Combination with other admixtures, particularly water reducers and retarders, will tend to increase the amount of entrained air in the mix. Air contents should be checked with an air-meter after batching and dosage adjustments made at the concrete plant.

MIXING

Measure the required quantity per batch manually or with automatic dispenser equipment. Add Sika AEA-15 to mixing water or sand. Do not mix with dry cement. When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix.

PACKAGING

Sika AEA-15 is supplied in 55 gallon (208 liter) drums and bulk delivery

STORAGE AND SHELF LIFE

Sika AEA-15 should be stored at above 35°F (2°C). If frozen, thaw and agitate thoroughly to return to its normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 80°F (10°C-27°C) is 1 year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID

Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes; contact a physician. Wash clothing before re-use.

CLEAN UP

Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations

TYPICAL DATA FOR SIKA AEA-15	
ASTM CERTIFICATION	C-260 Air Entraining Admixtures
COLOR	Brown
SPECIFIC GRAVITY g/ml	1.02 ± 0.02
pH	> 8
CHLORIDES %	< 0.1

Plastocrete® 161

ISO 9000

Water Reducing Admixture (Type A)

DESCRIPTION

Plastocrete 161 is a polymer-type water-reducing admixture. Plastocrete 161 contains no chlorides.

Plastocrete 161 meets the requirements of ASTM C-494 Type A and AASHTO M194 Type A

APPLICATIONS

Plastocrete 161 is recommended for use in all applications where high quality concrete with superior workability and normal setting times is required.

HOW IT WORKS

Plastocrete 161 water reducing admixture provides an economical and highly effective means of reducing the amount of mixing water required to produce concrete of a certain slump by acting as a dispersant for the cement particles in the mix.

Through this dispersing action more of the surface area of the cement particles is available for early hydration. The more cement particles hydrated by contact with the mixing water, the greater the compressive strength of the concrete.

ADVANTAGES

Plastocrete 161 is formulated as a Type A water reducer to allow 7 - 10% water reduction and maximize the benefits of increased hydration in both the hardened and plastic states.

BENEFITS

- Reduced water content required to achieve desired slump, increases compressive and flexural strengths and allows the use of more economical mixes.
- Improved paste quality makes concrete easier to pump and finish.
- Consistent normal setting times throughout the recommended dosage.
- Lower water cement ratios provide decreased permeability and increased durability.

Combination with other Admixtures:
Plastocrete 161 works effectively as a single admixture or in combination with other admixtures in the Sika System. When air entrained concrete is specified, Sika recommends the use of Sika air entraining agents.

HOW TO USE

DOSAGE

Addition rates of 3 - 6 fl. oz./100 lbs. (195 - 390 ml/100 kg) of cement are recommended for general concrete applications where normal setting characteristics are desired.

MIXING

Plastocrete 161 is added at the concrete plant. Measure required quantity manually or by automated dispenser. Add into the sand at the weigh hopper or into the water line at the batch plant.

When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix. Do not mix with dry cement.

PACKAGING

Plastocrete 161 is supplied in 55 gallon (208 liter) drums and bulk delivery.

STORAGE AND SHELF-LIFE

Plastocrete 161 should be stored at above 35°F (2°C). If frozen, thaw and agitate thoroughly to return to normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 80°F (10°C - 27°C) is one year minimum.

CAUTION

Skin and eye irritant, avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

FIRST AID

Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes, contact a physician. Wash clothing before re-use.

CLEAN UP

Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations.

TYPICAL DATA FOR PLASTOCRETE 161

ASTM CERTIFICATION	ASTM C-494 Type A
COLOR	Brown
SPECIFIC GRAVITY g/ml	1.17 ± 0.05
pH	>8
CHLORIDES %	<0.1

Plastiment

1/97

ISO 9000

Water Reducing and Retarding Admixture (Types B & D)

DESCRIPTION

Plastiment is a water-reducing and retarding admixture. Plastiment contains no calcium chloride or any other intentionally added chlorides.

Plastiment meets the requirements of ASTM C-494 Types B and D and AASHTO M194 Types B and D.

APPLICATIONS

Plastiment is recommended for use whenever high quality concrete with predictable and controlled set times is desired. Use in flatwork and horizontal or vertical slipform placements where a superior surface finish is required.

ADVANTAGES

Plastiment is highly effective in hot weather concreting to offset the accelerating effects of high ambient temperatures by controlling the heat of hydration. Concrete workability is enhanced and a superior surface finish is obtained.

BENEFITS

- In mass concrete pours Plastiment controls temperature rise and reduces the risk of thermal cracking.
- Initial set times are delayed, allowing time for proper placement and finishing without cold joints in hot weather conditions.
- Plastiment increases concrete density and delivers increased early and ultimate, compressive and flexural strengths.
- For flatwork applications Plastiment acts as a finishing aid, workability is improved, bleeding is controlled and a superior surface finish is obtained.
- Lower water cement ratios provide decreased permeability and increased durability.

Combination with other Admixtures:
Plastiment works effectively as a single admixture or in combination with other admixtures in the Sika System.

HOW TO USE

DOSAGE

Addition rates of 2 - 4 fl. oz./100 lbs (130-260 ml/100 kg) cement are recommended for general concrete applications. Where extended retardation is required dosage may be increased. Please contact your local Sika Representative for information and assistance.

MIXING

Add Plastiment at the concrete plant. Measure required quantity manually or by automated dispenser. Add into the sand at the weigh hopper or into the water line at the batch plant.

When used in combination with other admixtures, care must be taken to dispense each admixture separately into the mix. Do not mix with dry cement.

PACKAGING

Plastiment is supplied in 55 gallon (208 liter) drums and bulk delivery.

STORAGE AND SHELF-LIFE

Plastiment should be stored at above 30°F (-1°C). If frozen, thaw and agitate thoroughly to return to normal state before use.

Shelf life when stored in dry warehouse conditions between 50°F and 90°F (10°C-27°C) is one year minimum.

CAUTION

Skin and eye irritant; avoid contact. The use of NIOSH/MSHA approved respirator, safety goggles and rubber gloves is recommended. Avoid breathing product. Use with adequate ventilation. Remove contaminated clothing.

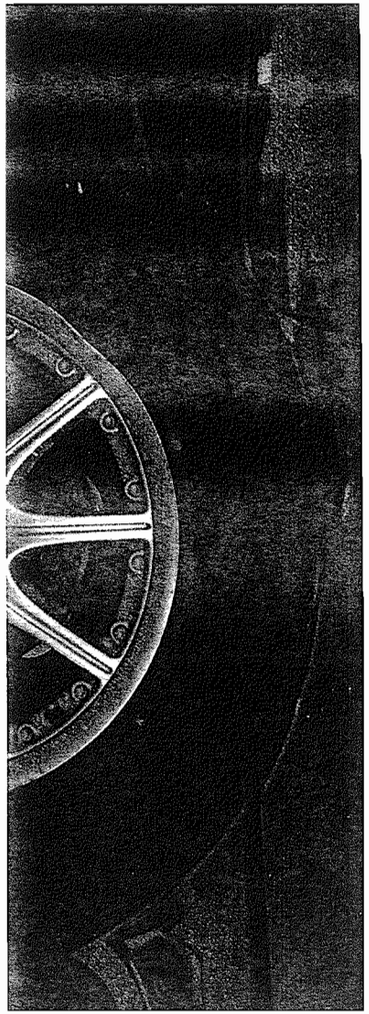
FIRST AID

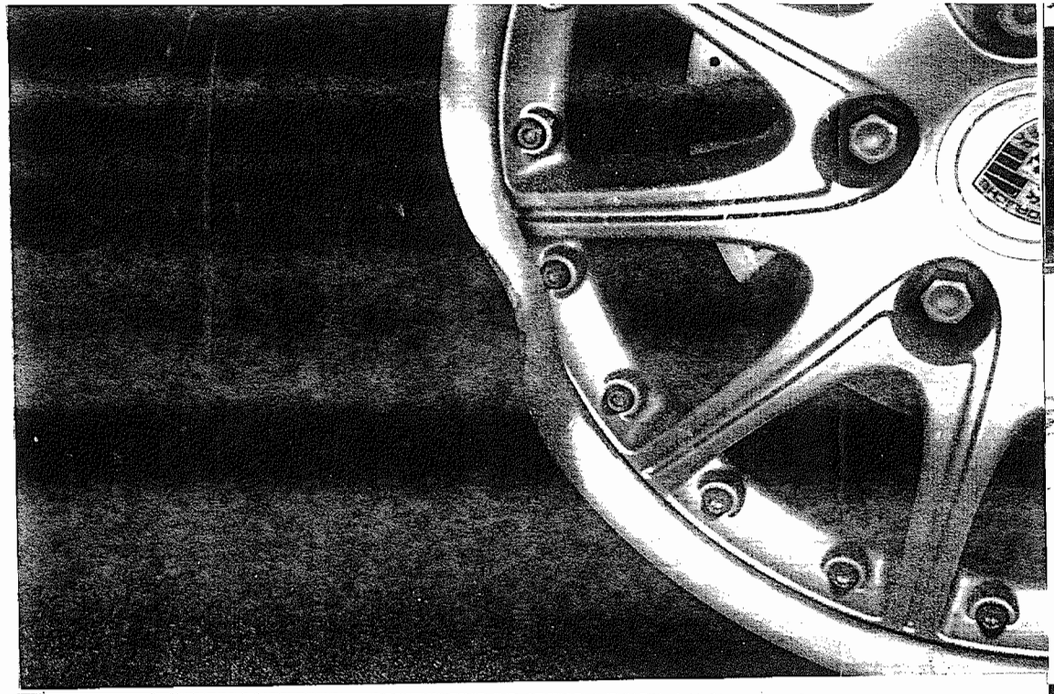
Wash skin with soap and water. In case of eye contact, flush with water for 15 minutes; contact a physician. Wash clothing before re-use.

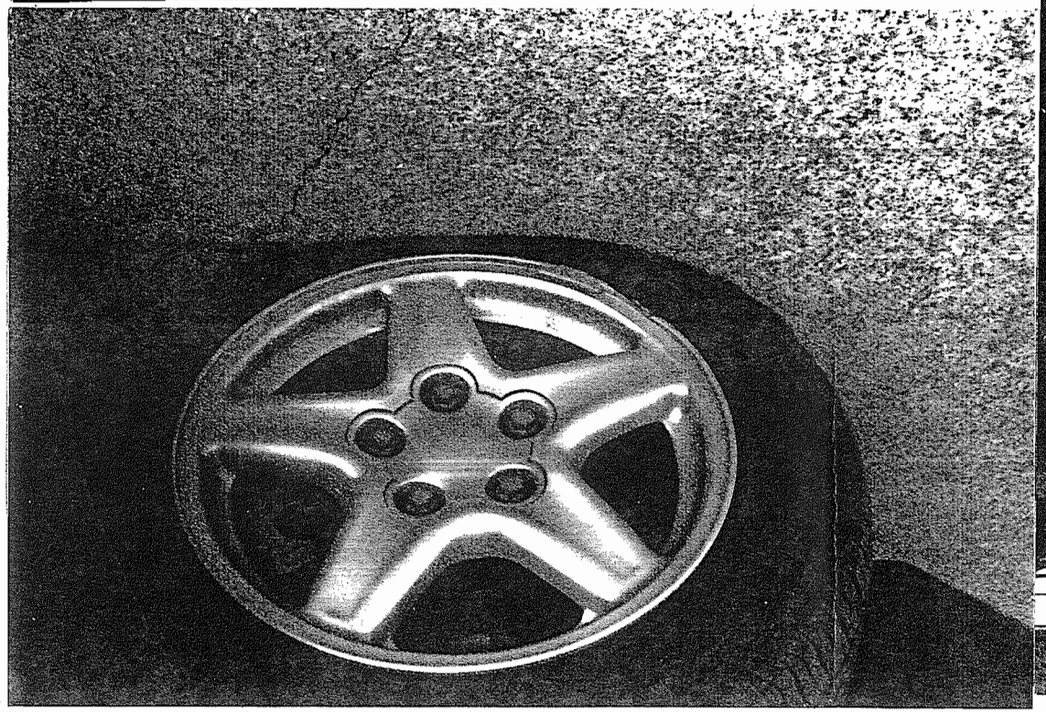
CLEAN UP

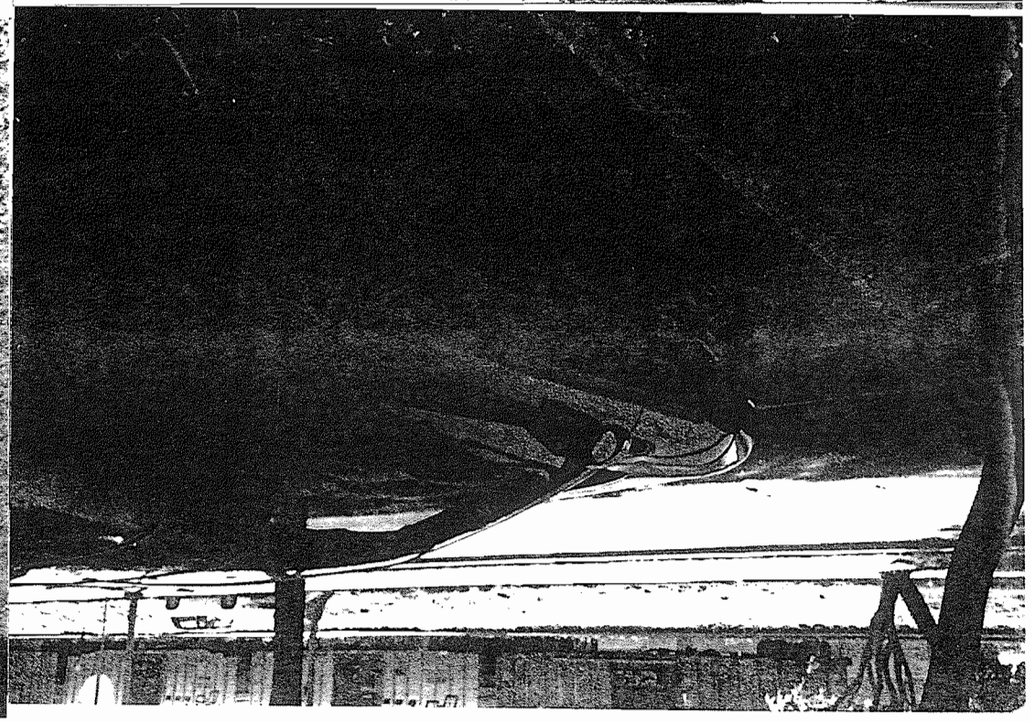
Contain and collect with absorbent material. Dispose of in accordance with local, state and federal regulations.

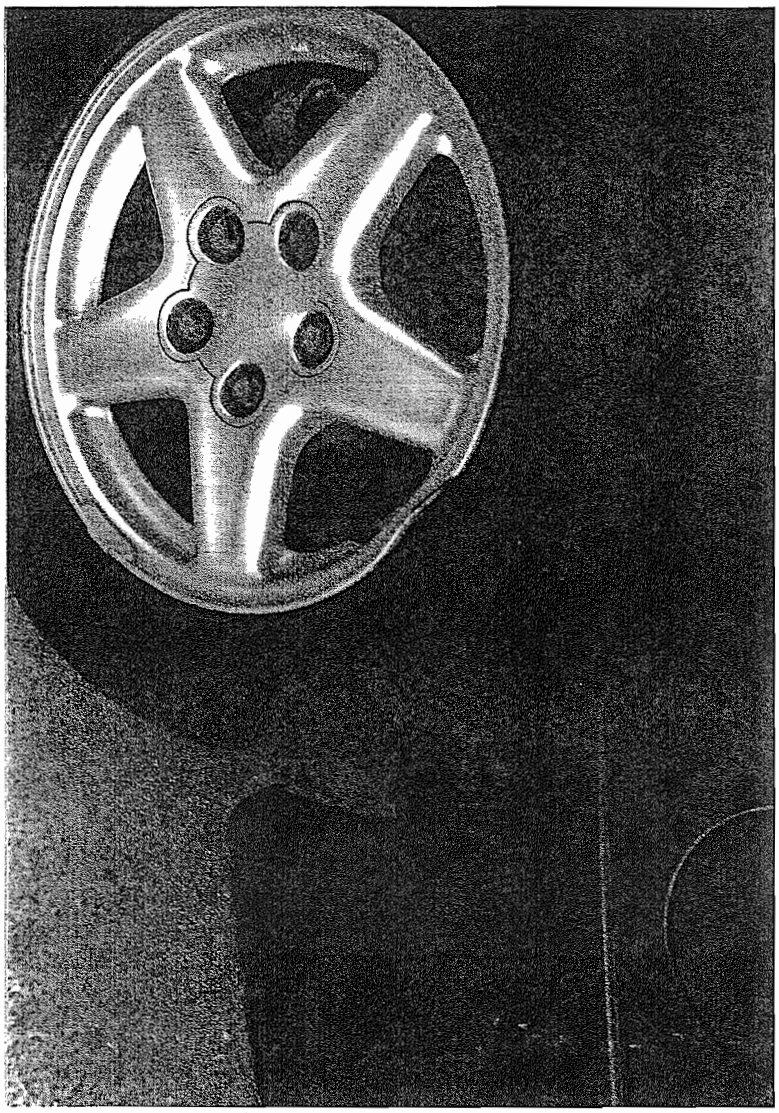
TYPICAL DATA FOR PLASTIMENT	
ASTM CERTIFICATION	ASTM C-494 Types B and D
COLOR	Yellow/Green
SPECIFIC GRAVITY g/ml	1.18 ± 0.5
pH	> 8
CHLORIDES %	< 0.1











Addison!

RON WHITEHEAD
(972) 450-7028
(972) 450-7043 FAX

Town of Addison 5300 Belt Line Road P.O. Box 9010, Addison, Texas 75001-9010

11-24-03

Chris,

Let's figure this out quickly. Have we had other claims? I don't really understand what happened.

R—

November 19, 2003

Mr. Ron Whitehead
City Manager, Town of Addison
P. O. Box 9010
Addison, Texas 75001

Via CMRRR# 7003 1010 0003 7347 3197

RE: Automobile Accident on Addison Road, north of the railroad tracks on Friday October 17, 2003

Dear Mr. Whitehead,

This letter is a request for reimbursement for damages sustained in a single car accident on Addison Road, north of the railroad tracks, in front of the Hasty Mart on October 17, 2003.

On October 17, 2003 my husband was driving our car south on Addison Road. At the time there was significant construction underway. The lanes shifted to single lanes north and south, with the right lane southbound being entirely closed. A large median on the left side of the left lane was directly parallel with an oversized excavator, which was parked in the right lane, all southbound. In the dark, it was impossible to see the median, and drivers veered to the left to avoid the excavator. There was no warning of the right side of the median, which is three to four feet wide. The only warning was located on the far-left side of the median, and there was no flashing or reflective light on it. Additionally, there was no yellow paint on the median curb to give notice of it. Inevitably, the driver's side of the car hit the median with both tires, resulting in two flat tires, two broken rims, and major damage to be repaired.

As we sat in the parking lot of the Mailboxes USA waiting for our taxi to arrive, we witnessed three additional cars hit the same median with the same result. This all happened within a span of fifteen minutes. One of the other drivers who hit the median had witnessed earlier in the evening another person waiting in the same parking lot with a flat tire. I have the phone numbers of two of the other casualties and a license plate of the third.

At this time, I request the reimbursement of my expenses for the damage to my car, which is $7,105.85. This mishap caused me to be forty minutes late to pick up my young children from their school where the middle school students were conducting a babysitting fundraiser, which is why we did not call a tow truck that evening. My family was not the only group of people affected, the middle school teachers and the director of my children's school, which is located in Addison, Texas were also impacted.

The hope is to resolve this matter quickly and quietly. To expedite matters, I have enclosed copies of the photographs I took the next day illustrating the exact location of the accident, the median, the damage to our car, and the damage to one of the other cars. Also enclosed is the copy of the repair bill to fix our car.

Please do not hesitate to contact me if necessary. I can be reached at home at 972-702-9944 or on my cell phone at 214-497-7899 or by email at lisalesniak@sbcglobal.net. I look forward to resolving this matter quickly.

Sincerely,

Lisa J. Lesniak

Enclosures: 10 photographs
Repair Bill

Cc: Jim Lesniak

49589201 622176

Park Place MOTORCARS
Mercedes-Benz
4023 OAK LAWN
DALLAS, TEXAS 75219
(214) 559-2310

JAMES J LESNIAK
LISA LESNIAK
1526 LAREN LANE
DALLAS, TX 75244
HOME: 972-702-9944 BUS: 214-497-7896

INVOICE

DUPLICATE 3
PAGE 1

SERVICE ADVISOR: 709 ARUN MENON

PAINT TRIM	YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE	TAG
MIDNIGHT B	00	PORSCHE 996	WP0AA2993YS621313	L97GZW	21419/21419	T7597

DEL DATE	PROD. DATE	WARR. EXP.	PROMISED	PO NO.	RATE	PAYMENT	INV. DATE
24FEB2000	17DEC99	24FEB2004	18:00 30OCT03		VARIABLE	CASH	07NOV2003

R.O. OPENED	READY	OPTIONS:
17:20 18OCT03	18:47 07NOV03	STK:ETM27868 DLR:653 ENG:3.4 Liter TRN:MAN 1)**RC #0548 **WHEEL LOCK KEY #026 2)** NO OPEN RE-CALLS 2.10.00

LINE OPCODE TECH TYPE HOURS			LIST	NET	TOTAL
A CLIENT REPORTS DAMAGE TO LEFT FRONT AND REAR TIRES ADVISE 2RW MOUNT AND BALANCED TIRES AND WHEELS.					
	678 CP1			50.00	50.00
1	996-362-140-50	10 X 18 SPORT DESIGN	1257.28	1257.28	1257.28
1	996-362-134-55	7.5X18 SPORT WHEEL	1183.11	1183.11	1183.11
1	265-35ZR18-PZN3	PIRELLI P-ZERO/N3	255.00	230.41	230.41
1	225-40ZR18-PZN3	PIRELLI P-ZERO/N3	200.00	191.84	191.84
PARTS: 2862.64 LABOR: 50.00 OTHER: 0.00				TOTAL LINE A:	2912.64
21419 CP TECH 678 1.50 TU REPLACED BOTH FRONT AND REAR WHEELS AND TIRES ON LEFT SIDE FO VEHICLE.					
**********					
B FOUR WHEEL THRUST ANGLE ALIGNMENT. 331AP FOUR WHEEL THRUST ANGLE ALIGNMENT.					
	678 CP3			189.95	189.95
PARTS: 0.00 LABOR: 189.95 OTHER: 0.00				TOTAL LINE B:	189.95
21419 CP TECH 678 3.00 TU PERFRMOED 4 WHEEL THRUST ANGLE ALIGNMENT ON VEHICLE.					
**********					
C** INSURANCE REQUESTS PERFORM REPAIRS AS PER ESTIMATE C108 REPLACED DAMAGE SUSPENSIONS.					
	678 CPP			1211.51	1211.51
1	996-343-041-04	SHOCK ABSORBER	296.40	296.40	296.40
1	996-343-018-04	SHOCK ABSORBER MOUNT	73.68	73.68	73.68
1	996-343-515-05	STRUT BEARING	28.83	28.83	28.83
1	996-333-051-04	SHOCK ABSORBER	272.20	272.20	272.20
1	996-333-059-03	SHOCK ABSORBER MOUNT	93.42	93.42	93.42
1	996-341-957-12	WHEEL CARRIER	446.87	446.87	446.87
1	999-053-041-03	BALL BEARING	63.67	63.67	63.67
1	964-341-661-01	WHEEL HUB FLANGE	13.85	13.85	13.85
1	999-053-050-00	DBL.ROW BALL BEARING	108.83	108.83	108.83
1	996-331-661-01	WHEEL CARRIER COVER	14.65	14.65	14.65
PARTS: 1412.40 LABOR: 1211.51 OTHER: 0.00				TOTAL LINE C:	2623.91

NOTICE PURSUANT TO §70.001, TEXAS PROPERTY CODE
I AM THE PERSON OR AGENT ACTING ON BEHALF OF THE PERSON, WHO IS OBLIGATED TO PAY FOR THE REPAIR OF THE MOTOR VEHICLE SUBJECT TO THE REPAIR CONTRACT. I UNDERSTAND THAT THIS VEHICLE IS SUBJECT TO REPOSSESSION IN ACCORDANCE WITH §9.609 Texas Business and Commerce Code, IF PAYMENT FOR THE REPAIR OF THE MOTOR VEHICLE BY A CHECK, MONEY ORDER, OR A CREDIT CARD TRANSACTION IS STOPPED, DISHONORED BECAUSE OF INSUFFICIENT FUNDS, NO FUNDS, OR BECAUSE THE MAKER OR DRAWER OF THE ORDER OF THE CREDIT CARD HOLDER HAS NO ACCOUNT OR THE ACCOUNT ON WHICH IT IS DRAWN OR THE CREDIT CARD ACCOUNT HAS BEEN CLOSED.

Supplies- A token charge equivalent to 8.5% of the labor charge is included for supplies used on your vehicle. Applicable supply items are: nuts, bolts, washers, tape, pins, aerospray, shellac, solvent, rags, carburetor cleaner, towels, solder, battery cleaner, wire, window sealer, pick up and disposal of hazardous waste, etc.

DISCLAIMERS OF WARRANTIES
Any warranties on the products sold hereby are those made by the manufacturer. The Seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of

MERCEDES-BENZ SIGNATURE SERVICE

DESCRIPTION	TOTALS
LABOR AMOUNT	
PARTS AMOUNT	
GAS, OIL, LUBE	
SUBLET AMOUNT	
MISC. CHARGES	
TOTAL CHARGES	
LESS INSURANCE	
SALES TAX	
PLEASE PAY THIS AMOUNT	

49589201 622176

Park Place MOTORCARS
Mercedes-Benz
4023 OAK LAWN
DALLAS, TEXAS 75219
(214) 559-2310

AMES J LESNIAK
ISA LESNIAK
526 LAREN LANE
ALLAS, TX 75244
OME: 972-702-9944 BUS: 214-497-7896

INVOICE

DUPLICATE 3
PAGE 2

SERVICE ADVISOR: 709 ARUN MENON

PAINT TRIM	YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE	TAG
IDNIGHT B	00	PORSCHE 996	WP0AA2993YS621313	L97GZW	21419/21419	T7597

DEL DATE	PROD. DATE	WARR. EXP	PROMISED	PO NO.	RATE	PAYMENT	INV. DATE
4FEB2000	17DEC99	24FEB2004	18:00 30OCT03		VARIABLE	CASH	07NOV2003

R.O. OPENED	READY	OPTIONS: STK:ETM27868 DLR:653 ENG:3.4 Liter
		TRN:MAN 1)**RC #0548 **WHEEL LOCK KEY #026 2)**
7:20 18OCT03	18:47 07NOV03	NO OPEN RE-CALLS 2.10.00

LINE OPCODE TECH TYPE HOURS			LIST	NET	TOTAL
1419 CP TECH 678 10.80 TU REPLACED DAMAGED SUSPENSION COMPONENTS AS					
ER INSURANCE ESTIMATE.					
**********					
** SUPPLEMENT REPAIRS ON INSURANCE REPLACE LEFT FRONT CONTROL ARM					
330 REPLACED LEFT FRONT CONTROL ARM.					
678 CP1				109.72	109.72
1 996-341-941-01 TRACK CONTROL ARM			671.59	671.59	671.59
ARTS: 671.59 LABOR: 109.72 OTHER: 0.00 TOTAL LINE D:					781.31
1419 CP TECH 678 1.00 TU REPLACED LEFT FRONT CONTROL ARM PER					
NSURANCE.					
**********					
** FOUR WHEEL THRUST ANGLE ALIGNMENT.					
331AP FOUR WHEEL THRUST ANGLE ALIGNMENT.					
678 CP3				189.95	189.95
ARTS: 0.00 LABOR: 189.95 OTHER: 0.00 TOTAL LINE E:					189.95
1419 CP TECH 678 PERFORMED 4 WHEEL THRUST ANGLE ALIGNMENT ON VEHICLE					
ER INSURANCE. 3.00 TU					
**********					

EST: 190.00 18OCT03 17:20 SA: 709

-- THANK YOU FOR CHOOSING PARK PLACE.
-- PLEASE CHECK OUR WEB SITE FOR
-- YEAR AROUND SPECIALS.
-- WWW.PARKPLACETEXAS.COM --

Experts in Excellence

NOTICE PURSUANT TO §70.001, TEXAS PROPERTY CODE

I AM THE PERSON OR AGENT ACTING ON BEHALF OF THE PERSON, WHO IS OBLIGATED TO PAY FOR THE REPAIR OF THE MOTOR VEHICLE SUBJECT TO THE REPAIR CONTRACT. I UNDERSTAND THAT THIS VEHICLE IS SUBJECT TO REPOSSESSION IN ACCORDANCE WITH §9.609 Texas Business and Commerce Code, IF PAYMENT FOR THE REPAIR OF THE MOTOR VEHICLE BY A CHECK, MONEY ORDER, OR A CREDIT CARD TRANSACTION IS STOPPED, DISHONORED BECAUSE OF INSUFFICIENT FUNDS, NO FUNDS, OR BECAUSE THE MAKER OR DRAWER OF THE ORDER OF THE CREDIT CARD HOLDER HAS NO ACCOUNT OR THE ACCOUNT ON WHICH IT IS DRAWN OR THE CREDIT CARD ACCOUNT HAS BEEN CLOSED.

Supplies- A token charge equivalent to 8.5% of the labor charge is included for supplies used on your vehicle. Applicable supply items are: nuts, bolts, washers, tape, pins, aerospray, shellac, solvent, rags, carburetor cleaner, towels, solder, battery cleaner, wire, window sealer, pick up and disposal of hazardous waste, etc.

DISCLAIMERS OF WARRANTIES

Any warranties on the products sold hereby are those made by the manufacturer. The Seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of said parts.

MERCEDES-BENZ SIGNATURE SERVICE

DESCRIPTION	TOTALS
LABOR AMOUNT	1751.13
PARTS AMOUNT	4946.63
GAS, OIL, LUBE	0.00
SUBLET AMOUNT	0.00
MISC. CHARGES	0.00
TOTAL CHARGES	6697.76
LESS INSURANCE	0.00
SALES TAX	408.09
PLEASE PAY THIS AMOUNT	7105.85

DURABLE SPECIALTIES, INC.
P.O. Box 381788
Duncanville, Texas 75138
972-296-6324

TOWN OF ADDISON PROJECT
INWOOD/SOUTH QUORUM
ACCESS – PHASE II
SUBMITTALS
DSI #323

DURABLE SPECIALTIES, INC.

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

TABLE OF CONTENTS
INWOOD/SOUTH QUORUM ACCESS – PHASE II
DSI#323

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	#6 BARE

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 304 No. 6 AWG Bare Wire

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

Traffic Signal Inc.
1801 BIG TOWN BLVD #700
MESQUITE, TEXAS 75149
PHONE:(214)381-2500
Fax:(214)381-2524

PACKING LIST

DATE
8/1/2003

BILL TO

SHIP TO
DURABLE SPECIALTIES 1211 SOUTH ALEXANDER DUNCANVILLE, TX 75137 TAG:072303

P.O. NO	SHIP VIA	FOB
072303		

ITEM	DESCRIPTION	BACK ORDER	QTY
141517	14/1 STR IMSA 51-7 1 X 2500'	0	2,500
1415170	14/1 STR IMSA 51-7 ORANGE 1 X 2500'	0	2,500
8BCT	8 STR BARE COPPER 1 X 5000', 1 X 4675'	0	9,675
6BCT	6 STR SD BARE CU 2 X 5000'	0	10,000
8XH	8 STR XHHW CU BLACK 6 X 5000'	0	30,000
6xh	6 STR XHHW COPPER BLACK 1 X 5000'	0	5,000
4XH	4 STR XHHW COPPER BLACK 1 X 2500'	0	2,500
14XHW	14 STR XHHW CU WHITE 10 X 2500'	0	25,000
14XH	14 STR XHHW BLACK 10 X 2600'	0	26,000
14XHO	14 STR XHHW CU ORANGE 8 X 2500'	5000	15,000

TRAFFIC SIGNAL INC.

CERTIFICATE OF COMPLIANCE

THIS IS TO CERTIFY THAT ALL MATERIAL SHIPPED AGAINST YOUR PURCHASE ORDER MEETS ALL REQUIREMENTS OF SPECIFICATIONS APPLICABLE TO THIS ORDER.

DATE 6/01/03

CUSTOMER PURCHASE ORDER NUMBER 072303

TRAFFIC SIGNAL PART NUMBER 6BCT

SALES ORDER NUMBER

QUANTITY SHIPPED 10000'

LENGTHS SHIPPED 2 X 5000'

MATERIAL 6 STR BARE COPPER

UL STYLE NUMBER (IF APPLICABLE)

BY: JOHN FRAZIER

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	TXI Concrete Mix Design #0709 and #0728

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 305 Ground Box (Type A) w/ Apron

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

1341 West Mockingbird Lane • Dallas, Texas 75247 • 972.647.6700 • www.txi.com

May 22, 2003

Durable Specialties
P.O. Box 381788
Duncanville, TX 75138

Attn: Mr. Jack Owens

RE: TxDOT Various State Projects Calender Year 2003

0709 0728

The attached concrete mix designs utilizing the appropriate ASTM C-33 or ASTM C-330 aggregate are proposed for use on the above referenced project for ready-mixed concrete to be furnished by TXI.

To ensure that the correct mix is delivered to your project, please order by the mix design number which appears in the upper left hand corner of the mix design.

TXI certifies that the above mix designs, when ordered by specified design identity, and delivered by TXI, will meet or exceed the indicated design strength at the designated age when tested in accordance with the applicable and current ASTM Standards C 31, C 39, C 78, C 172, C 293, applicable provisions of C 94, and evaluated in accordance with applicable provisions of the ACI Building Code.

TXI would like to be included on your mailing list to receive all test reports. ASTM C 94 entitles a manufacturer to receive copies of all test reports when strength of concrete is used as a basis for acceptance.

Please contact us if you have any questions or require any additional information. Please notify TXI of approval of the proposed mix designs prior to their use. Failure to notify us prior to first placement shall constitute acceptance. To ensure that the proper mix designs are ordered, please send a copy of this letter, after approval, to the above referenced project to be used by the person ordering the concrete for this job.

Sincerely,
TXI Operations, LP

Victor H. Villarreal
Manager - Q.A./Q.C.

GENERAL NOTES

Pumping Notes:

1. 5" minimum diameter lines with no reduction to smaller lines.
2. Keep rubber hose to absolute minimum length and plan pipe with as few 90 degree angles as possible.
3. Samples for slump and strength tests should be taken at discharge end of hose for strength guarantee to be valid.
4. To prime pump lines, a minimum of 8.0 sack grout is recommended for lubrication. In the case of strength concrete, equivalent strength grout should be used if the grout remains in the placement.
5. Pump mixes are based on minimum cement content pumped at ground level. As pump line increases in length or height and/or layout configuration changes, mix design modifications may be required to assure strength and pumpability at additional cost to the contractor.
6. TXI cannot control, and is therefore not responsible for excessive loss of entrained air content when loss occurs as a result of boom configuration or free fall discharge from hose. To ensure minimum air loss when pumping, maintain a continuous flow of concrete through the entire length of pipe and do not subject concrete to free fall.
7. The term "pumpable concrete" refers to concrete which is capable of being transported through an apparatus which forces concrete to the placing position through a pipeline or hose as long as the recommendations indicated above are followed. The term "pumpable concrete" does not relate to concrete proportioned in a particular manner or containing a specific type of product.

We are enclosing all available back up data for the referenced mix design(s). If the strength information is not available, or is insufficient, confirmation tests may have to be conducted by your laboratory.

County: Dallas
Project: TxDOT Various Projects (2003)
Date: May 22, 2003
Design Num: 0709
Class: A

CONCRETE DESIGN WORK SHEET
(NATURAL AGGREGATES) (METRIC)

AGGREGATE CHARACTERISTICS:

		SOURCE	Specific Gravity	SSD Unit Wt. Kg / m³	% Solids	Fineness Moduls
Fine Aggregate	(FA)	TXI Bell Savoy (Wade)	2.65	1601	60.4%	2.70
Coarse Aggregate	(CA)	TXI Mill Creek (GRADE 4)	2.71	1599	59.0%	
Cement		MIDLOTHIAN TYPE I/II	3.10	3100		
Fly Ash		0	0	0		
Water		CITY	1.00			

ADMIXTURE DOSAGES

(Description)	(Amt. / Batch)	
Daratard 17 or WRDA / Hycol	1.3 to 2.6	ml / Kg
0	0	ml / Kg

AIR ENTRAINING AGENT DOSAGE

(Description)	(Amt. / Batch)	
Daravair-1000	0.3 to 1.3	ml / Kg

DESIGN FACTORS:

Cement Factor	(CF)	279 Kg / m³
Coarse Aggregate Factor	(CAF)	0.75
Water Cement Ratio	(WCR)	0.53 L / Kg
Air factor	(AF)	6.00%
Percent Fly Ash	0.00	Specific Gravity (fly ash)

BATCH FACTOR:
Size of Batch (Full Size) = 1000 L = 1.0 m³

BATCH DESIGN (ONE SACK)	VOLUMES:		Liters	VOL. TO WT. (Kg) VOL. x 1.00 x SP. GR.	1000 L BATCH WTS.	FULL SIZE BATCH FACTOR	FULL SIZE BATCH Kg / m³
1. Concrete Yield = L / m³	1000		*1				
2. Volume CA = Yield x CAF x Solids	1000 x 0.75 x 0.59 =	442.500		x 1.00 x 2.71 =	1199.18	1.00	1199
Volume Mortar = Yield - Vol. CA	1000 - 442.5 =	557.500	*1				
4. Volume Water = WCR * CF	0.53 x 279 =	148.535	*2	x 1.00 x 1.00 =	148.5349	1.00	149
5. Volume Fly Ash = (CF/3.10) x % Fly Ash / 100	279 / 3.10 x 0.00 / 100 % Fly Ash =	0.000	*1	x 1.00 x 0 =	0	1.00	0
6. Volume Cement = (CF/3.10) - Vol. Fly Ash	89.9 - 0.000 =	89.949		x 1.00 x 3.10 =	278.84	1.00	279
7. Volume Entrained Air = Yield x AF	1000 x 6.00% =	60.000					
8. Volume Paste = Water + Fly Ash + Vol. Cement + Air	148.5 + 0.000 + 89.949 / 60 =	298.5 ***					
9. Volume FA = Vol. Mortar - Paste	557.5 - 298.5 =	259.016		x 1 x 2.65	686.39	1.00	686 / 2313
10. Yield (Sumation of 2,4,5,7 & 9 to check No. 1 Above)	=	1000.000					

11. Fine Aggregate Factor = Vol. FA / FA Solids x Vol. Mortar = 259.016 / 60.4% x 557.500 = 0.769 Slump: 102 mm max.

* Correct for free Moisture or Absorption
** Specific Gravity of Fly Ash from Source to be Used
*** Sum of Steps 4, 5, 6 & 7

REMARKS: Volumes in Above Are Absolute Unless Otherwise Noted
Water Added at Mixer Must Include the Liquid of the Admixtures

Project : _____ Control: _____ Section: _____ Job: _____

Cement Type: _____ Source: _____ Concrete Class: A

Beam Number A& B	Date Made	Date Broken	Width	Depth	Factor	Break Pounds	Corrected Break	Avg.	Description	Inspector
67	11/4	11/11/02	5 7/8	6	1.01	665	672	705	Sidewalk, Lake St.	CWH
			6	5 7/8	1.04	710	738			
68	11/7	11/14	6	6 1/8	.96	465	446	496	Sidewalk Driveway on Ramp E/ Cherry	CWH
			6	5 7/8	1.04	525	546			
69	11/8	11/15	6	5 7/8	1.04	530	551	511	Sidewalk & Rip Rap	CWH
			6 1/8	6 1/8	.94	500	470			
70	11/11	11/18	6 1/8	6	.98	570	559	535	Sidewalk, Catchment 17th St.	CWH
			5 7/8	6	1.01	505	510			
71	11/14	11/21	6 1/8	6	.98	435	426	430	Curb & Gutter, Leonard Lane	CWH
			5 7/8	6	1.01	430	434			
72	11/19	11/26	6 1/8	6	.98	530	519	535	Sidewalk, Rio Grande	RM
			6	6	1.0	550	550			
73	11/22	12/02	6	6 1/8	.96	480	461	471	Rip Rap E Lonestar	R
			6	6 1/8	.96	500	480			
74	11/22	12/02	6 1/8	6	.98	475	466	498	Rip Rap E Lonestar	R
			6	6	1.0	530	530			
75	12/05	12/12	6 1/8	6 1/8	.94	490	461	509	Inlets C-19 & A-42 (TOPS)	CWH
			6	6 1/8	.96	580	557			
76	12/06	12/13/02	6	6	1.0	410	410	413	Inlets B-28 & B-35 (TOPS)	AWH
			6	6	1.0	415	415			
77	12/10	12/17/02	6	6 1/8	.96	430	413	407	Drive Cherry & Henderson	AWH
			6	6	1.0	400	400			

Project : ______________________ Control: ____________ Section: ________ Job: ________
Cement Type: ____________ Source: ____________ Concrete Class: A

Beam Number A& B	Date Made	Date Broken	Width	Depth	Factor	Break Pounds	Corrected Break	Avg.	Description	Inspector
78	12/10	12/17	6	6	1.0	445	445	429	Inlets B7 & B9 TOPS	AJH
			6	6 1/8	.96	430	413			
79	12/13	12/20	6	6	1.0	465	465	458	Inlets A8, A47 & A48 (Tops)	CWH
			6 1/8	6	.98	460	451			
80	12/13	12/20	6 1/8	6	.98	410	402	405	CURB [illegible] - [illegible]	[illegible]
			6 1/8	6	.98	415	408			
81	12/16	12/23	6	6	1.0	420	420	414	Inlets A2 & A3	CWH
			6 1/8	6	.98	415	408			

County: Dallas
Project: TxDOT Various Projects (2003)
Date: May 22, 2003
Design Num: 0728
Class: C

CONCRETE DESIGN WORK SHEET
(NATURAL AGGREGATES) (METRIC)

AGGREGATE CHARACTERISTICS:

		SOURCE	Specific Gravity	SSD Unit Wt. Kg / m³	% Solids	Fineness Moduls
Fine Aggregate	(FA)	TXI Bell Savoy (Wade)	2.65	1606	60.4%	2.70
Coarse Aggregate	(CA)	TXI Mill Creek (Grade 4)	2.71	1606	59.0%	
Cement		MIDLOTHIAN TYPE I/II	3.10	1510		
Fly Ash		0	0	0		
Water		CITY	1.00			

ADMIXTURE DOSAGES (Description)	(Amt. / Batch)	
Daratard 17 or WRDA / Hycol	1.3 to 2.6	ml / Kg

AIR ENTRAINING AGENT DOSAGE (Description) (Amt. / Batch)

DESIGN FACTORS:

Cement Factor	(CF)	335 Kg / m³
Coarse Aggregate Factor	(CAF)	0.71
Water Cement Ratio	(WCR)	0.44 L / Kg
Air factor	(AF)	1.00%
Percent Fly Ash	0.00	Specific Gravity (fly ash)

BATCH FACTOR:
Size of Batch (Full Size) = 1000 L = 1.0 m³

BATCH DESIGN (ONE SACK)	VOLUMES:	Liters	VOL. TO WT. (Kg) VOL. x 1.00 x SP. GR.	1000 L BATCH WTS.	FULL SIZE BATCH FACTOR	FULL SIZE BATCH Kg / m³
1. Concrete Yield = 1000 L / m³		*1				
2. Volume CA = Yield x CAF x Solids	1000 x 0.71 x 0.59 =	418.900	x 1.00 x 2.71 =	1135.22	1.00	1135
3. Volume Mortar = Yield - Vol. CA	1000 - 418.9 = 581.100	*1				
4. Volume Water = WCR * CF	0.44 x 335 =	148.535 *2	x 1.00 x 1.00 =	148.5349	1.00	149
5. Volume Fly Ash = (CF/3.10) x % Fly Ash / 100	335 / 3.10 x 0.00 / 100 % Fly Ash =	0.000 *1	x 1.00 x 0 =	0	1.00	0
6. Volume Cement = (CF/3.10) - Vol. Fly Ash	107.9 - 0.000 =	107.939	x 1.00 x 3.10 =	334.61	1.00	335
7. Volume Entrained Air = Yield x AF	1000 x 1.00% =	10.000				
8. Volume Paste = Water + Fly Ash + Vol. Cement + Air	148.5 + 0.000 + 107.939 + 10 = 266.5 ***					
9. Volume FA = Vol. Mortar - Paste	581.1 - 266.5 =	314.626	x 1 x 2.65	833.76	1.00	834 / 2452
10. Yield (Sumation of 2,4,5,7 & 9 to check No. 1 Above)	=	1000.000				

11. Fine Aggregate Factor = Vol. FA / FA Solids x Vol. Mortar = 314.626 / 60.4% x 581.100 = 0.896 Slump: 102 mm max.

* Correct for free Moisture or Absorption
** Specific Gravity of Fly Ash from Source to be Used
*** Sum of Steps 4, 5, 6 & 7

REMARKS: Volumes in Above Are Absolute Unless Otherwise Noted
Water Added at Mixer Must Include the Liquid of the Admixtures

1341 West Mockingbird Lane · Dallas, Texas 75247 · 972.647.6700 · www.txi.com

MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTITY

Name
TXI OPERATIONS, LP

Address
1341 MOCKINGBIRD LANE, DALLAS, TEXAS 75247

Emergency Telephone Number
(972) 647-6700

Person Responsible for Preparation
NANCY GARNETT

Date
NOVEMBER 1998

Common Name (used on label)
CTB OR READY-MIX

Chemical Family
DOES NOT APPLY

Chemical Name
DOES NOT APPLY

Formula
MIXTURE OF PORTLAND CEMENT, WATER, AGGREGATE AND/OR SAND

Trade Name & Synonyms
CEMENT TREATED BASE (CTB), READY-MIX, CONCRETE MIX, WET CONCRETE, CEMSAND STABILIZING SAND

SECTION 2 – HAZARDOUS INGREDIENTS

Hazardous Component	CAS #	% Typical	TLV (Units)	PEL (Units)
AGGREGATE/SAND:				
QUARTZ	14808-60-7	*	0.1 mg/m³**	0.1 mg/m³**
CRISTOBALITE	14464-46-1	*	0.05 mg/m³**	0.05 mg/m³**
PORTLAND CEMENT	65997-15-1	*	10 mg/m³	15 mg/m³ (total dust) 5 mg/m³**

*Varies depending on product **Respirable fraction

PEL: Permissible Exposure Limit established by the Occupational Safety and Health Administration (OSHA).
TLV: Threshold Limit Value established by the American Conference of Governmental Industrial Hygienists (ACGIH).

SECTION 3 – PHYSICAL DATA

Boiling Point
DOES NOT APPLY

Specific Gravity (H_2O = 1)
APPROXIMATELY 2.4

Vapor Pressure (mm = Hg)
DOES NOT APPLY

Percent Volatile by Volume
0%

Vapor Density (Air = 1)
DOES NOT APPLY

Evaporation Rate (n=Butyl Acetate)
DOES NOT APPLY

Percent Soluble in Water
SLIGHT (0.1 - 1.0%)

Reactivity in Water
WILL NOT EVOLVE FLAMMABLE OR TOXIC GASES

Appearance and Odor
GRAY, MUD-LIKE, VISCOUS SUBSTANCE. NO ODOR

Hazardous Material Information System Identifier (HMIS)
HEALTH = 2* FLAMMABILITY = 0 REACTIVITY = 1 PERSONAL PROTECTION = X

SECTION 4 – FIRE AND EXPLOSION DATA

Flash Point
WILL NOT IGNITE

Flammable Limits in Air (% by Volume)
Lower: DOES NOT APPLY Upper: DOES NOT APPLY

Extinguishing Media
DOES NOT APPLY

Auto Ignition Temperature
DOES NOT APPLY

Unusual Fire and Explosion Hazards
NONE

Special Fire Fighting Procedures
NONE

SECTION 5 - HEALTH INFORMATION

Signs and Symptoms of Exposure - (1) Acute Overexposure

CONTACT WITH THE SKIN OR EYES MAY RESULT IN IRRITATION AND/OR ALKALI BURNS.

Signs and Symptoms of Exposure - (2) Chronic Overexposure

NONE DETERMINED FROM TYPICAL EXPOSURE TO PRODUCT. EXCESSIVE EXPOSURE BY INHALATION TO CONCRETE WHICH IS BEING SAWED, OR OTHERWISE CAUSED TO EMIT PARTICULATES, OVER AN EXTENDED PERIOD OF TIME MAY RESULT IN THE DEVELOPMENT OF PULMONARY DISEASES INCLUDING PNEUMOCONIOSIS AND SILICOSIS, DUE TO THE PRESENCE OF CRYSTALLINE SILICA. OVER TIME, EXPOSURE TO CRYSTALLINE SILICA COULD EVENTUALLY LEAD TO LUNG CANCER.

Medical Conditions Generally Aggravated by Exposure

DERMATITIS OR OTHER SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE.

Chemical/Component Listed as Carcinogen	NTP	IARC	OSHA
QUARTZ, CRISTOBALITE	YES	YES	NO

Other Exposure Limits

NONE

Emergency & First Aide Procedures for Indicated Routes of Entry

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.
SKIN CONTACT: IMMEDIATELY WASH SKIN THOROUGHLY WITH SOAP AND WATER.

SECTION 6 - REACTIVITY DATA

Stability

STABLE

Conditions to Avoid

DOES NOT APPLY

Incompatibility (Materials to Avoid)

MATERIAL IS HIGHLY ALKALINE. CONTACT WITH ACIDS MAY PRODUCE A VIOLENT, EXOTHERMIC REACTION AND MAY EVOLVE TOXIC GASES OR VAPORS, DEPENDING UPON THE ACID INVOLVED.

Hazardous Decomposition or Combustion Products

DOES NOT APPLY

Hazardous Polymerization

WILL NOT OCCUR

Conditions to Avoid

DOES NOT APPLY

SECTION 7 - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Leaked or Spilled

CLEAN-UP OF SPILLS MAY REQUIRE PERSONAL PROTECTIVE EQUIPMENT TO PREVENT DUST EXPOSURES AND PROTECT AGAINST ALKALI BURNS OR IRRITATION. SEE SECTION 8.

Waste Disposal Method

IF THIS MATERIAL, AS PACKAGED, BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA FOR A HAZARDOUS WASTE AS DEFINED BY THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE AUTHORITY OF THE RESOURCE CONSERVATION AND RECOVERY ACT (40CFR 261). DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION 8 - PERSONAL PROTECTION INFORMATION

Respiratory Protection

NOT NECESSARY UNDER CONDITIONS OF NORMAL USE. IF MATERIAL IS DRIED AND IS SUBJECT TO CONDITIONS CAUSING DUST TO BE EMITTED, USE NIOSH/MSHA APPROVED RESPIRATORS FOR PROTECTION AGAINST CRYSTALLINE SILICA AND NUISANCE DUSTS.

Ventilation

NOT NECESSARY UNDER CONDITIONS OF NORMAL USE.

Protective Gloves

RUBBER, PVC, NEOPRENE OR OTHER IMPERVIOUS MATERIAL.

Eye Protection

GOGGLES

Other Protective Clothing or Equipment

RUBBER HIGH TOP BOOTS, ARM SLEEVES AND APRONS MAY BE USED, WHEN NECESSARY, TO PREVENT SKIN CONTACT.

SECTION 9 - SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

SHOULD BE STORED IN A MANNER TO PREVENT CONTACT WITH STRONG ACIDS.

Other Precautions

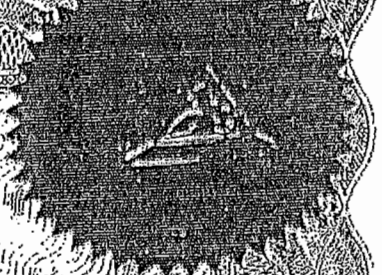
NONE

TXI015

ARMORCAST PRODUCTS COMPANY

Engineered Enclosures for the Utility Industry

Tx DOT



WOMEN & MINORITY BUSINESS ENTERPRISE (WMBE) CLEARINGHOUSE

CERTIFICATE OF ELIGIBILITY

VERIFICATION EXPIRATION DATE: 8/25/02

The Women & Minority Business Enterprise (WMBE) Clearinghouse hereby certifies that it has audited and verified the eligibility of **ARMORCAST PRODUCTS CO** of NORTH HOLLYWOOD, CA as a WBE pursuant to California Public Utilities Commission (CPUC) General Order 156, and the terms and conditions stipulated in the Verification Application Package. This Certificate shall be valid only with the Clearinghouse seal affixed hereto.

Eligibility must be maintained at all times, and renewed within thirty (30) days upon any changes of ownership or control. The Clearinghouse may reconsider WMBE status if it is determined that such status was obtained by false, misleading or incorrect information. Failure to comply may violate Section 8285 of the Public Utilities Code cited in the Verification Application which can result in a denial of eligibility. Deverification may occur if, in a formal opinion, the California Public Utilities Commission determines that a WMBE Verification criterion under which eligibility was awarded becomes invalid. The Clearinghouse may request additional information or conduct on-site visits during the term of verification to verify eligibility.

This certification is valid only for the period that the above named firm remains eligible as determined by the Clearinghouse. Utility companies may direct inquiries concerning this Certificate to the WMBE Clearinghouse at (800)869-7385 in Los Angeles and (800)359-7998 in San Francisco.

August 27, 1999

VON: 90DS0001

VII.

All Boxes sold as Assemblies unless ordered as BOX ONLY.

TEXAS DOT 20K SPLICE BOXES

In compliance with TXDOT 2001 specifications.
Box base and cover constructed of "RPM", Reinforced Polymer Concrete.

Includes 1/2" captive SS Hex-head bolts.

Unistrut bolt down with floating nut in box base.

Non-Skid cover surface. 0.5 minimum friction coefficient.

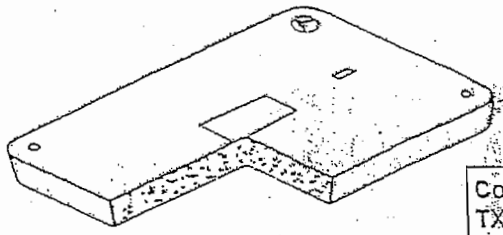
Cover Identifications – Inside
1. Armorcast Logo and Date
2. Cover part number

Box Identifications – Inside and Outside
1. Armorcast Logo and Date
2. Box part number

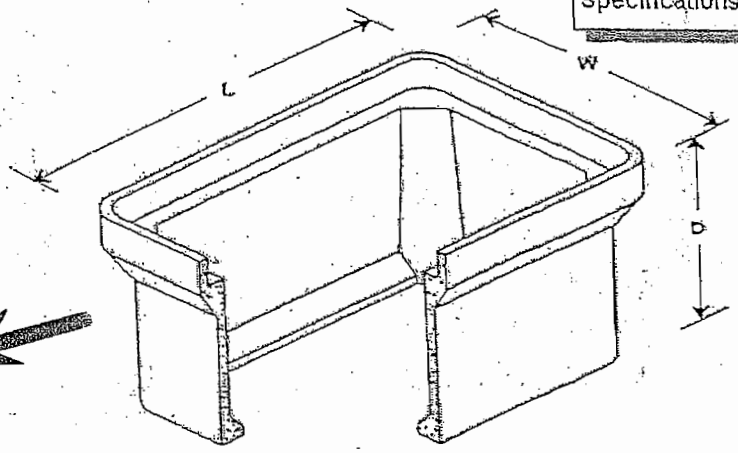
1" High lettering on cover.

All covers read " Danger High Voltage "
Additional logos added per job specs.

Specify Additional Logos when ordering:
Traffic Signal; TXDOT Signal; Illumination; Lighting; Fiber Optics; Communications as these appear on TXDOT specifications.



Conforms to TXDOT 2001 Specifications

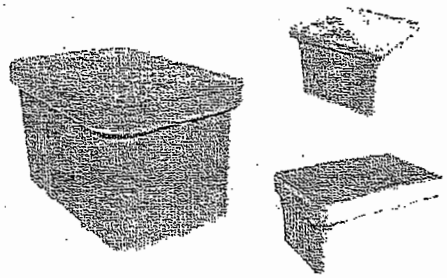


Additional District logos have included: Pedestrian Lighting; FTM; Telephone; Call Box; Emergency Shut-Off.

TxDOT	L x W x D	Assembly Part Number	Assembly Wt.	Per Pallet	Replacement Cover
Type " A "	13 x 24 x 12	A6001946TAPCX12	90	20	A6001866T
Type " B "	13 x 24 x 24 Stacked	A6001946TAPC-Stacked	140	15	A6001866T
Type " C "	17 x 30 x 12	A6001640TAPCX12	132	12	A6001643T
Type " D "	17 x 30 x 22	A6001640TAPCX22	175	6	A6001643T
Type " E "	17 x 30 x 18	A6001640TAPCX18	156	6	A6001643T
Type " F "	17 x 30 x 18	A6001640TAX18	128	16	A6001643T

Popular 20K Polymer Concrete Splice Boxes. Contact Factory Representative for additional sizes.

W x L x D	Assembly Part Number	Assembly Wt.	Per Pallet
12 x 12 x 12	A6001423TAPCX12	42	27
12 x 18 x 12	A6001425TAPCX12	56	18
24 x 36 x 12	A6001974TAPCX12	195	6
24 x 36 x 18	A6001974TAPCX18	220	4
24 x 36 x 24	A6001974TAPCX24	270	2
30 x 48 x 12	A6001430TAPCX12	270	2
30 x 48 x 18	A6001430TAPCX18	300	2
30 x 48 x 24	A6001430TAPCX24	370	1
30 x 48 x 30	A6001430TAPCX30	520	1
30 x 48 x 48	A6001430TAPCX48	580	1



ARMORCAST

ARMORCAST PRODUCTS COMPANY
13230 Saticoy St. North Hollywood, CA 91605
Phone: 818: 982-3600 Fax 818:982-7742
www.info@armorcastprod.com

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access-Phase II
LOCATION: Inwood Connection
JOB NO: DSI#323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	30"x30" 1 Message

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

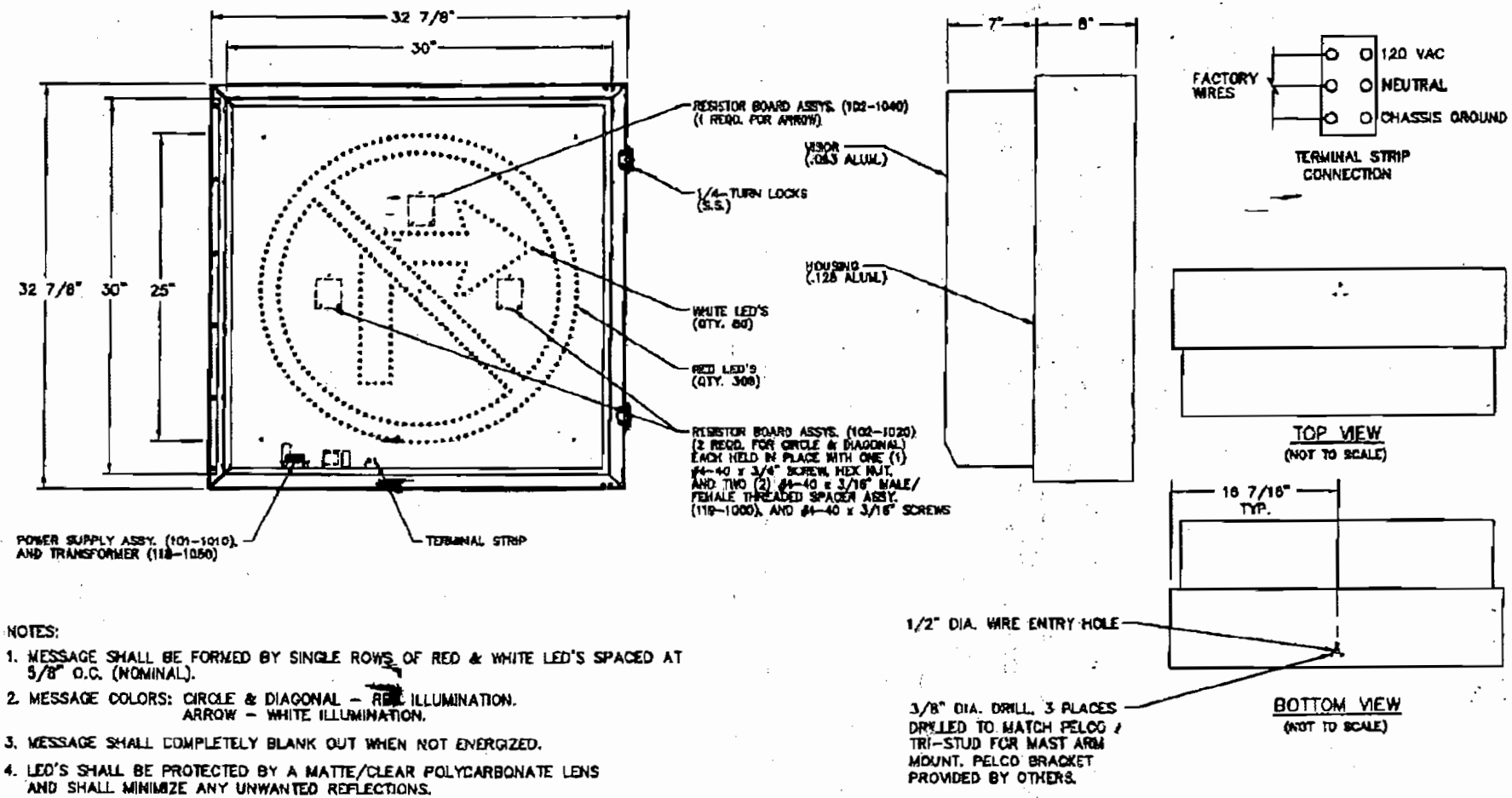
COMMENTS: Materials to be used for Item 306 Traffic Sign (SR3-1) (Mast Arm mounted)(LED Blankout)

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

FAXED



NOTES:

1. MESSAGE SHALL BE FORMED BY SINGLE ROWS OF RED & WHITE LED'S SPACED AT 5/8" O.C. (NOMINAL).
2. MESSAGE COLORS: CIRCLE & DIAGONAL – RED ILLUMINATION.
   ARROW – WHITE ILLUMINATION.
3. MESSAGE SHALL COMPLETELY BLANK OUT WHEN NOT ENERGIZED.
4. LED'S SHALL BE PROTECTED BY A MATTE/CLEAR POLYCARBONATE LENS AND SHALL MINIMIZE ANY UNWANTED REFLECTIONS.
5. HOUSING SHALL BE DRILLED TOP AND BOTTOM FOR PELCO TR-STUD BRACKET. 1/2" DIA. HOLE PROVIDED IN BOTTOM OF HOUSING FOR WIRE ENTRANCE.
6. HOUSING SHALL MEET THE REQUIREMENTS OF NEMA TYPE 4 ENCLOSURES.
7. SIGN SHALL BE EQUIPPED WITH FOUR (4) 3/16" DIA. WEEP HOLES LOCATED IN THE LOWER CORNERS OF THE HOUSING.
8. ENTIRE HOUSING ASSY. SHALL BE ACID ETCHED AND PAINTED WITH TWO COATS OF ZINC-CHROMATE PRIMER. DOOR FRAME, FACE PLATE, AND INTERIOR OF HOUSING AND VISOR SHALL BE PAINTED WITH TWO COATS OF HIGH QUALITY FLAT BLACK ENAMEL. EXTERIOR OF HOUSING SHALL BE PAINTED WITH TWO COATS OF HIGH QUALITY SEMI-GLOSS BLACK ENAMEL.
9. APPROXIMATE WEIGHT OF SIGN ASSY. – 80#

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS HAVE A TOLERANCE OF: ± 1/4"	NATIONAL SIGN AND SIGNAL 301 S. ARMSTRONG RD BATTLE CREEK, MI 49015
DRAWN BY: P.H.	TITLE 30" x 30" 1 MESSAGE / 1-WAY LED BLANK-OUT SIGN
DATE: 11/29/99	
OUR JOB NO.	
CUSTOMER/JOB NO.: PARADIGM P303241-01-VAR	SCALE: 1:12 · REVISION: · SIZE: A · DRAWING NO.: S449LED-5

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	Sign mounting hardware

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 307, 308 309 310
Traffic Sign (SR3-4) (SR3-8) (R3-5) (R10-12S) (Mast Arm Mount)

COPIES TO:

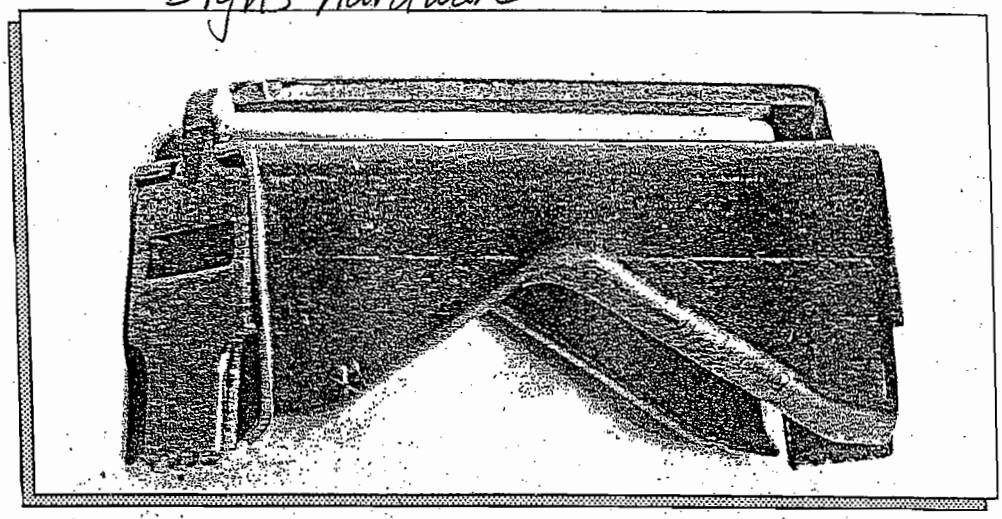
Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

SIGNFIX STAINLESS STEEL CLAMPS

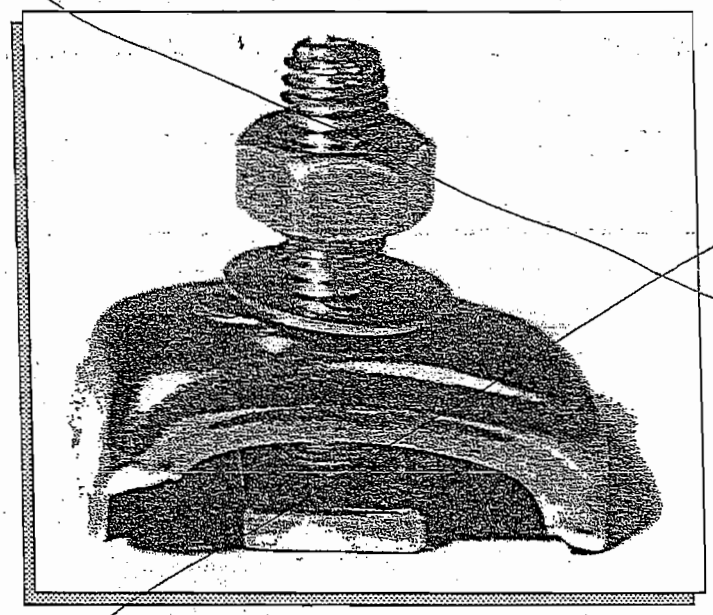
Signs hardware



UNIVERSAL CHANNEL CLAMP

- Attaches to any diameter post
- 12 gauge stainless steel

(HPN 034)



RSJ CLAMP

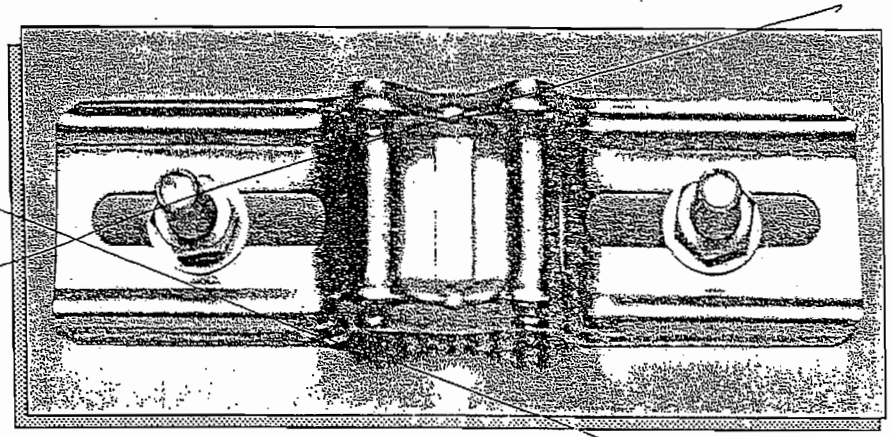
- Attaches to I-beam or U- channel post
- 14 gauge stainless steel
- Square-head bolt with nyloc nut prevents loosening of clamp

(HPN 101)

LIGHTWEIGHT STIFFENER CLAMP

- Attaches to post up to 2-3/8 in diameter
- All stainless steel
- Bolts to channel

(HPN 181)

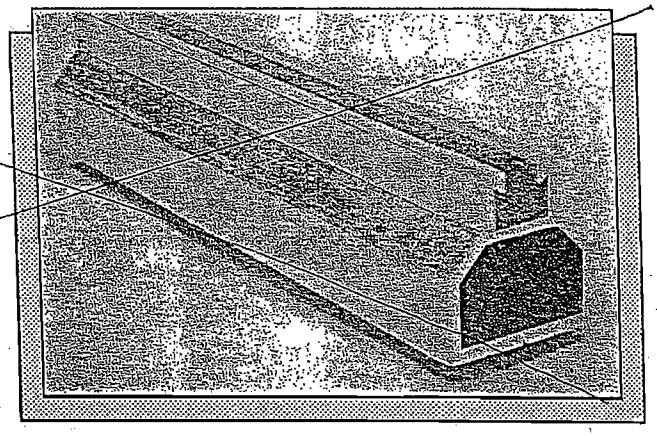


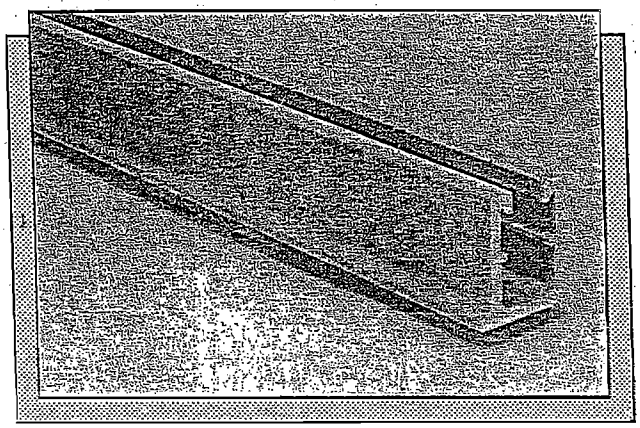
For information: J.O. Herbert Company Inc. 800-874-8385

SIGNFIX ALUMINUM EXTRUSIONS

Large Extrusion HPN055

*6061-T6 Aluminum
*Supports signs 10 ft to 30 ft in width
*16 ft stock lengths
*Joining section (HPN049) designed to join large extrusion to create length in excess of 16 ft.





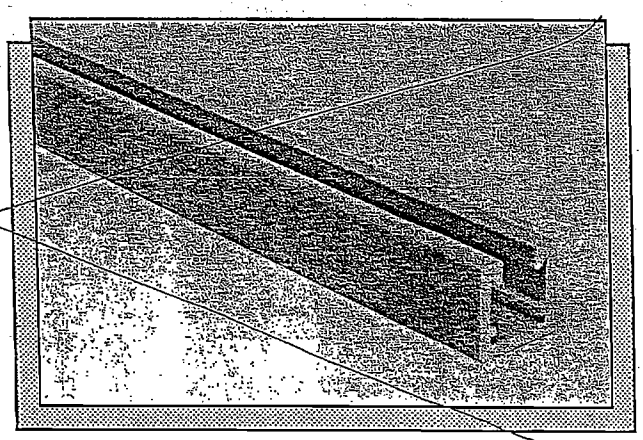
Medium Extrusion HPN053

Signs hardware

*6061-T6 Aluminum
*Supports signs 3 ft to 18 ft in width
*10 ft stock lengths
*Medium coupling (HPN051) designed to join medium extrusions to create length in excess of 10 ft.

Small Extrusion HPN052

*6061-T6 Aluminum
*Supports signs up to 3 ft in width
*10 ft stock lengths



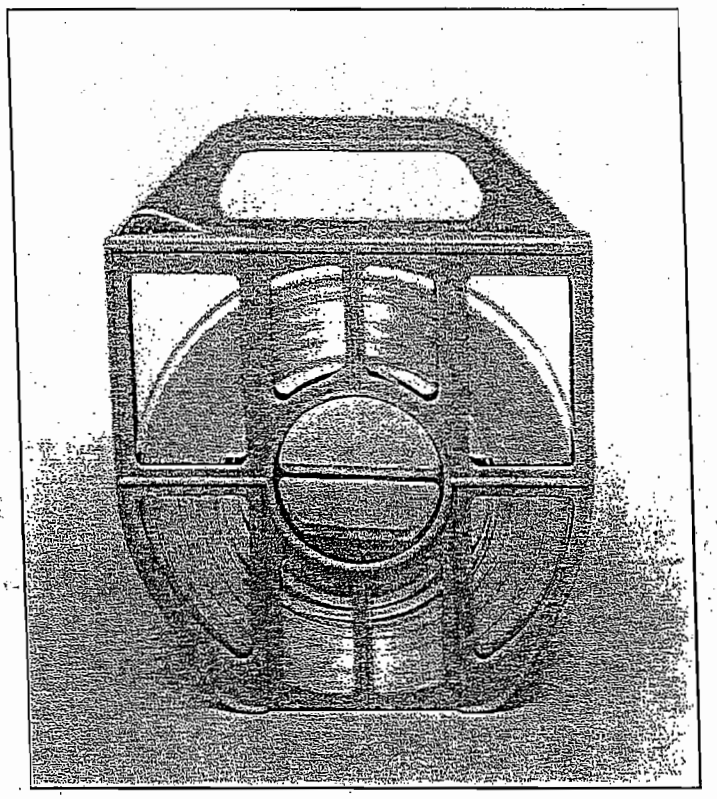
Advantages:

* Meets AASHTO Standard Specifications 1985 for Structural Support
* Each Extrusion Works With All Signfix Stainless Steel Clamps
* Extrusions Offer Proper Support To The Sign Blank For Maximum Reflectivity
* Extrusions And Hardware Offer Framework Capabilities For Multiple Sign Installations
* Extrusions Can Be Attached To The Sign Blank Without Damaging The Reflective Sheeting
* Signfix Products Will Mount To Any Type Pole Or Post

For information: J.O. Herbert Company Inc. 800-874-8385

SIGNFIX BANDING PRODUCTS

Signs hardware



Signfix features:

*PVC container
-Center spool recoils excess band to prevent waste
-Prevents injury by storing end of band
-Waterproof
-Protects band
-Handle for easy carrying

*AISI 201 stainless
-Best for street name and regulatory signing
-Corrosion resistance
-Superior strength
-Signlife performance
-Excellent tensile properties

Color Coded PVC container identifies the different widths of band

Part Number	Color	Width-inches	Thickness-inches	Weight-lbs
HPN-209	BLUE	1/2	0.030	5.1
HPN-109	GREEN	5/8	0.030	6.4
HPN-127	RED	3/4	0.030	7.7

Specify AISI 201 Stainless Steel To Insure Proper Strength

MINIMUM BREAKING STRENGTH				
	Type 201	Type 304	Type 316	Carbon Steel
Width-inches	Force	Force	Force	Force
1/2	1465	1130	1200	1125
5/8	1835	1410	1500	1405
3/4	2350	1890	1800	1690

Values shown in pounds

Chemical Composition

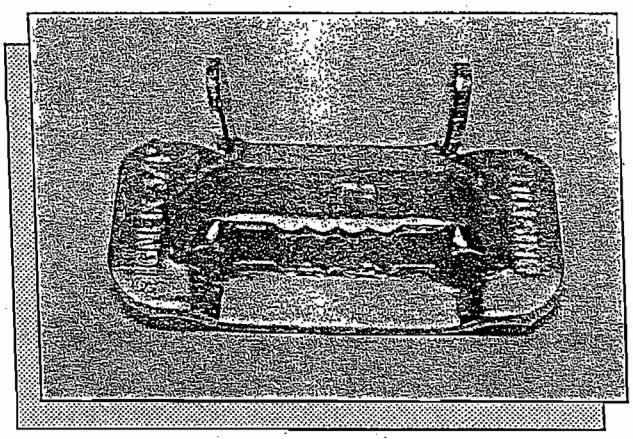
C	S	Mn	P	S	Cr	Ni	N
0.08 Max	1.0 Max	6.00 7.50	.045 Max	0.30 Max	16.0 18.0	3.5 5.0	0.25 Max

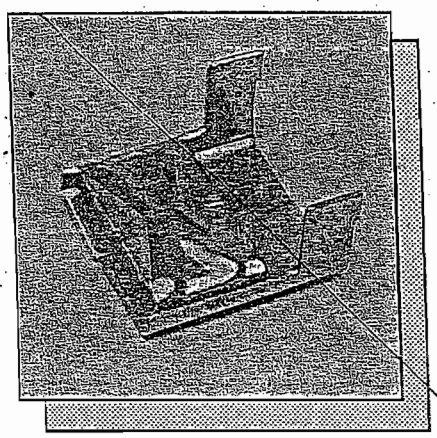
Signs hardware

REGULAR BUCKLE

*Available in widths 1/2", 5/8", 3/4"
*Type 201 stainless steel
*For use with .030" and .036" thick stainless steel band

HPN210 - 1/2"
HPN110 - 5/8"
HPN128 - 3/4"





LIGHTWEIGHT BUCKLES

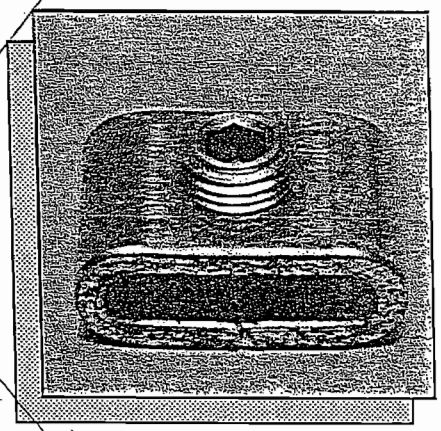
*Available in widths 3/8", 1/2", 5/8", 3/4"
*Type 201 stainless steel
*For use with .020" thick stainless steel band

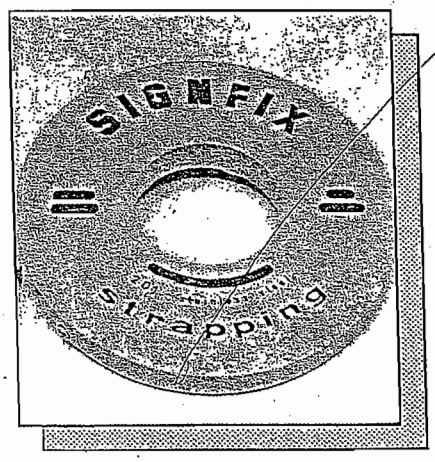
HPN205 - 3/8"
HPN206 - 1/2"
HPN207 - 5/8"
HPN208 - 3/4"

SCREW BUCKLES

*Available in 1/2" and 3/4" widths
*Type 201 stainless steel
*For use with .030" thick or thinner stainless steel

HPN211 - 1/2"
HPN212 - 3/4"





LIGHTWEIGHT BAND

*Available in widths 3/8", 1/2", 5/8", and 3/4"
*Type 201 stainless steel
*150' coils
*.020" thickness

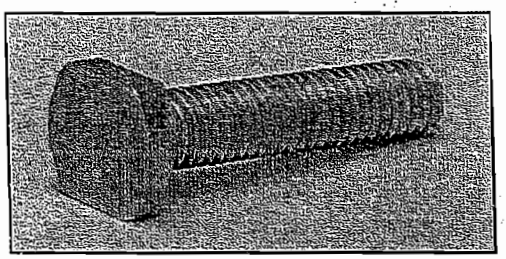
HPN066 - 3/8"
HPN067 - 1/2"
HPN068 - 5/8"
HPN069 - 3/4"

Sign hardware

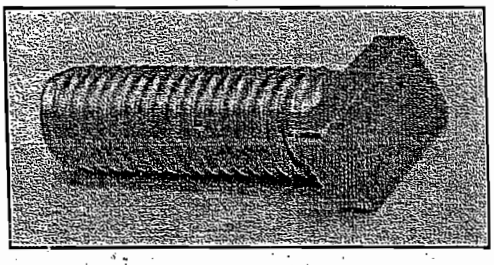
BOLTS, NUTS AND WASHERS

All of the Signfix® bolts, washers and nuts are made of AISI type A270 stainless steel. The bolts are 5/16" diameter (M8 thread) with matching nut and washer. The standard bolt is the unidirectional bolt. Twist-in bolts are designed for use with butting plates to allow for ease of assembly of separate panels. Washers are availabe as either flat washers or lock washers. Nuts are available as a standard hex nut, a nyloc (lock) nut or a vandal proof stainless steel nut.

UNIDIRECTIONAL



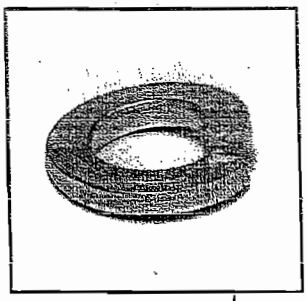
TWIST-IN



HPN111	3/4"	(19mm)
HPN058(T)	1"	(25mm)
HPN059(T)	1 1/4"	(32mm)
HPN060	1 1/2"	(38mm)
HPN061	2"	(50mm)
HPN105	2 1/2"	(65mm)
HPN106	3"	(75mm)

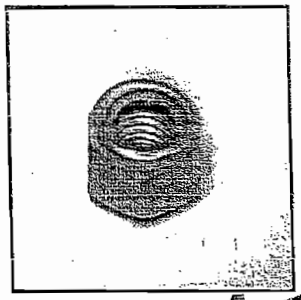
(T) denotes available in twist-in version

LOCK WASHER



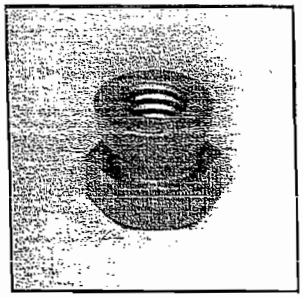
HPN253

NYLOC NUT



HPN235

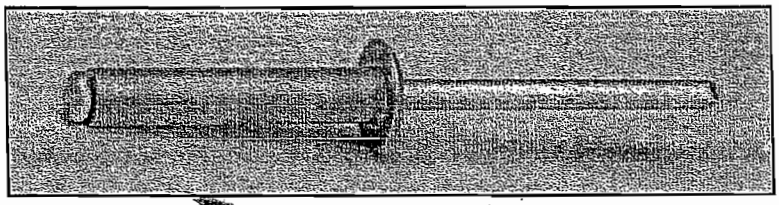
VANDAL PROOF NUT



HPN124

RIVETS

Signfix® recommends the use of aluminum body rivets with steel mandrels.



HPN073	1/2"
HPN245	3/4"
HPN120	1"

SIGNFIX®
A division of J.O. Herbert Co., Inc.
P. O. BOX 187 MIDLOTHIAN, VA 23113
INFORMATION/ORDERS: (800) 874-8395
FAX: (804) 794-0035

Distributed by:

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	TXF Concrete Mix Designs #0709 and #0728

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 311 and 312 Signal Pole Concrete Foundation (Type 30-A) and (Type 36-A)

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

1341 West Mockingbird Lane • Dallas, Texas 75247 • 972.647.6700 • www.txi.com

May 22, 2003

Durable Specialties
P.O. Box 381788
Duncanville, TX 75138

Attn: Mr. Jack Owens

RE: TxDOT Various State Projects Calender Year 2003

0709 0728

The attached concrete mix designs utilizing the appropriate ASTM C-33 or ASTM C-330 aggregate are proposed for use on the above referenced project for ready-mixed concrete to be furnished by TXI.

To ensure that the correct mix is delivered to your project, please order by the mix design number which appears in the upper left hand corner of the mix design.

TXI certifies that the above mix designs, when ordered by specified design identity, and delivered by TXI, will meet or exceed the indicated design strength at the designated age when tested in accordance with the applicable and current ASTM Standards C 31, C 39, C 78, C 172, C 293, applicable provisions of C 94, and evaluated in accordance with applicable provisions of the ACI Building Code.

TXI would like to be ineluded on your mailing list to receive all test reports. ASTM C 94 entitles a manufacturer to receive copies of all test reports when strength of concrete is used as a basis for acceptance.

Please contact us if you have any questions or require any additional information. Please notify TXI of approval of the proposed mix designs prior to their use. Failure to notify us prior to first placement shall constitute acceptance. To ensure that the proper mix designs are ordered, please send a copy of this letter, after approval, to the above referenced project to be used by the person ordering the concrete for this job.

Sincerely,

TXI Operations, LP

Victor H. Villarreal
Manager - Q.A./Q.C.

GENERAL NOTES

Pumping Notes:

1. 5" minimum diameter lines with no reduction to smaller lines.
2. Keep rubber hose to absolute minimum length and plan pipe with as few 90 degree angles as possible.
3. Samples for slump and strength tests should be taken at discharge end of hose for strength guarantee to be valid.
4. To prime pump lines, a minimum of 8.0 sack grout is recommended for lubrication. In the case of strength concrete, equivalent strength grout should be used if the grout remains in the placement.
5. Pump mixes are based on minimum cement content pumped at ground level. As pump line increases in length or height and/or layout configuration changes, mix design modifications may be required to assure strength and pumpability at additional cost to the contractor.
6. TXI cannot control, and is therefore not responsible for excessive loss of entrained air content when loss occurs as a result of boom configuration or free fall discharge from hose. To ensure minimum air loss when pumping, maintain a continuous flow of concrete through the entire length of pipe and do not subject concrete to free fall.
7. The term "pumpable concrete" refers to concrete which is capable of being transported through an apparatus which forces concrete to the placing position through a pipeline or hose as long as the recommendations indicated above are followed. The term "pumpable concrete" does not relate to concrete proportioned in a particular manner or containing a specific type of product.

We are enclosing all available back up data for the referenced mix design(s). If the strength information is not available, or is insufficient, confirmation tests may have to be conducted by your laboratory.

County: Dallas
Project: TxDOT Various Projects (2003)
Date: May 22, 2003
Design Num: 0709
Class: A

CONCRETE DESIGN WORK SHEET
(NATURAL AGGREGATES) (METRIC)

AGGREGATE CHARACTERISTICS:

		SOURCE	Specific Gravity	SSD Unit Wt. Kg / m³	% Solids	Fineness Moduls
Fine Aggregate	(FA)	TXI Bell Savoy (Wade)	2.65	1601	60.4%	2.70
Coarse Aggregate	(CA)	TXI Mill Creek (GRADE 4)	2.71	1599	59.0%	
Cement		MIDLOTHIAN TYPE I/II	3.10	3100		
Fly Ash		0	0	0		
Water		CITY	1.00			

ADMIXTURE DOSAGES

(Description)	(Amt. / Batch)	
Daratard 17 or WRDA / Hycol	1.3 to 2.6	ml / Kg
0	0	ml / Kg

AIR ENTRAINING AGENT DOSAGE

(Description)	(Amt. / Batch)	
Daravair-1000	0.3 to 1.3	ml / Kg

DESIGN FACTORS:

Cement Factor	(CF)	279 Kg / m³
Coarse Aggregate Factor	(CAF)	0.75
Water Cement Ratio	(WCR)	0.53 L / Kg
Air factor	(AF)	6.00%
Percent Fly Ash	0.00	Specific Gravity (fly ash)

BATCH FACTOR:
Size of Batch (Full Size) = 1000 L = 1.0 m³

BATCH DESIGN (ONE SACK)	VOLUMES:	Liters	VOL. TO WT. (Kg) VOL. x 1.00 x SP. GR.	1000 L BATCH WTS.	FULL SIZE BATCH FACTOR	FULL SIZE BATCH Kg / m³
1. Concrete Yield = 1000 L / m³		*1				
2. Volume CA = Yield x CAF x Solids	1000 x 0.75 x 0.59 =	442.500	x 1.00 x 2.71 =	1199.18	1.00	1199
Volume Mortar = Yield - Vol. CA	1000 - 442.5 = 557.500	*1				
4. Volume Water = WCR * CF	0.53 x 279 =	148.535 *2	x 1.00 x 1.00 =	148.5349	1.00	149
5. Volume Fly Ash = (CF/3.10) x % Fly Ash / 100	279 / 3.10 x 0.00 / 100 % Fly Ash =	0.000 *1	x 1.00 x 0 =	0	1.00	0
6. Volume Cement = (CF/3.10) - Vol. Fly Ash	89.9 - 0.000 =	89.949	x 1.00 x 3.10 =	278.84	1.00	279
7. Volume Entrained Air = Yield x AF	1000 x 6.00% =	60.000				
8. Volume Paste = Water + Fly Ash + Vol. Cement + Air	148.5 / 60 = 0.000 89.949 298.5 ***					
9. Volume FA = Vol. Mortar - Paste	557.5 - 298.5 =	259.016	x 1 x 2.65	686.39	1.00	686
						2313

10. Yield (Sumation of 2,4,5,7 & 9 to check No. 1 Above) = 1000.000

11. Fine Aggregate Factor = Vol. FA / FA Solids x Vol. Mortar = 259.016 / 60.4% x 557.500 = 0.769 Slump: 102 mm max.

* Correct for free Moisture or Absorption
** Specific Gravity of Fly Ash from Source to be Used
*** Sum of Steps 4, 5, 6 & 7

REMARKS: Volumes in Above Are Absolute Unless Otherwise Noted
Water Added at Mixer Must Include the Liquid of the Admixtures

Project : _____ Control: _____ Section: _____ Job: _____

Cement Type: _____ Source: _____ Concrete Class: A

Beam Number A& B	Date Made	Date Broken	Width	Depth	Factor	Break Pounds	Corrected Break	Avg.	Description	Inspector
67	11/4	11/11/03	5 7/8	6	1.01	665	672	705	Sidewalk, Lake St.	CWH
			6	5 7/8	1.04	710	738			
68	11/7	11/14	6	6 1/8	.96	465	446	496	Sidewalk Driveway on Ramp E/ Cherry	CWH
			6	5 7/8	1.04	525	546			
69	11/8	11/15	6	5 7/8	1.01	530	551	511	Sidewalk / Rip Rap	CWH
			6 1/8	6 1/8	.94	500	470			
70	11/11	11/18	6 1/8	6	.98	570	559	535	Sidewalk, Calhaun 17th St.	CWH
			5 7/8	6	1.01	505	510			
71	11/14	11/21	6 1/8	6	.98	435	426	430	Curb & Gutter, Leonard Lane	CWH
			5 7/8	6	1.01	430	434			
72	11/19	11/26	6 1/8	6	.98	530	519	535	Sidewalk, Rio Grande	RM
			6	6	1.0	550	550			
73	11/22	12/02	6	6 1/8	.96	480	461	471	Rip Rap E Longacre.	R
			6	6 1/8	.96	500	480			
74	11/22	12/02	6 1/8	6	.78	475	464	498	Rip Rap E Longacre	R
			6	6	1.0	530	530			
75	12/05	12/12	6 1/8	6 1/8	.94	490	461	509	Inlets C-19 & B-42 (TOPS)	CWH
			6	6 1/8	.96	580	557			
76	12/06	12/13/02	6	6	1.0	418	410	413	Inlets B-21 & B-35 (TOPS)	ACWH
			6	6	1.0	415	415			
77	12/10	12/17/02	6	6 1/8	.96	430	413	407	Drive Cherry & Henderson	ACWH
			6	6	1.0	400	400			

Project : _____ Control: _____ Section: _____ Job: _____

Cement Type: _____ Source: _____ Concrete Class: A

Beam Number A& B	Date Made	Date Broken	Width	Depth	Factor	Break Pounds	Corrected Break	Avg.	Description	Inspector
78	12/10	12/17	6	6	1.0	445	445	429	Inlets B7 & B9 TOPS	AJH
			6	6 1/8	.96	430	413			
79	12/13	12/20	6	6	1.0	465	465	458	Inlets A8, A17 & A48 (TOPS)	CWH
			6 1/8	6	.98	460	451			
80	12/13	12/20	6 1/8	6	.98	410	402	405	CURBS Inverted - Inlet	km
			6 1/8	6	.98	415	408			
81	12/16	12/23	6	6	1.0	420	420	414	Inlets A2 & A3	CWH
			6 1/8	6	.98	415	408			

County: Dallas
Project: TxDOT Various Projects (2003)
Date: May 22, 2003
Design Num: 0728
Class: C

CONCRETE DESIGN WORK SHEET
(NATURAL AGGREGATES) (METRIC)

AGGREGATE CHARACTERISTICS:

		SOURCE	Specific Gravity	SSD Unit Wt. Kg / m³	% Solids	Fineness Moduls
Fine Aggregate	(FA)	TXI Bell Savoy (Wade)	2.65	1606	60.4%	2.70
Coarse Aggregate	(CA)	TXI Mill Creek (Grade 4)	2.71	1606	59.0%	
Cement		MIDLOTHIAN TYPE I/II	3.10	1510		
Fly Ash		0	0	0		
Water		CITY	1.00			

ADMIXTURE DOSAGES

(Description)	(Amt. / Batch)	
Daratard 17 or WRDA / Hycol	1.3 to 2.6	ml / Kg

AIR ENTRAINING AGENT DOSAGE

(Description)	(Amt. / Batch)

DESIGN FACTORS:

Cement Factor	(CF)	335 Kg / m³
Coarse Aggregate Factor	(CAF)	0.71
Water Cement Ratio	(WCR)	0.44 L / Kg
Air factor	(AF)	1.00%
Percent Fly Ash	0.00	Specific Gravity (fly ash)

BATCH FACTOR:
Size of Batch (Full Size) = 1000 L = 1.0 m³

BATCH DESIGN (ONE SACK)	VOLUMES:	Liters	VOL. TO WT. (Kg) VOL. x 1.00 x SP. GR.	1000 L BATCH WTS.	FULL SIZE BATCH FACTOR	FULL SIZE BATCH Kg / m³
1. Concrete Yield = $\frac{L}{m^3}$	$\frac{1000}{}$	*1				
2. Volume CA = Yield x CAF x Solids	1000 x 0.71 x 0.59 =	418.900	x 1.00 x 2.71 =	1135.22	1.00	1135
3. Volume Mortar = Yield - Vol. CA	1000 - 418.9 = 581.100	*1				
4. Volume Water = WCR * CF	0.44 x 335 =	148.535 *2	x 1.00 x 1.00 =	148.5349	1.00	149
5. Volume Fly Ash = $\frac{(CF/3.10) \times \% \text{ Fly Ash}}{100}$	$\frac{335}{3.10} \times \frac{0.00}{100}$ % Fly Ash =	0.000 *1	x 1.00 x 0 =	0	1.00	0
6. Volume Cement = (CF/3.10) - Vol. Fly Ash	107.9 - 0.000 =	107.939	x 1.00 x 3.10 =	334.61	1.00	335
7. Volume Entrained Air = Yield x AF	1000 x 1.00% =	10.000				
8. Volume Paste = Water + Fly Ash + Vol. Cement + Air	148.5 0.000 107.939 10 = 266.5 ***					
9. Volume FA = Vol. Mortar - Paste	581.1 - 266.5 =	314.626	x 1 x 2.65	833.76	1.00	834
						2452
10. Yield (Sumation of 2,4,5,7 & 9 to check No. 1 Above)	=	1000.000				

11. Fine Aggregate Factor = $\frac{\text{Vol. FA}}{\text{FA Solids x Vol. Mortar}} = \frac{314.626}{60.4\% \times 581.100} = 0.896$ Slump: 102 mm max.

* Correct for free Moisture or Absorption
** Specific Gravity of Fly Ash from Source to be Used
*** Sum of Steps 4, 5, 6 & 7

REMARKS: Volumes in Above Are Absolute Unless Otherwise Noted
Water Added at Mixer Must Include the Liquid of the Admixtures

1341 West Mockingbird Lane • Dallas, Texas 75247 • 972.647.6700 • www.txi.com

MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTITY

Name
TXI OPERATIONS, LP

Address
1341 MOCKINGBIRD LANE, DALLAS, TEXAS 75247

Emergency Telephone Number
(972) 647-6700

Person Responsible for Preparation
NANCY GARNETT

Date
NOVEMBER 1998

Common Name (used on label)
CTB OR READY-MIX

Chemical Family
DOES NOT APPLY

Chemical Name
DOES NOT APPLY

Formula
MIXTURE OF PORTLAND CEMENT, WATER, AGGREGATE AND/OR SAND

Trade Name & Synonyms
CEMENT TREATED BASE (CTB), READY-MIX, CONCRETE MIX, WET CONCRETE, CEMSAND STABILIZING SAND

SECTION 2 – HAZARDOUS INGREDIENTS

Hazardous Component	CAS #	% Typical	TLV (Units)	PEL (Units)
AGGREGATE/SAND:				
QUARTZ	14808-60-7	*	0.1 mg/m³**	0.1 mg/m³**
CRISTOBALITE	14464-46-1	*	0.05 mg/m³**	0.05 mg/m³**
PORTLAND CEMENT	65997-15-1	*	10 mg/m³	15 mg/m³ (total dust) 5 mg/m³**

*Varies depending on product **Respirable fraction

PEL: Permissible Exposure Limit established by the Occupational Safety and Health Administration (OSHA).
TLV: Threshold Limit Value established by the American Conference of Governmental Industrial Hygienists (ACGIH).

SECTION 3 – PHYSICAL DATA

Boiling Point
DOES NOT APPLY

Specific Gravity (H_2O = 1)
APPROXIMATELY 2.4

Vapor Pressure (mm = Hg)
DOES NOT APPLY

Percent Volatile by Volume
0%

Vapor Density (Air = 1)
DOES NOT APPLY

Evaporation Rate (n=Butyl Acetate)
DOES NOT APPLY

Percent Soluble in Water
SLIGHT (0.1 - 1.0%)

Reactivity in Water
WILL NOT EVOLVE FLAMMABLE OR TOXIC GASES

Appearance and Odor
GRAY, MUD-LIKE, VISCOUS SUBSTANCE. NO ODOR

Hazardous Material Information System Identifier (HMIS)
HEALTH = 2* FLAMMABILITY = 0 REACTIVITY = 1 PERSONAL PROTECTION = X

SECTION 4 – FIRE AND EXPLOSION DATA

Flash Point
WILL NOT IGNITE

Flammable Limits in Air (% by Volume)
Lower: DOES NOT APPLY Upper: DOES NOT APPLY

Extinguishing Media
DOES NOT APPLY

Auto Ignition Temperature
DOES NOT APPLY

Unusual Fire and Explosion Hazards
NONE

Special Fire Fighting Procedures
NONE

SECTION 5 - HEALTH INFORMATION

Signs and Symptoms of Exposure - (1) Acute Overexposure

CONTACT WITH THE SKIN OR EYES MAY RESULT IN IRRITATION AND/OR ALKALI BURNS.

Signs and Symptoms of Exposure - (2) Chronic Overexposure

NONE DETERMINED FROM TYPICAL EXPOSURE TO PRODUCT. EXCESSIVE EXPOSURE BY INHALATION TO CONCRETE WHICH IS BEING SAWED, OR OTHERWISE CAUSED TO EMIT PARTICULATES, OVER AN EXTENDED PERIOD OF TIME MAY RESULT IN THE DEVELOPMENT OF PULMONARY DISEASES INCLUDING PNEUMOCONIOSIS AND SILICOSIS, DUE TO THE PRESENCE OF CRYSTALLINE SILICA. OVER TIME, EXPOSURE TO CRYSTALLINE SILICA COULD EVENTUALLY LEAD TO LUNG CANCER.

Medical Conditions Generally Aggravated by Exposure

DERMATITIS OR OTHER SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE.

Chemical/Component Listed as Carcinogen	NTP	IARC	OSHA
QUARTZ, CRISTOBALITE	YES	YES	NO

Other Exposure Limits

NONE

Emergency & First Aide Procedures for Indicated Routes of Entry

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN.
SKIN CONTACT: IMMEDIATELY WASH SKIN THOROUGHLY WITH SOAP AND WATER.

SECTION 6 - REACTIVITY DATA

Stability — Conditions to Avoid

STABLE — DOES NOT APPLY

Incompatibility (Materials to Avoid)

MATERIAL IS HIGHLY ALKALINE. CONTACT WITH ACIDS MAY PRODUCE A VIOLENT, EXOTHERMIC REACTION AND MAY EVOLVE TOXIC GASES OR VAPORS, DEPENDING UPON THE ACID INVOLVED.

Hazardous Decomposition or Combustion Products

DOES NOT APPLY

Hazardous Polymerization — Conditions to Avoid

WILL NOT OCCUR — DOES NOT APPLY

SECTION 7 - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Leaked or Spilled

CLEAN-UP OF SPILLS MAY REQUIRE PERSONAL PROTECTIVE EQUIPMENT TO PREVENT DUST EXPOSURES AND PROTECT AGAINST ALKALI BURNS OR IRRITATION. SEE SECTION 8.

Waste Disposal Method

IF THIS MATERIAL, AS PACKAGED, BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA FOR A HAZARDOUS WASTE AS DEFINED BY THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE AUTHORITY OF THE RESOURCE CONSERVATION AND RECOVERY ACT (40CFR261). DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION 8 - PERSONAL PROTECTION INFORMATION

Respiratory Protection

NOT NECESSARY UNDER CONDITIONS OF NORMAL USE. IF MATERIAL IS DRIED AND IS SUBJECT TO CONDITIONS CAUSING DUST TO BE EMITTED, USE NIOSH/MSHA APPROVED RESPIRATORS FOR PROTECTION AGAINST CRYSTALLINE SILICA AND NUISANCE DUSTS.

Ventilation

NOT NECESSARY UNDER CONDITIONS OF NORMAL USE.

Protective Gloves — Eye Protection

RUBBER, PVC, NEOPRENE OR OTHER IMPERVIOUS MATERIAL. — GOGGLES

Other Protective Clothing or Equipment

RUBBER HIGH TOP BOOTS, ARM SLEEVES AND APRONS MAY BE USED, WHEN NECESSARY, TO PREVENT SKIN CONTACT.

SECTION 9 - SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

SHOULD BE STORED IN A MANNER TO PREVENT CONTACT WITH STRONG ACIDS.

Other Precautions

NONE

TXI015

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access-Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	Signal Head
1	Red, Yellow Green, Green Arrow LED's
1	Fiberoptic, 2 Color, 12" Turn Arrow

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 313 314 and 315 12"-3 Section LED Signal Head (Type V3); 12"-4 Section LED Signal Head (Type V4LT); 12"-4 Section LED Signal Head (Type V4LT-BM)

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

12-Inch Traffic Signal

Polycarbonate

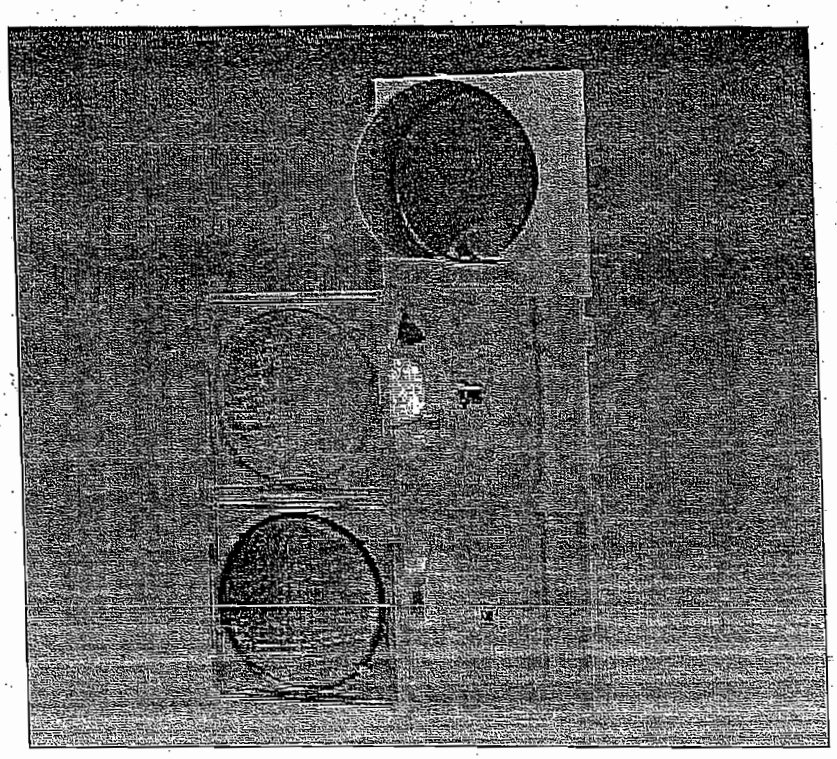
The 12-inch Polycarbonate

Traffic Signal is interchangeable

with incandescent assemblies

or LED modules and allows for

a 180° door opening



Features

- Tested to ITE required wind loading on single point attachment
- Reversible door - left side standard; right side optional
- Doors equipped with two latches
- FASTON tab terminal block
- Provisions for one, five-position and one six-position terminal block in each housing
- EPDM or optional red silicone lens gasketing
- Aluminum or plastic reflector ring with spun ALZAK reflector
- Optional hydroformed reflector

General

Each traffic signal consists of a number of identical signal sections rigidly fastened together to present a continuous, pleasing appearance. Each section shall have a separate and complete housing. The traffic signal shall meet or exceed the equipment standard of the Institute of Transportation Engineers' (ITE) latest revision.

Housing

The housing of each section shall be a one piece molded ultraviolet and heat stabilized polycarbonate unit. Two integral hinge/screw lugs shall be molded into each side of the housing. Through a symmetrical concept each shall be capable of providing either right- or left-hand door opening. Left hinged is standard; right hinged is optional and must be specified. The top and bottom of the housing shall have an opening to accommodate standard 1 1/2 inch pipe brackets. Each signal section shall be rigidly attached, one above the other, by means of corrosion resistant bolts and attaching washers in such a manner that any section may be rotated about a vertical axis and oriented with respect to an adjacent section. An alternate means for attaching sections together shall be available. It shall consist of four matching punch-out locations, top and bottom of each section, to allow the sections to be bolted with four 1" x 10-32 corrosion resistant screws. The top and bottom of the signal housing shall have a Shurlock boss

3360 E. La Palma, Anaheim, CA 92806-2856
Tel: (714) 630-3700 • Fax: (714) 630-6349
Email: sales@econolite.com
Web site: http://www.econolite.com

ECONOLITE
CONTROL PRODUCTS, INC.

integrally cast into the housing. The radial angular grooves of the Shurlock boss, when used with Shurlock fittings, shall provide positive 5 (five) degree increment positioning of the entire signal head to eliminate rotation or misalignment of the signal. Each housing shall have molded bosses for 1(one) five and 1 (one) six position terminal block. The back of each housing shall have the manufacturer's name clearly displayed. Each housing shall have provisions for easily adding a back plate. Hinge pins, door latching hardware, visor, backplate, and lens clip screws shall be high quality stainless steel.

Housing Door

The housing door of each section shall be a one-piece molded ultraviolet and heat stabilized polycarbonate unit. Two hinge lugs shall be molded into one side and two latch jaws shall be molded on the other side.

The door shall be attached to the housing by means of two stainless steel hinge pins. Two stainless steel "eye" bolts and wing nuts on one side of the door shall provide for opening and closing the signal door without the use of any special tools. A gasket groove on the inside of the door shall accommodate a weatherproof and mildew-proof resilient gasket which, when the door is closed, shall seal flat against the housing, making a positive seal.

The outer face of the door shall have four metal threaded inserts equally spaced about the circumference of the lens opening, with four screws to accommodate the signal head visors. The door and visor shall overlap to prevent light escaping between visor and door.

Optical System

Lens - The prismed traffic signal lens shall be standard red, yellow, or green and shall conform to the latest revision of the ITE standard specifications. The lens shall fit into a specially designed, slotted, extruded, and bonded full-circle lens gasket designed to fit the housing door in such a manner so as to exclude moisture, dust, and road film. The lens and gasket shall be secured to the door with four aluminum lens clips and stainless steel screws. The lenses shall be polycarbonate, glass, or LED, as specified.

Reflector - The reflector assembly shall consist of a glass filled polycarbonate or aluminum reflector ring and spun ALZAK aluminum reflector (or optional unitized hydroformed ALZAK aluminum reflector). The assembly shall be pivoted in the signal housing on two molded in polycarbonate tension supports in such a manner that it can be easily swung open for servicing the unit. The entire assembly shall be easily removed for maintenance or service without the use of any tools.

Lamp Receptacle - The prefocused, molded phenolic lamp receptacle shall be equipped with a lamp grip to prevent the lamp working loose due to vibration. The receptacle shall be able to be rotated to allow proper orientation of lamp filament.

Bail - The bail shall be a corrosion resistant piano wire assembly that secures and orients the socket to the reflector.

Wiring

Each receptacle shall be provided with two leads with FASTON type terminals. Wires shall be color coded per customers specifications.

Lamp receptacle conductors shall be No. 18 AWG, or larger, 600-volt appliance wiring material, which conforms to Military Specification MIL-W-16878 D, Type B, with a vinyl nylon jacket rated 115 degrees Centigrade.

Terminal Block

Each complete signal head shall be provided with a terminal block. The terminal block shall be placed in the bottom section unless otherwise specified. The terminal block for a standard three-section head shall be a five-position, ten terminal, barrier type strip. (a six-position terminal block could be used for a five section head). To one side of each FASTON terminal strip shall be attached the AC common, red, yellow, and green signal section leads, leaving the opposite screw-clamp terminal for field wires.

Visors

Visors shall be tunnel, full circle or cap, and a minimum of 10 inches long. Visors shall be molded from ultraviolet and heat stabilized polycarbonate. They shall have attaching tabs to facilitate installation.

Color

The housing and door shall be molded of one color polycarbonate material throughout. The inside of yellow visors shall be painted dull black. The stainless steel parts shall not be painted.

Standard colors are:

Dark Olive Green - shall match Federal Standard 595a-14056

Yellow - shall match Federal Standard 595a-13538

Dull Black - shall match Federal Standard 595a-37038

Technical Information	
Dimensions	14" H x 13 ¼" W x 7 ¾" D
Weight (typical)	
Poly Lens	5.36 lbs. (less visor)
Glass Lens	6.92 lbs. (less visor)

Distributed By:
PARADIGM Traffic Systems, Inc.
P. O. Box 14509
Fort Worth, TX 76117-0509
817-831-9406 fx: 817-831-9407

ECONOLITE CONTROL PRODUCTS, INC.
3360 E. La Palma, Anaheim, CA 92806-2856 ■ P. O. Box 6150, Anaheim, CA 92816-0150
Tel: (714) 630-3700 ■ Fax: (714) 630-6349 ■ Email: sales@econolite.com ■ www.econolite.com

010509 80-10261M-00

Texas Department of Transportation

General Services Division
PREQUALIFIED PRODUCT LIST (QPL) FOR TO-7057-S
300 MM LED TRAFFIC SIGNAL LAMP UNIT
Mast Arm or Span Wire Mount

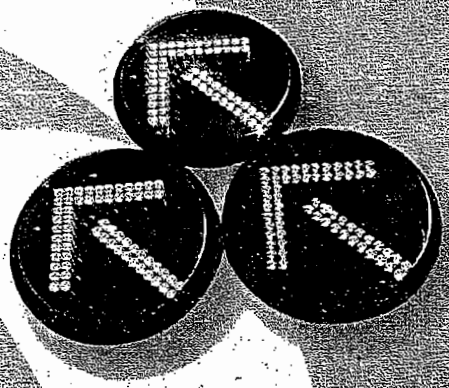
The following traffic signal, lamp units have been tested and are qualified for use when TxDOT Special Specification TO-7057-S 300 MM LED Traffic Signal Lamp Unit for Mast Arm or Span Wire Mount (rev. 2/15/2002) is referenced.

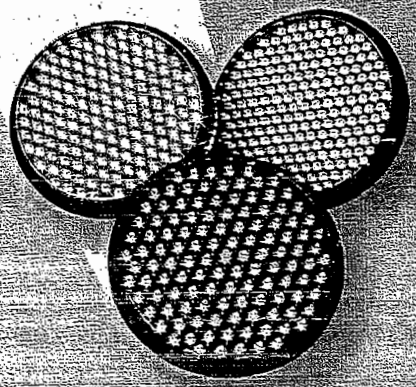
Manufacturer	Color/Type	Brand Name/Model Number
CooperLighting	Red	CLB 12RAS-EV(FB)005
	Yellow	CLB 12YAS-EV(FB)005
	Green	CLB 12GAS-EV(FB)005
	Red Arrow	CLA 12RAS-EV(FB)005
	Yellow Arrow	CLA 12YAS-EV(FB)005
	Green Arrow	CLA 12GAS-EV(FB)005
Dialight	Red	434-1210-001, 434-1210-801
	Yellow	434-3230-001, 434-3230-801
	Green	434-2270-001, 434-2270-801
	Red Arrow	430-1314-807, 430-1314-808
	Yellow Arrow	430-3334-803, 430-3334-805
	Green Arrow	430-2374-804, 430-2374-805
Duralight	Red	JXC-300VIR
	Yellow	JXC-300VIY
	Green	JXC-300VIG
	Yellow Arrow	JXJ-300VII
	Green Arrow	JXJ-300VIG
GELcore	Red	DR6-RTFB-01A-31
	Yellow	DR6-YTFB-01A-31
	Green	DR6-GCFB-01A-31
	Red Arrow	DR6-RTA3-01A-31
	Yellow Arrow	DR6-YTA3-01A-31
	Green Arrow	DR6-GCA3-01A-31

DURALIGHT™

JXC-300 VI Series LED Traffic Signal Lamps

Certified by **ISO9001** International Quality Assurance System





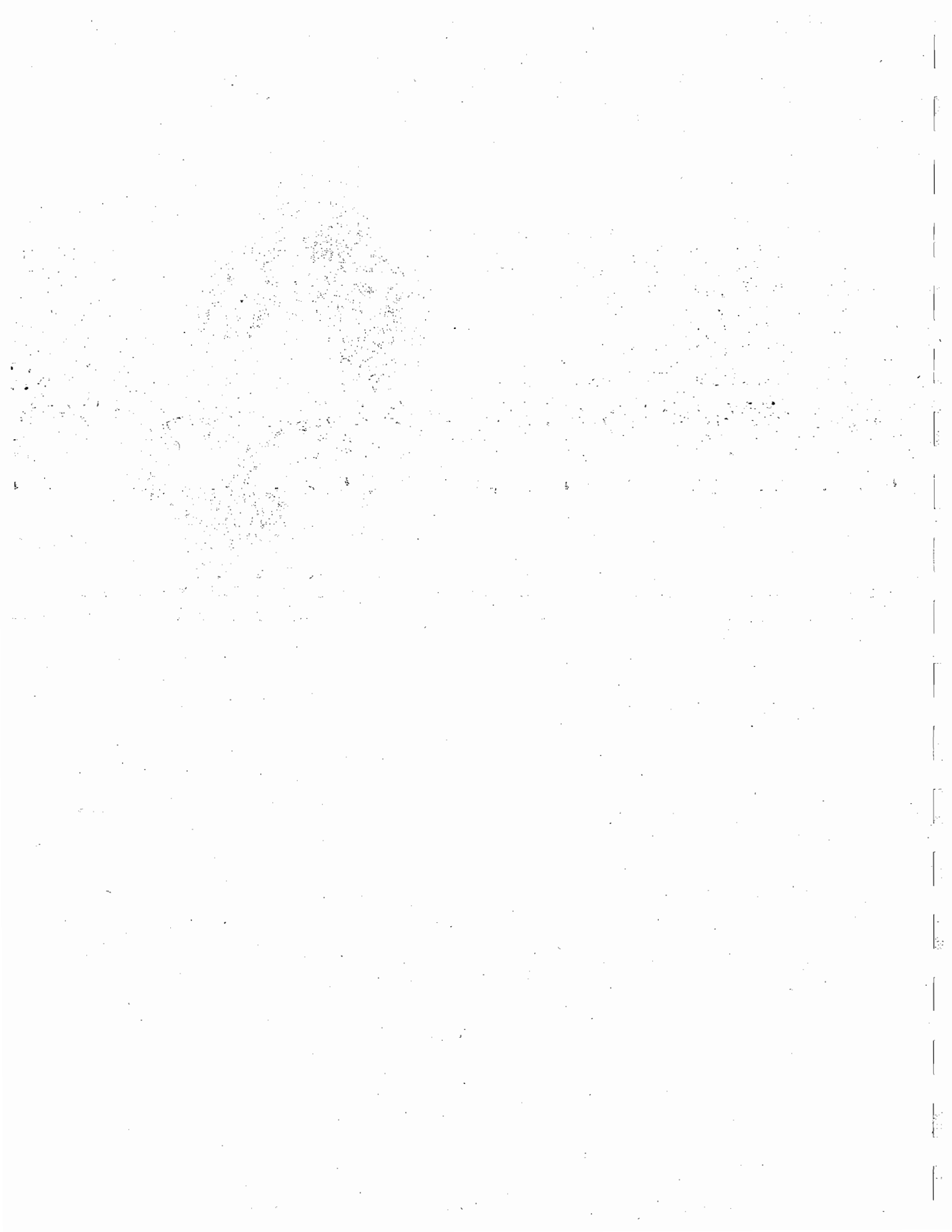
Main Features:

- Conform to ITE specifications
- Low power consumption
- Long operating lifetime LEDs
- Retrofit design & UV stabilized shell
- Wide viewing angles
- Even brightness & standard chromatogram
- Less than 1% light loss with single LED failure

Product Characteristics:

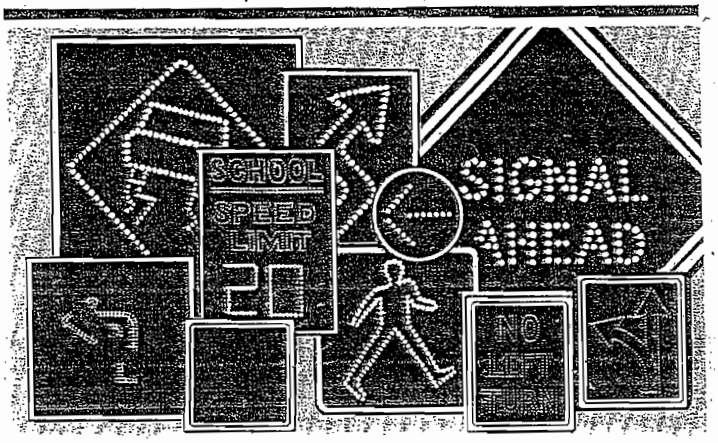
Model Number	Size (mm)	Color	Voltage (Typical)	Voltage Range	Power(W) Typical	Operation Temperature	Power Factor	T.H.D	ITE Specs.
JXC-300VIR	300	Red(626)	120V-60Hz	80V-135V	10.5	-40°F - +165°F	>0.9	<20%	Yes
JXC-300VIY	300	Yellow(592)	120V-60Hz	80V-135V	18	-40°F - +165°F	>0.9	<20%	Yes
JXC-300VIG	300	Green(505)	120V-60Hz	80V-135V	13.5	-40°F - +165°F	>0.9	<20%	Yes
JXJ-300VIR	300	Red(626)	120V-60Hz	80V-135V	7.5	-40°F - +165°F	>0.9	<20%	Yes
JXJ-300VIY	300	Yellow(592)	120V-60Hz	80V-135V	7.5	-40°F - +165°F	>0.9	<20%	Yes
JXJ-300VIG	300	Green(505)	120V-60Hz	80V-135V	7.5	-40°F - +165°F	>0.9	<20%	Yes

TraStar,Inc.
Tel:(469)867-0788
Fax:(214)473-8880
Add:P.O.Box 251752
Plano,TX 75025
Email:ptian@attbi.com



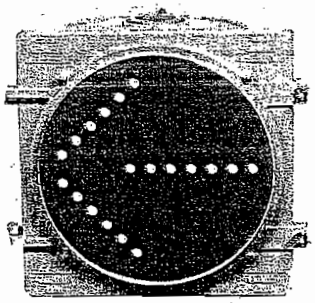
Fiberoptic Traffic Signals

FIBEROPTIC SIGNALS / THE CLEAR CHOICE



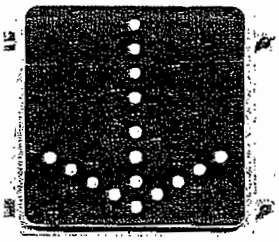
> Intersection Control
> Major Highways
> Pedestrian Controls
> Tunnels
> Overpasses
> Toll Booths
> Harbors
> Weigh Stations
> Bridges

Fiberoptic, 2 Color, 12" Turn Arrow



> Exceeds all ITE Standards
> Model TA-2120LK Overhead Left Kit
> Model TA-212ORK Overhead Right Kit
> Model TA-212PK Post Mount Kit
> Model TA-212WAK Wide Angle Kit (68 degree viewing)

Fiberoptic, 12" Lane Control



> Also available in 18" and 24" versions
> Exceeds all ITE Standards
> Model LC-112XK Red "X" Kit
> Model LC-112AK Green Arrow Kit
> Model LC-212XAK Red "X" and Green Arrow Kit
> Model LC-312XXAH Red "X", Yellow "X" and Green Arrow Kit
> All models are available with a wider viewing angle of 68 degrees

Consolidated Traffic Controls, Inc.
for ordering and information call toll free **(800) 448-8841**
D/FW Area (817) 265-3421 * **FAX (800) 448-8850**

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	Backplates

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 316, 317 Vacuum Formed Backplate (3 Sec)(12 in) and (4 Sec)(12 in)

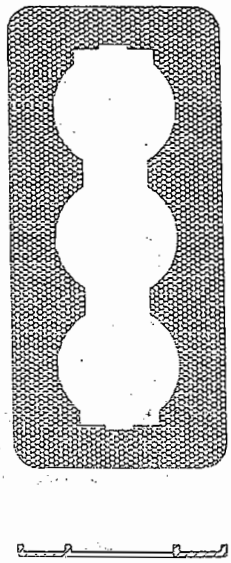
COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

PLASTIC BACKPLATES

PELCO PRODUCTS, INC.



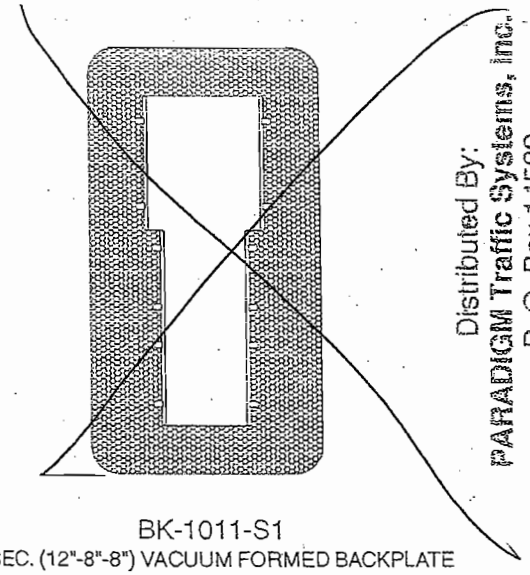
BK-1003-L1
3-SEC. VACUUM FORMED BACKPLATE
FOR ECONOLITE OLD STYLE ALUM. SIGNAL

STRAIGHT BACKPLATES

SIGNAL SIZE	NO. OF SECTIONS	VACUUM FORMED .125" ABS	FLAT .156" ABS	FLAT .0937" POLYCARBONATE
8"	1	BK-1012-	BK-2001-	BK-3001-
8"	2	-	BK-2002-	BK-3002-
8"	3	BK-1006-	BK-2003-	BK-3003-
8"	4	-	BK-2004-	BK-3004-
8"	5	-	BK-2005-	BK-3005-
12"	1	BK-1001-	BK-2006-	BK-3006-
12"	2	BK-1002-	BK-2007-	BK-3007-
12"	3	BK-1003-	BK-2008-	BK-3008-
12"	4	BK-1004-	BK-2009-	BK-3009-
12"	5	BK-1005-	BK-2010-	BK-3010-

COMBINATION BACKPLATES

SIGNAL SIZE	NO. OF SECTIONS	VACUUM FORMED .125" ABS	FLAT .156" ABS
12"-8"-8"	3	BK-1011-	BK-2012-
12"-8"-8"-8"	4	-	BK-2013-
12"-12"-8"-8"	4	-	BK-2014-
12"-12"-8"-8"-8"	5	BK-1014-	-



BK-1011-S1
3-SEC. (12"-8"-8") VACUUM FORMED BACKPLATE
FOR SAFETRAN ALUM. SIGNAL

NOTE:

1. PLEASE SPECIFY SUFFIX FOR REQUIRED BACKPLATE. SEE SIGNAL MANUFATURERS LEGEND BELOW.
2. ANY COMBINATION OF BACKPLATES FOR SIGNAL HEADS ARE AVAILABLE. ASK FOR QUOTATIONS FOR COMBINATIONS NOT LISTED.

VACUUM FORMED:

1. 5/8" FLANGE ON ALL SIDES GIVING MUCH GREATER RIGIDITY AND STRUCTURAL INTEGRITY.
2. DESIGNED TO FIT PRECISELY EACH MANUFACTURERS SIGNAL HEAD.
3. FABRICATED FROM BLACK UV STABILIZED PLASTIC SHEET WITH HAIR CELL FINISH ON FRONT SIDE AND SMOOTH FINISH ON BACK SIDE.
4. 3" RADIUS ON ALL CORNERS.
5. PROVIDED WITH NECESSARY HARDWARE TO ATTACH TO SIGNAL HEAD.

SIGNAL MANUFACTURER LEGEND	
EAGLE SIG / AUTOMATIC (poly)	A
TCT	C
EAGLE SA (poly)	E
ECONOLITE (old alum)	L1
ECONOLITE (poly) (new)	L2
ECONOLITE (new alum)	L3
TRAFCON	T
SAFETRAN (alum)	S1
SAFETRAN (poly)	S2
3M	M
EAGLE / MARK IV (alum)	F
McCAIN	N

320 S.W. 18th St. • Edmond, Oklahoma 73013 • (405) 340-3434 • FAX: (405) 340-3435 • E-mail: pelco@pelcoinc.com

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	Astro-Brac

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 318 and 319 3 and 4 Section Astro Brac w/29" Bands

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

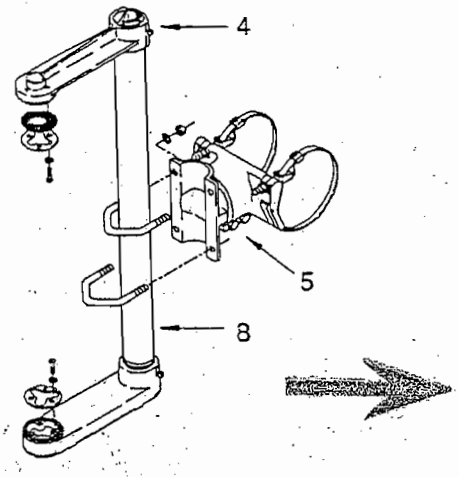
PELCO PRODUCTS, INC.

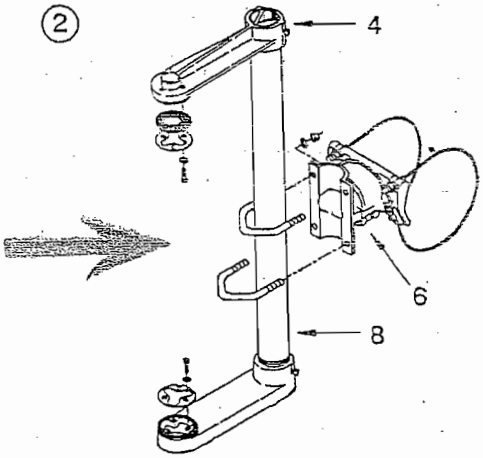
Astro-Brac®

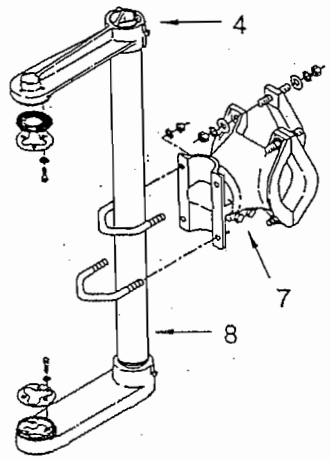
ONE-WAY BRACKET ASSEMBLIES

The Astro-Brac in its various configurations is a truly universal system for mounting signals.

The Astro-Brac is designed to facilitate the mounting of any size or combination of signals to any size and shape of mast arm or pole. This complete adjustability is not possible with other types of rigid mountings.

① 

② 

③ 

ITEM	DESCRIPTION	PART NO.
①	STANDARD BAND BRACKET ASSEMBLY	AB-0116-L-L
②	CABLE MOUNT BRACKET ASSEMBLY	AB-0125-L-L
③	TENON MOUNT BRACKET ASSEMBLY	AB-0137-L
4	ARM KIT, Standard 9"	AB-4000
5	CLAMP KIT, Band Mount	AB-3004-L
6	CLAMP KIT, Cable Mount	AB-3009-L
7	CLAMP KIT, Tenon Mount	AB-3010
8	GUSSETED TUBE w/ Vinyl Insert	AB-2003-L

NOTES:

1. PLEASE SPECIFY TUBE SECTION & BAND OR CABLE LENGTH REQUIRED, i.e., AB-0116-3-29 FOR A STANDARD 1-WAY 3 SECTION ASSEMBLY W/ 29" BANDS.
2. SEE ASTRO-BRAC CLAMP KIT BULLETINS FOR BAND & CABLE LENGTHS AVAILABLE.
3. SEE ASTRO-BRAC TUBE BULLETIN FOR TUBE LENGTHS.

320 S.W. 18th St. • Edmond, Oklahoma 73013 • (405) 340-3434 • FAX: (405) 340-3435

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access-Phase II
LOCATION: Inwood Connection
JOB NO: DSI#323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	Pedestrian Head
1	Clamshell mount
1	mounting materials
1	LED

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☑ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 320 Pedestrian LED Signal Head with Count-Down Timer

COPIES TO:

Sincerely,

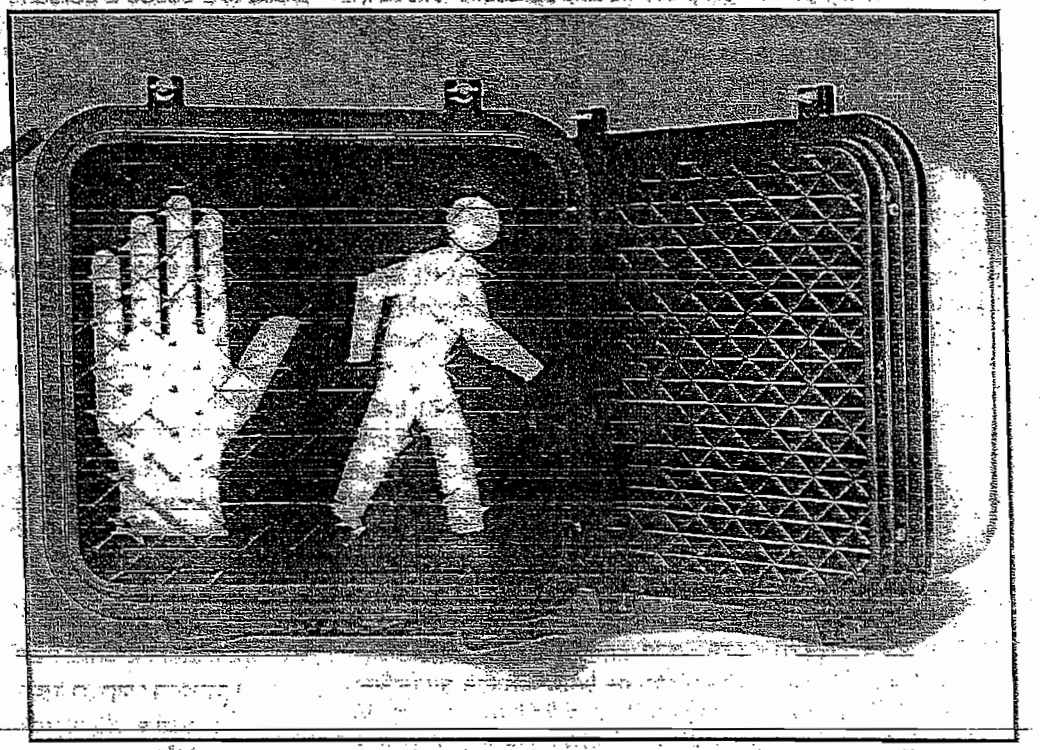
Jack Owen
Project Coorddinator

U.S. Traffic Corporation

Manufacturers & System Engineers

Model 7090

Incandescent Pedestrian Signal



Features & Benefits

- Certified ITE Color and Intensity
- Bright, Crisp Blankout Message
- 11" High Symbol...exceeds FHWA Minimum Message Size
- Z-CRATE Visor Virtually Eliminates Sun-Phantom
- Vandal-Resistant Construction

When you first look at a Model 7090, you see a sign of experience — it comes from IDC Indicator Control's more than 25 years of building pedestrian signals. Look even closer, and you'll find signs of quality and durability that have made it our most popular signal ever. . .

- Like the *bright, crisp message*, perfected over years through innovative design and manufacturing techniques.
- The *rugged Z-CRATE sun visor* that virtually eliminates sun-phantom.
- And there's our *patented clamshell mount*, which makes installing the 7090 a quick, clean process. (Once it's installed, there are features to ensure it lasts for many years to come.)

So when you're looking for an incandescent pedestrian signal, look for signs of experience. You'll find them at IDC!

IDC Indicator Controls™

TRAFFIC CONTROL SYSTEMS SECTION MEMBER ite

9/29/99

Specifications

General:

The subject pedestrian signal shall be designed to fit the same mounting brackets employed by California type A, B, C and G Pedestrian Signals. Furthermore, construction design shall be compatible with Clamshell mounting hardware.

The general construction shall include a single piece cast aluminum housing, a single piece double parabolic reflector, a two symbol two color message lens, a single piece cast aluminum swing down door frame, a blankout Z-CRATE sun visor, two A21 long life traffic signal lamps, and appropriate sockets and other hardware. The design shall optimize performance per unit of energy consumed and shall accommodate 60, 67, 69 and 116 watt lamps.

Optically, the subject pedestrian signal shall be capable of displaying, brightly and uniformly, the alternate symbol messages, "HAND" in portland orange and "WALKING PERSON" in white. When subjected to strong ambient light conditions, the messages shall "blankout" when the signal is not energized.

The signal shall be furnished complete with two A21 traffic signal lamps installed. In order to facilitate installation and maintenance, the signal shall be designed so that all components are readily accessible from the front by merely opening the signal door.

Dimensions and Weight:

The maximum overall dimension of the signal shall be 16.5" W x 18.75" H x 9" D (470 x 476 x 229 mm), including the Z-CRATE sun visor and hinges. The distance between the mounting surfaces of the upper (non-shurlock) and the lower (shurlock) openings shall be 15.75" (400 mm). On models with shurlock on top and bottom, the distance between openings shall be 16" (406 mm).

The weight of the signal, excluding mounting hardware, shall be 21 pounds (9.53 kg) maximum.

Messages:

Message configuration shall be the "HAND" symbol internally illuminated with a portland orange color source on the left half of the MBS (message bearing surface) and a "WALKING PERSON" symbol internally illuminated with an incandescent white color source on the right half of the MBS.

The "HAND" and "WALKING PERSON" symbols shall each be a minimum of 11" (279 mm) in height and 7" (178 mm) in width. Message configuration, color and size shall be Class 3 as defined by the I.T.E. Equipment Standard "Pedestrian Traffic Signal Control Signal Indications" dated March 1985. Internal illumination shall be provided by an incandescent lamp and a colored lens.

Optical System:

The optical system shall be designed so as to minimize the return of the outside rays entering the unit from above horizontal (known as sun phantom). The optical system shall consist of:

a.) two symbol two color message lens
b.) double parabolic reflector
c.) lamps and lamp sockets
d.) Z-CRATE type sun visor

The inside face of each message section shall be silkscreened with a transparent coating of an appropriate color in the symbol areas to produce a portland orange "HAND" symbol and an incandescent white "WALKING PERSON" symbol when illuminated by a clear A21 traffic signal lamp operating at rated voltage. The entire background shall be a fired ceramic mask, black in color.

Double Parabolic Reflector:

A single piece double parabolic reflector shall be vacuum formed from 0.250" (6 mm) minimum thickness textured polycarbonate plastic. The texture shall be on the bulb side of the reflector and shall conform to C-64 or C-66 pattern or equivalent for light uniformity.

The lamp side of the reflector shall be reflectorized by vacuum deposition of an aluminum coating which shall in turn be protected by a hard wear resistant coating.

The two sections of the reflector shall be divided by a full depth 0.040 aluminum divider that properly mates with the message lens to effectively prevent light spillage from one section to the other.

Message Lens:

Two lens materials shall be available as follows:

a.) STANDARD: 0.187" (5 mm) tempered glass with the outside surface textured to eliminate message " hot spots".
b.) OPTIONAL: 0.250" (6 mm) polycarbonate plastic with C-64 or C-66 pattern texture on the outside surface to eliminate message "hot spots".

The lens shall be located at least 1.75" (445 mm) away from the closest glass envelope extremity of the ANSI Designation A21 traffic signal lamp.

The inside of the lens shall be fitted with a one piece EPDM neoprene gasket fitted around the perimeter such that a weatherproof seal is afforded whenever the reflector, lens, door frame, and case are properly mated.

Lamps and Lamp Sockets:

The pedestrian signal shall be completely equipped with traffic signal lamps and sockets (one set for each section of the double parabolic reflector). Each lamp shall be V-beam, clear, group replacement A21, 8000 hour rated life, horizontal with medium base. Each lamp socket shall be accurately positioned so as to be centered and prefocused in its respective section of the reflector when the above described lamps are installed.

Mounting shall be to an aluminum plate so as to efficiently conduct heat away from the socket.

The lamp socket may be made of molded Bakelite, molded phenolic, or ceramic and shall be provided with a brass screw shell with lamp grip.

Each lamp socket shall be provided with one colored lead (non-white and non-green) from the socket and one white lead from the shell. Leads shall be 18 AWG and shall be wired to respective terminals of a three terminal pair screw-type terminal block. The two white wires shall be connected to a common terminal. The terminal block shall be located inside the pedestrian signal housing.

Z-CRATE Visor:
Each signal shall be provided with a Z-CRATE type visor designed to eliminate sun phantom.

The Z-CRATE type visor shall be installed parallel to the face of the "HAND/WALKING PERSON" symbol. The Z-CRATE visor assembly shall be held in place by the use of stainless steel screws or lens clips.

The Z-CRATE assembly shall consist of a minimum of 20 straight horizontal louvers and 21 zig-zag pattern horizontal louvers.

Every other formed louver shall be reversed so as to form cells 1" (25 mm) square but rotated 45 degrees from horizontal to provide diamond shaped cells. Each diamond shall then be bisected by a straight louver inserted between each pair of formed zig-zag louvers.

The basic material used in construction of the Z-CRATE visor shall be nominally 0.030 thick and shall be 100% impregnated black polycarbonate plastic processed with a flat finish on both sides.

The assembly shall be enclosed in a mounting frame constructed of 0.040 minimum thickness aluminum. This frame shall be 1.5" (38 mm) deep and shall contain mounting holes for installation directly into the pedestrian signal door frame.

Case:
The case shall be one piece corrosion resistant aluminum alloy die casting compete with integrally cast top, bottom, sides and back. Four integrally cast hinge lug pairs, two at the top and two at the bottom of each case, shall be provided for operation of a swing down door.

The case when properly mated to other pedestrian signal components and mounting hardware shall provide a dustproof and weatherproof enclosure and shall provide for easy access to and replacement of all components.

Three versions of the case shall be available. The first version shall be supplied with Clamshell mounting hardware installed (ordered concurrently) for installation of "pole LEFT of message." The second version shall be the same except intended installation shall be "pole RIGHT of message". The third version shall contain upper and lower openings as described below, suitable for either post top or bracket mounting. The first and second version need not include upper and lower openings but when provided shall be adequately plugged.

The openings included in the third version shall accommodate standard 1.5" (38 mm) pipe brackets at the top and bottom of the case. The bottom opening of the signal case shall have a shurlock boss integrally cast into the case. The dimension of the shurlock boss shall be as follows: Outside diameter 2.625" (667 mm); Inside diameter 1.969" (50 mm); number of teeth 72, angle of teeth 90° and depth of teeth $^5/_{64}$" (2 mm). As an option, a shurlock boss of the same dimensions may be ordered for the top opening on the case. The teeth shall be clean and sharp and provide full engagement. The radial angular grooves of the shurlock boss, when used with shurlock fittings, shall provide positive positioning of the entire signal to eliminate rotation or misalignment of the signal.

Door Frame:
The door frame shall be a one piece corrosion resistant aluminum alloy die casting, complete with two hinge lugs cast at the bottom and two latch slots cast at the top of each door. The door shall be attached to the case by means of two Type 304 stainless steel spring pins. Two stainless steel hinged bolts with captive stainless steel wingnuts and washers shall be attached to the case with the use of stainless steel spring pins. Hence, latching or unlatching of the door shall require no tools.

Painting:
Prior to final assembly; the case, door frame, Clamshell mounting, and visor (aluminum portion only) shall be thoroughly cleaned and then etched with an iron phosphate solution. An appropriate chemical sealer is then applied. For all gloss finish colors, a top grade T.G.I.C. polyester powder is electrostatically applied and oven baked. To provide a true low luster flat black, an epoxy hybrid powder is applied in the same manner. This material chalks black and is often referred to as a "self-cleaning" flat black. This process yields a high quality and very durable finish.

Warranty:
The entire pedestrian signal, including Z-CRATE visor, message lens, double parabolic reflector, lamp sockets, case, and door frame (but not the A21 traffic signal lamps), shall be warranted for two (2) years from the date of original shipment against defects in workmanship and/or materials.

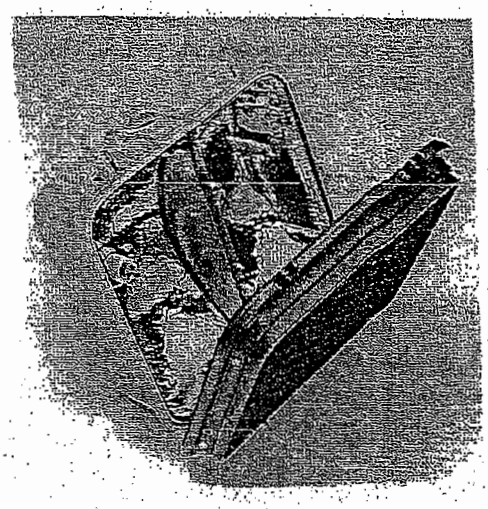
Paint Options:
Paint Door Flat Black
Paint Housing Olive Green
Paint Housing Federal Yellow
Paint Housing Gloss Black
Paint Housing Flat Black
Paint Housing Aluminum

Specifications

Mounting Options:
Clamshell 2 Mounting (pole left of message)
Clamshell 2 Mounting (pole right of message)
Clamshell 3 Mounting (pole left of message)
Clamshell 3 Mounting (pole right of message)
Maintenance Housing (one side plugged)
Maintenance Housing (both sides plugged)
Flat Pole Adaptor
Conduit Side Entrance Kit
Allen Head Bolts (set of 2)
Steel Spacers (set of 2)
Cast Closed Top and Bottom
Add Shurlock Top Port

Visor Options:
Open visor in lieu of Z-CRATE visor
Open visor in addition to Z-CRATE visor

Other Options:
Substitute 1/4" Polycarbonate Lens
Substitute Rotatable Lamp Sockets
Substitute 69 watt Lamps
Substitute 116 watt Lamps
Substitute 60 watt Lamps



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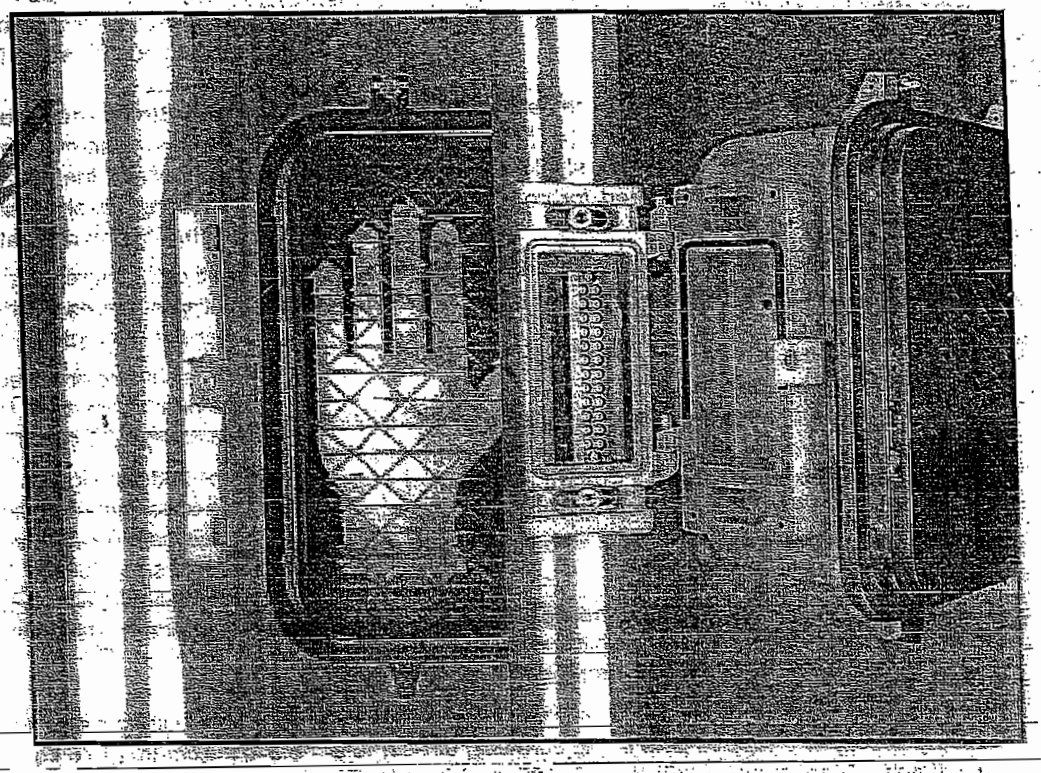
Manufacturers & System Engineers
9603 John Street • Santa Fe Springs, CA 90670
Tel: (562) 923-9600 • Fax: (562) 923-7555
Toll Free: 1-800-733-7872 • www.idc-traffic.com

U.S. Traffic Corporation

Manufacturers & System Engineers

Model 4835

Clamshell Mount Pedestrian Signal Mounting Hardware



Features & Benefits

- 12 position terminal block
- Clean, simple installation
- Patented, reversible design for left or right hand mounting
- Flexible mounting, including through-bolt and band-it
- Vandal - proof exterior lock

From procurement through installation and on to maintenance, our Model 4835 is built to make everyone's job easier. Whether you prefer bolting or banding, installation of the 4835 is quick and hassle-free. Add the further flexibility of a patented design that's reversible for left-or-right-hand mounting, and most of the headaches of stockpiling disappear.

Since a single hex key gives you full access to the wiring block, it's hard to imagine how servicing could become any more convenient. By creating a simple, streamlined shape, the 4835 even makes signals easier to look at.

Of course, there is one group the 4835 makes things tougher for ... vandals. Its exterior lock and solid construction assure that, which should make everyone else's job just that much easier.

Distributed By:
PARADIGM Traffic Systems, Inc.
P.O. Box 14509
Fort Worth, TX 76117-0509
817-831-9406 fx: 817-831-9407

IPC Indicator Controls™

TRAFFIC CONTROL SYSTEMS SECTION MEMBER ITE

9/28/99

Specifications

The subject mounting hardware shall be a two-piece, cast aluminum alloy assembly. The two separate castings shall be joined in the final assembly by the use of stainless steel spring pins. The spring pins shall be factory installed into the hinge ears which shall be integrally cast into the pole half of the assembly. Final mating of the two halves shall be accomplished by inserting the spring pins into the drilled hinge ears of the head half of the assembly (loose fit).

Applicable Installations:
The pole half of the assembly shall be designed to adapt to a wide range of pole configurations (4" [102 mm] minimum diameter). The pole mating surface shall be configured much like terminal compartments used for conventional bracket mounting.

The half of the assembly mounted to the pole shall not weigh more than 3.4 pounds (4.43 kg), thus facilitating rapid installation.

Adaptable Mounting:
Unit construction shall allow for through-bolt, bolt to tapped pole, lag screw and band-it type mounting. Through bolt mounting shall accept two 1/2" (13 mm) diameter hex head bolts located on 9" (229 mm) centers. A channel with a recessed shoulder shall be included to retain the bolt head (or nut) and thus prevent rotation.

Clearance shall be provided on the mating half of the assembly such that the bolt can extend through the nut when it is desired to enclose the nut and bolt end rather than the bolt head.

The clamshell mounting system shall include an option for bolting directly to a tapped pole or lag screwing directly to a wood pole. Steel spacers with a 9/16" (406 mm) hole to slip over the shank and under the head of the mounting bolt or the lag screw shall be available as an extra cost accessory.

Band-it type mounting shall be provided by integrally casting two recessed slots near the top and bottom of the pole half of the assembly. The corners of this slot shall be relieved to prevent damage to the band-it type strapping material. Approximate dimensions of each slot shall be 7/8" (22 mm) wide and 1/8" (3 mm) deep thus adequately retaining 3/4" (19 mm) strapping material.

30 Degree Adjustment:
The bolt hole shall be elongated from side to side and the recessed shoulder shall be curved to allow rotation of the installed assembly 15° in either direction from center for a total of 30° (when installed on a 4" [102 mm] pole).

Improved Mounting Location:
The subject mounting hardware shall allow a "pole to pedestrian signal" clearance of approximately 3" (76 mm) thus providing stronger and more rigid mounting than conventional bracket mounts. This close spacing between the pole and the pedestrian signal in most locations should reduce the vulnerability to damage by curb-hugging trucks and should be esthetically more pleasing to the eye.

Vandal - Proof Installation:
The head half of the assembly shall be secured to the pedestrian signal with four 5/16" (8 mm) bolts. The pedestrian assembly shall be mounted on the pole by lining up the mounting pins of the pole half with the mounting ears of the pedestrian assembly and lowered to the permanent position. The pedestrian assembly shall then be rotated until the clamshell is closed. Locking is accomplished by inserting the flat head socket bolt and tightening with a 3/16" (5 mm) allen wrench.

Terminal Block and Dual Wiring:
Twelve sets of screw terminal pairs shall be located on a terminal block in the pole half of the clamshell assembly. A corresponding rain shield shall be provided in the upper third of the pole half to prevent water intrusion.

A closed cell neoprene sponge gasket shall be provided on the mating surfaces of the two halves of the assembly to complete the rain-tight construction.

Provisions shall be provided to allow wiring to the field wires by conventional screw type terminals or by quick disconnects. Field wires shall be either AWG 12 or AWG 14.

When pedestrian signals and clamshell mounting hardware are ordered concurrently, the clamshell mounting hardware shall be mechanically assembled and wired to the pedestrian signal on the side specified. If top and bottom holes exist in the mating pedestrian signal, such holes shall be plugged as part of the clamshell installation procedure.

Weight:
The subject clamshell mounting hardware assembly shall weigh 8.3 lb maximum (3.76 kg).

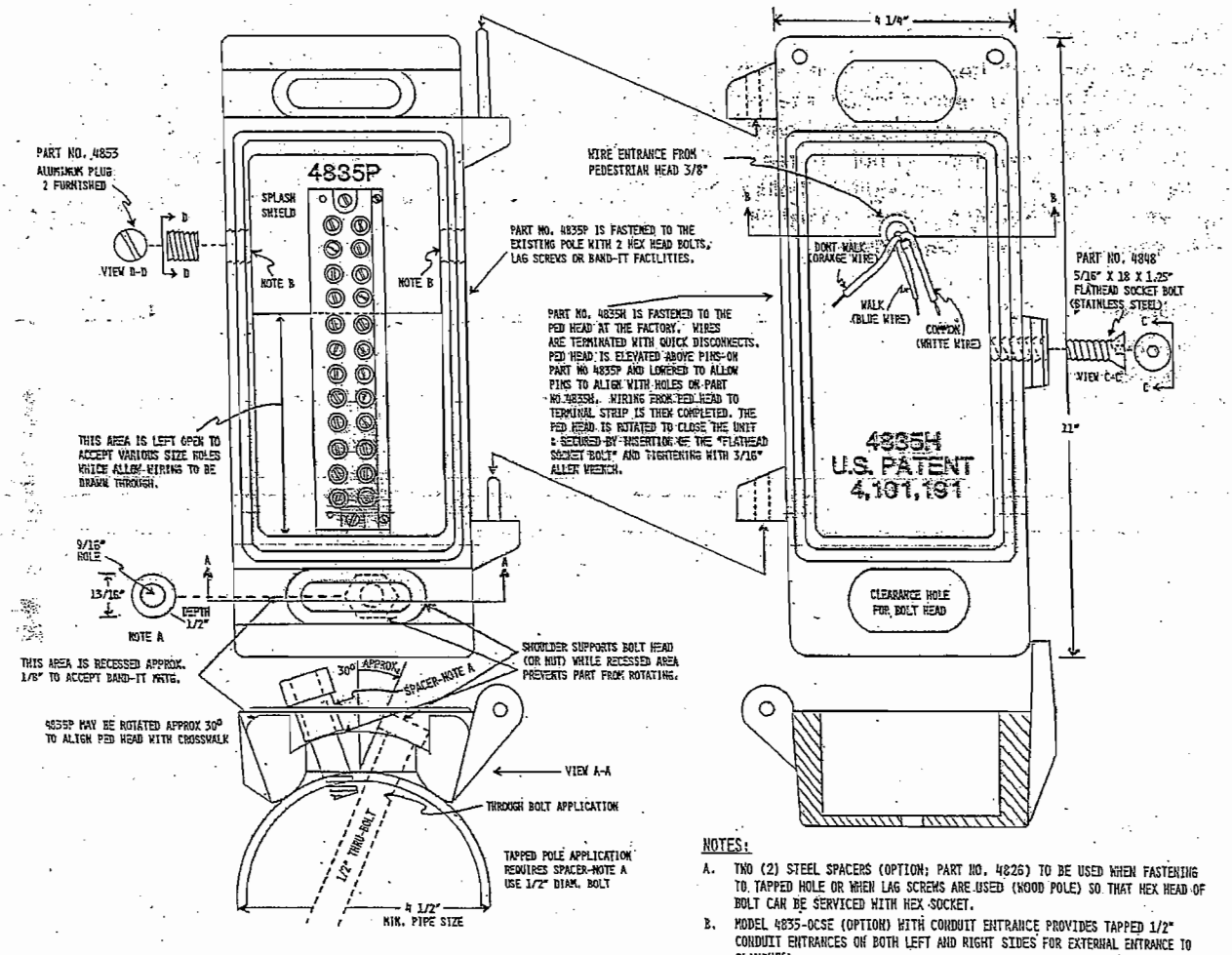
Dimensions:
11.25" H x 5.5" W x 3.75" D (286 x 140 x 95 mm).

Painting:
Prior to final assembly, the clamshell mounting hardware shall be thoroughly cleaned and then etched with an iron phosphate solution. An appropriate chemical sealer is then applied. For all gloss finish colors, a top grade T.G.I.C. polyester powder is electrostatically applied and oven-baked. To provide a true low luster flat black, an epoxy hybrid powder is applied in the same manner. This material chalks black and is often referred to as a "self - cleaning" flat black. This process yields a high quality and very durable finish.

Warranty
The clamshell mounting hardware shall be warranted for two (2) years from the date of original shipment against defects in workmanship and/or materials.

Applicable Patent
The product described herein is protected by U.S. and International patent number 4,101,191.

Assembly Drawing



NOTES:

A. TWO (2) STEEL SPACERS (OPTION; PART NO. 4826) TO BE USED WHEN FASTENING TO TAPPED HOLE OR WHEN LAG SCREWS ARE USED (WOOD POLE) SO THAT HEX HEAD OF BOLT CAN BE SERVICED WITH HEX SOCKET.

B. MODEL 4835-OCSE (OPTION) WITH CONDUIT ENTRANCE PROVIDES TAPPED 1/2" CONDUIT ENTRANCES ON BOTH LEFT AND RIGHT SIDES FOR EXTERNAL ENTRANCE TO CLAMSHELL.

C. TWO (2) ALLEN SOCKET HEAD BOLTS (OPTION; PART NO. 4829-13) TO BE USED WHEN FASTENING TO TAPPED POLE.

Options:

Model 4835-CSE: Clamshell mount with optional conduit side entrances.

The pole half of the clamshell assembly shall be provided with 1/2" (13 mm) tapped conduit entrances on both left and right sides to facilitate exterior pole wiring. Conduit entrances shall be sealed with removable insert (Part No. 4853) at time of shipment.

Part No. 4826: Steel spacers.

Required to raise bolt hex head above locking groove when mounting method includes tapped hole in pole or lag screws in wood pole. Spacers include 9/16" (406 mm) diameter hole to readily accept 1/2" (13 mm) diameter mounting bolts or lag screws. Head mounting half of clamshell is relieved to accommodate head of bolt.

Paint Options:

Olive Green
Federal Yellow
Gloss Black
Flat Black

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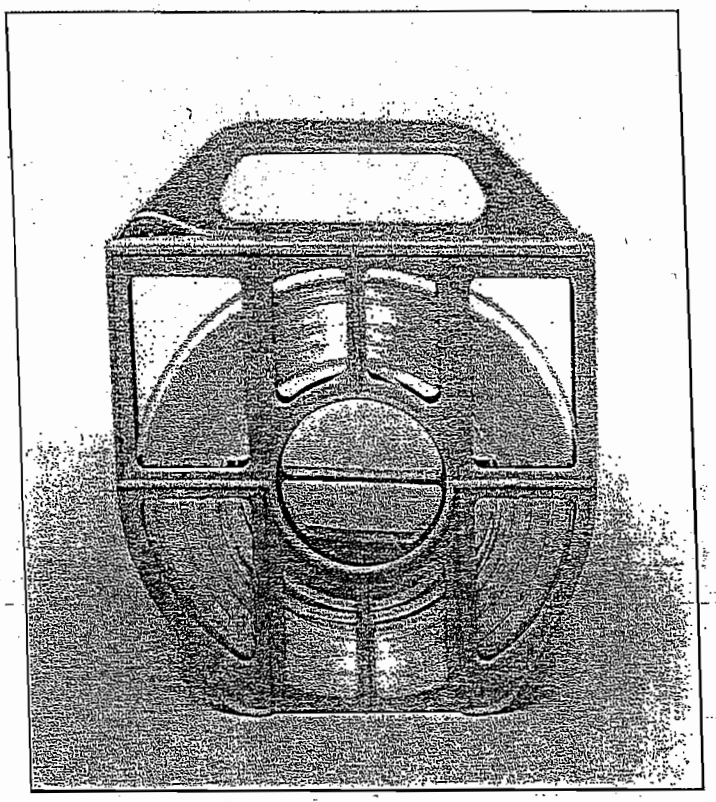
SIGNFIX BANDING PRODUCTS



Signfix features:

*PVC container
-Center spool recoils excess band to prevent waste
-Prevents injury by storing end of band
-Waterproof
-Protects band
-Handle for easy carrying

*AISI 201 stainless
-Best for street name and regulatory signing
-Corrosion resistance
-Superior strength
-Signlife performance
-Excellent tensile properties

Color Coded PVC container identifies the different widths of band

Part Number	Color	Width-inches	Thickness-inches	Weight-lbs
HPN-209	BLUE	1/2	0.030	5.1
→ HPN-109	GREEN	5/8	0.030	6.4
HPN-127	RED	3/4	0.030	7.7

Specify AISI 201 Stainless Steel To Insure Proper Strength

MINIMUM BREAKING STRENGTH				
	Type 201	Type 304	Type 316	Carbon Steel
Width-inches	Force	Force	Force	Force
1/2	1465	1130	1200	1125
→ 5/8	1835	1410	1500	1405
3/4	2350	1890	1800	1690

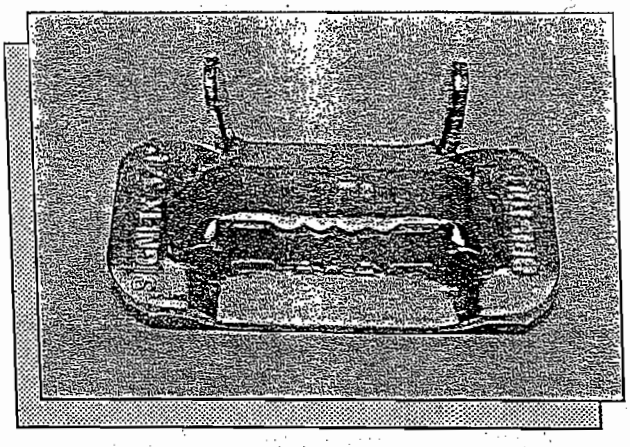
Values shown in pounds

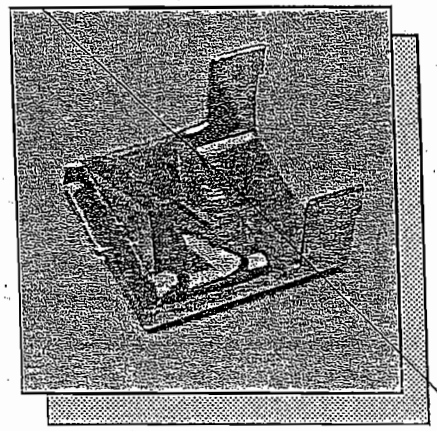
Chemical Composition

C	S	Mn	P	S	Cr	Ni	N
0.08 Max	1.0 Max	6.00 7.50	.045 Max	0.30 Max	16.0 18.0	3.5 5.0	0.25 Max

REGULAR BUCKLE

*Available in widths 1/2", 5/8", 3/4"
*Type 201 stainless steel
*For use with .030" and .036" thick stainless steel band
HPN210 - 1/2"
HPN110 - 5/8" ←
HPN128 - 3/4"



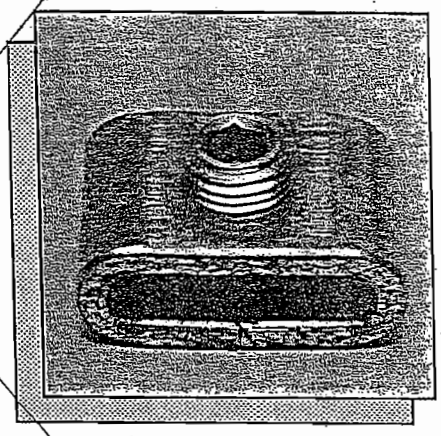


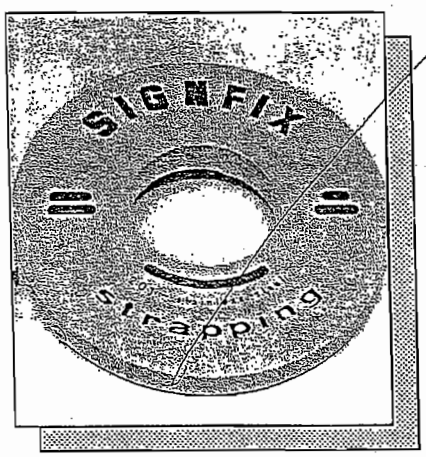
LIGHTWEIGHT BUCKLES

*Available in widths 3/8", 1/2", 5/8", 3/4"
*Type 201 stainless steel
*For use with .020" thick stainless steel band
HPN205 - 3/8"
HPN206 - 1/2"
HPN207 - 5/8"
HPN208 - 3/4"

SCREW BUCKLES

*Available in 1/2" and 3/4" widths
*Type 201 stainless steel
*For use with .030" thick or thinner stainless steel
HPN211 - 1/2"
HPN212 - 3/4"





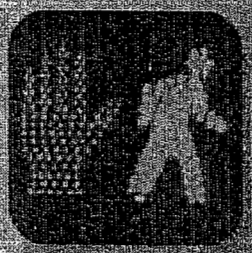
LIGHTWEIGHT BAND

*Available in widths 3/8", 1/2", 5/8", and 3/4"
*Type 201 stainless steel
*150' coils
*.020" thickness
HPN066 - 3/8"
HPN067 - 1/2"
HPN068 - 5/8"
HPN069 - 3/4"

DURALIGHT™

JXR-300 VI Series LED Traffic Signal Lamps

Certified by ISO9001 International Quality Assurance System



Main Features:

- Conform all ITE specifications
- Low power consumption
- Long operating lifetime LEDs
- Retro fit design & UV stabilized shell
- Wide viewing angles
- Even brightness & standard chromaticity

Product Characteristics:

Part Number	Figure	Size (inches)	Size (mm)	Config	Symbol: Hand	Symbol: Person	Symbol: Countdown	Voltage (AC): Typical	Voltage Range: 60Hz(AC)	POWER (W): Hand	POWER (W): Person
JXR-300VIA	A	16 x 16	407 x 407	Side by Side	Full	Full	-	120V-60Hz	80V-135V	9	9
JXR-300VIB	B	16 x 16	407 x 407	Side by Side	Outline	Outline	-	120V-60Hz	80V-135V	7	7
JXR-300VIC	C	16 x 16	407 x 407	Overlay	Full	Full	-	120V-60Hz	80V-135V	9	9
JXR-300VID	D	16 x 16	407 x 407	Overlay	Outline	Outline	-	120V-60Hz	80V-135V	7	7
JXR-300VIE	E	16 x 16	407 x 407	Countdown	Full	Full	2 Digit(8W)	120V-60Hz	80V-135V	9	9
JXR-300VIF	F	16 x 16	407 x 407	Countdown	Outline	Outline	2 Digit(8W)	120V-60Hz	80V-135V	7	7

Figure A

Figure B

Figure C

Figure D

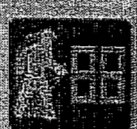


Figure E

Figure F

TraStar,Inc.
Tel:(469)867-8788
Fax:(214)473-8080
Add:P.O.Box 251752
Plano,TX 75025
Email:ptian@attbi.com

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	Opticom Cable

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 321 4 Conductor Opticom Cable

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

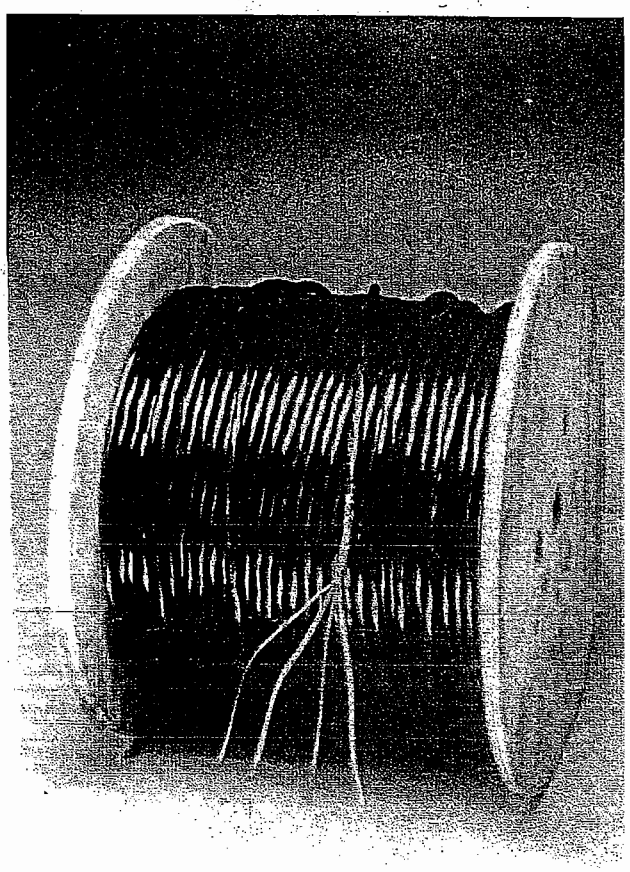
Traffic Control Devices

3M

Opticom™ Priority Control System

Detector Cable Model 138

An Opticom™ System Matched Component Product



Description

The M138 Optical Detector Cable is designed and manufactured explicitly for use with Opticom Detectors. M138 has three color-coded conductors, a conductive shield and drain, and a black PVC jacket.

This durable, high quality cable carries the appropriate power to the Optical detectors from the Phase Selector and delivers the necessary quality signal to the Phase Selector discriminator circuitry up to 1000 ft. (305 m).

Features

- Optimized to interface M205 detectors to an Opticom Phase Selector
- Assures effective range of 2800 ft. (853 m) with Opticom System components
- Durable construction
  - — Suitable for direct burial
  - — Suitable for conduit and mast arm pull
  - — Suitable for exposed overhead installation (messenger wire required)

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access-Phase II
LOCATION: Inwood Connection
JOB NO: DSI#323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	5C/14AWG ITMSA 20-1
1	7C/14AWG ITMSA 20-1

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 322 and 323 5 and 7 Cndr. Signal Cable (16 AWG) (ITMSA 20-1)

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

Rome Cable CORPORATION
421 Ridge Street
Rome, New York 13440

PACKING LIST

CUSTOMER C

SHIP TO
DURABLE SPECIALTIES, INC.
1211 S. ALEXANDER AVE
PO# 042103/JACK OWEN
DUNCANVILLE, TX 75137
JACK OWEN

613147

BILL TO
MULTICOM INC.
1076 FLORIDA CENTRAL PKWAY
LONGWOOD, FL 32750

613147

Load Id: 6180066828

ORDER #	REV. #	ORDER DATE	PA
HL5347	00	05/01/03	1 / 1

CUSTOMER P.O.	P.O. DA
013709 PARTIAL	05/01/03

SHIP VIA	FRT TERMS OF S
DEEP SOUTH	PPD SFFA

BILL OF LADING	WEIGHT
6180066828	

PAYMENT TERMS	DATE SHIPPED	RLS
1% 45 NET 60	05/09/03	001

NO. OF BOXES 0

LINE	PRODUCT NUMBER	UM	DESCRIPTION	QUANTITY SHIPPED	QUANTITY BACK ORD.	LOT/SERIAL NO.	NO C BOXE
004-01	80096	FT	20-1-PE-14C5-7-PE	5600			
	004-14G0005CR201BS		Customer Part Number				
			Put Up: 1 X 5600				

Length	Weight	Loc'n	Size	Id	Seq	MO #
5600	663	34-65B	3618	54944	001	

20-1-PE-14C5-7-PE

"CERTIFICATE OF COMPLIANCE AND TEST REPORT MUST ACCOMPANY SHIPMENT"

* *

CONTACT JACK OWEN 972/296-6324
24 HRS PRIOR TO DELIVERY
BALANCE OF ORDER ON HL5348

Total Weight: 663

ROME

214 Nashua Street, Leominster MA 01453
Phone: (978) 537 - 9138 Fax: (978) 537 - 8392

CERTIFICATE OF COMPLIANCE

Customer: Multicom
P.O.: 013709

P/N: 80096
Lot No.: 07671A

Specification:
P/N: 80096
IMSA Specification No. 20-1 1997
Type: 14-5 STR IMSA 20-1

Description:
5C 14 AWG 7/Strand Bare Copper Low Density Polyethylene Insulation,
Overall Clear Mylar Wrap,
Black Polyethylene Jacket, Indent Print

Quantity of Reels:

Cable Quantity: 5,600'

ROME Job Reference: 07671A

This is to certify that the above material is manufactured in full accordance with the above referenced specification. Manufacturer's test data on file and will be made available upon request.

Quality Assurance: Mary Fortuno

Date: 5-8-03

ROME

IMSA SPEC. NO. 20-1 1997
CERTIFIED TEST REPORT

Report No.: 07671A-031203

DATE: 5-8-03

JOB NO.: 07671A

CUSTOMER: Multicom

TYPE: 14 - 5 STR IMSA 20 - 1

P.O. NO.: 013709

PART NO.: 80096

ATTRIBUTE	REQUIREMENT	RESULT
CONDUCTOR	ASTM B-8 #14 AWG 7/.0242 BARE COPPER	#14 AWG 7/.0242 BARE COPPER
INSULATION	POLYETHYLENE, LOW DENSITY CONFORMING TO UL62 EXCEPT COLD BEND TEMP IS -55° C	CONFORMS, POLYETHYLENE, LOW DENSITY
	THICKNESS	
	MINIMUM AT ANY POINT. .022" (.559 mm)	.025" (.635 mm)
	MIN. ACCEPTABLE AVG. .025" (.635 mm)	.028" (.711 mm)
	7500 VOLT AC SPARK TEST	PASS
COLOR CODE	COND. COLOR 1 BLACK 2 WHITE 3 RED 4 GREEN 5 ORANGE	CONFORMS

ROME

IMSA SPEC. NO. 20-1 1997
CERTIFIED TEST REPORT

Report No.: 07671A-031203

ATTRIBUTE	REQUIREMENT	RESULT
CABLE ASSEMBLY		
CABLE LAY	5.0" (12.7 cm) MAXIMUM	4.75" (12.07 cm)
FILLERS	NON-METALLIC, MOISTURE RESISTANT, NON-WICKING	CONFORMS
TAPE	CLEAR MYLAR,	CLEAR MYLAR
	10% MIN OVERLAP	38%
JACKET	UL STANDARD 62 POLYETHYLENE	CONFORMS POLYETHYLENE
	THICKNESS	
	MINIMUM AT ANY POINT .036" (.914 mm)	.045" (1.143 mm)
	MINIMUM AVG. .045" (1.143 mm)	.048" (1.219 mm)
	TENSILE STRENGTH 1700 PSI (11.72 MN/m²)	3054 PSI (21.06 MN/m²)
	ELONGATION 400%	800%

ROME

IMSA SPEC. NO. 20-1 1997
CERTIFIED TEST REPORT

Report No.: 07671A-031203

ATTRIBUTE	REQUIREMENT	RESULT
IDENTIFICATION	INDENT PRINT ON THE JACKET ROME 2003 IMSA 20-1 600 V EVERY 2 FT.	CONFORMS
PACKING AND MARKING FOR SHIPMENT	PLYWOOD REELS, ENDS OUT AND SEALED, PROTECTIVE WRAP, FULL MARKING.	CONFORMS
SAMPLING INSPECTION AND ACCEPTANCE TESTS ON FINNISHED CABLE	2500 VOLTS AC, FOR 1 MINUTE CONDUCTOR TO CONDUCTOR,	PASS
SAMPLING PLAN FOR FINNISHED DIMENSIONS	1 SAMPLE PER 10,000 FT.	CONFORMS
SAMPLING PLAN FOR DIELECTRIC	100 %	CONFORMS

REVIEWED BY

Mary Fortuna

QUALITY ASSURANCE

DATE

5-8-03

Anixter Inc.
Regional Distribution Center
1601 Waters Ridge Road
Lewisville TX 75057

CONTENT OF CARTON

LP : S0000822143

WAREHOUSE:104	PHONE NUMBER: 800-492-9745	DATE: 07/30/03 11:59

036604 S DURABLE SPECIALTIES, INC O L PO BOX 381788 D DUNCANVILLE TX 75138 U.S.A. T O	S DURABLE SPECIALTIES, INC H JACK OWEN I 1211 SOUTH ALEXANDER P DUNCANVILLE TX 75138 U.S.A. T O

CUSTOMER PO NO:	PAYMENT TERMS:	FREIGHT TERMS:	SHIPPING ORDER:
036604	NET 30	PREPAID	88115200001

LINE	QTY SHP	ITEM DESCRIPTION
		SALESREP: TC
1	5453	2G-1407 14-7C IMSA 20-1 STR BC PE PVC JKT LicPl:S0000822143 Reel: I0021683971 Qty: 1 X 5453

CERTIFICATE OF COMPLIANCE

Date	7/30/03

Customer Name	DURABLE SPECIALTIES, INC.
Address	1211 South ALEXANDER
City, State	DUNCANVILLE TX. 75138

Customer Purchase Order No.	36604
Anixter Sales Order No.	88215200

Anixter certifies that the material shipped on your referenced purchase order(s) is accurately described in the applicable bill of lading, packing slips, and invoices; that such material was manufactured in accordance with applicable industry and/or manufacturer's specifications; and that the material shipped complies with the requirements of your purchase order.

Customer Part No.	Anixter Part No.	Applicable Specification	Lot Number/Date of Manufacture
	26-1407	14-7e	Rom
		IMSA 20-1	I 00216397
		STR BC	
		PVC	

Signature: Tony Dart
Quality Manager
Anixter Inc

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI#323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	16C/12 AWG IMSA 20-1

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 324 16 Cndr Signal Cable (12 AWG)(IMSA 20-1)

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

Advanced Digital Cable Inc.

Precision Cable for the Electronics Industry

P.O. BOX 305
HIAWASSEE, GEORGIA 30546
828/389-0445
FAX 828/389-3922

INVOICE

DATE	INVOICE #
8/8/2003	18971

BILL TO:

MULTICOM, INC.
1076 FLORIDA CENTRAL PARKWAY
LONGWOOD, FLORIDA 32750

SHIP TO:

DURABLE SPECIALTIES INC
1211 SOUTH ALEXANDER AVENUE
DUNCANVILLE, TX 75137
MARK PO 042103

P.O. NUMBER	TERMS	REP	SHIP	VIA	F.O.B.	REFERENCE
13708	Net 30	018	8/8/2003	Estes	PREPAID	

QUANTITY	ITEM CODE	DESCRIPTION	PRICE EACH	AMOUNT
15,000	8740	18 - 2/C STR IMSA 50-2 REF: 18G0002CR502AD 1 SKID WITH 3 REELS 3x5000		
30,000	8780	14-2C STR IMSA 50-2 REF: 14G0002CR502AD 2 SKIDS WITH 6 REELS 6x5000		
15,000	MC-8742	18/4C SHLDED 50-2 REF: 18G0002PR502AD 2 SKIDS WITH 3 REELS 3x5000		
7,500	8716	12/16C STR 20-1 REF: 12G0016CR201AD 2 SKIDS WITH 2 REELS 2500/5000		
5,000	8720	12/20C STR 20-1 REF: 12G0020CR201AD 2 SKIDS WITH 2 REELS 2x2500		

TOTAL

PACKING LIST

ADVANCED DIGITAL CABLE
94 EAGLE FORK RD.
HAYESVILLE,NC 28904
(828)-389-0445

CERTIFIED TEST REPORT

CUSTOMER: Multicom
INVOICE: 7740
PO NO: 13708

ADC PART #: 8716
IMSA TYPE: IMSA 20-1 600V
ORD. QTY FT: 7,500

PRODUCT DESCRIPTION: 16 COND 12 AWG BC

MATL DESC, TEST CONDITIONS		RESULTS
Conductor: 12 AWG (7/.0305) BC		
Overall Diameter:	.092" NOM	.092"
Insulation: LDPE		
Wall Thickness:	.030" MIN AVG	.031"
	.027" MIN AP	.028"
Overall Diameter:	.152" NOM	.153"
Fillers:	NA	
Tape:	MYLAR 10% MIN P/F	Pass
Diameter:	.718" NOM	.710"
Drain:	NA	
Messenger:	NA	
Jacket: LDPE		
Wall Thickness:	.080" MIN AVG	.085"
	.064" MIN AP	.080"
Overall Diameter:	.878" NOM	.883"
Jacket Appearance:	P/F	Pass
Print:	INDENT P/F	Pass
Spark Test:	2500 P/F	Pass

Reported By	Date Tested
Michael Bedford	09-Jun-03

ADVANCED DIGITAL CABLE
94 EAGLE FORK ROAD
HAYESVILLE, NC 28904
PH. (828)389-0445 FAX (828)389-3922

CERTIFICATE OF COMPLIANCE

DATE: 6-9-03

PART NO: 8716

DESCRIPTION:

QTY. OF REELS: CABLE QTY:

REF#

ADVANCED DIGITAL CABLE CERTIFIES THE ABOVE MATERIAL SUPPLIED

AGAINST PURCHASE ORDER: 13708

WAS PRODUCED IN THE UNITED STATES, AND MANUFACTURED IN STRICT COMPLIANCE WITH AND TO SATISFY ALL THE REQUIREMENTS DEFINED BY THIS PURCHASE ORDER, AND CONFORMS TO THE SPECIFICATIONS LISTED.

CERTIFIED BY:

Michael Ledford

QUALITY AUDITOR

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 325 Pedestrian Push-Button and R10-4b Sign Assembly

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

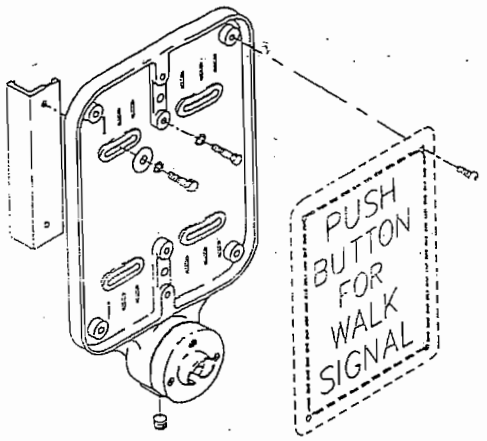
PELCO PRODUCTS, INC.

PUSH BUTTON STATIONS
9" x 12" ADJUSTABLE

ITEM	DESCRIPTION	PART NO.
①	PUSH BUTTON STATION, W/O CABLE GUIDE, 9" x 12":	
	W/ Long Life Switch, with Wire Leads Cover Assy. (SE-2009)	SE-2013-XX
	W/ Heavy Tension Switch Cover Assy. (SE-2050)	SE-2065-XX
	W/ Snap Action Switch Cover Assy. (SE-2047)	SE-2066-XX
	W/ Metal Actuator Switch Cover Assy. (SE-2016)	SE-2021-XX
②	PUSH BUTTON STATION, W/ CABLE GUIDE, 9" x 12":	
	W/ Long Life Switch, with Wire Leads Cover Assy. (SE-2009)	SE-2019-XX
	W/ Heavy Tension Switch Cover Assy. (SE-2050)	SE-2068-XX
	W/ Snap Action Switch Cover Assy. (SE-2047)	SE-2069-XX
	W/ Metal Actuator Switch Cover Assy. (SE-2016)	SE-2021-XX

FEATURES:

- ADJUSTABLE BANDING SLOTS & BOLT ON MOUNTINGS
- ADJUST TO FIT 3½" THRU 15" POLE
- POSITIVE O-RING COVER SEAL
- ACCOMODATES BOTH 2 HOLE AND 4 HOLE SIGNS
- STAINLESS STEEL VANDAL-PROOF SCREWS
- WITH OR WITHOUT REAR CABLE GUIDE
- LED, FREEZEPROOF AND PLUNGER OPTIONS AVAILABLE



NOTES:

1. PLEASE SPECIFY PART NO. PLUS SUFFIX (-XX). EXAMPLE: SE-2013-03 IS A PUSH BUTTON STATION W/O CABLE GUIDE, 9" x 12", LONG LIFE SWITCH W/WIRE LEADS COVER ASSY., LED & FREEZEPROOF W/ DIAPHRAGM.
2. LED ASSY. SHOWN IS 3 VOLT, DESIGNED TO BE USED WITH PED/LED ISOLATOR BOARD, BULLETIN NO 177. OTHER VOLTAGES AVAILABLE UPON REQUEST.
3. SEE BULLETIN NO. 172 & 122 FOR PUSH BUTTON COVER ASSEMBLIES.
4. SEE BULLETIN NO. 124 FOR SIGNS AVAILABLE.
5. CABLE GUIDE IS 1-1/8" O.D. & EXTENDS ½" BEYOND THE BACK HOUSING.

Black

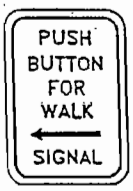
-XX SUFFIX	OPTIONS AVAILABLE	PART NUMBER: 9" x 12" — W/O CABLE GUIDE: SE-2013	SE-2065	SE-2066	SE-2021	W CABLE GUIDE: SE-2019	SE-2068	SE-2069	SE-2022
-00	COVER ASSY. W/O OPTIONS	•	•	•	•	•	•	•	•
-01	LED	•	•	•		•	•	•	
-02	LED & FREEZEPROOF W/ BOOT	•				•			
-03	LED & FREEZEPROOF W/ DIAPHRAGM	•				•			
-04	LED & 2" MUSHROOM PLUNGER (ADA)	•				•			
-06	FREEZEPROOF W/ BOOT	•				•			
-07	FREEZEPROOF W/ DIAPHRAGM	•				•			
-08	2" MUSHROOM PLUNGER (ADA)	•				•			
-10	1-1/8" DOME PLUNGER	•				•			
-11	LED & 1-1/8" DOME PLUNGER	•				•			

320 S.W. 18th St. • Edmond, Oklahoma 73013 • (405) 340-3434 • FAX: (405) 340-3435 • E-mail: pelcoinc.com

PELCO PRODUCTS, INC.

Distributed By:
PARADIGM Traffic Systems, Inc.
P. O. Box 14509
Fort Worth, TX 76117-0509
817-831-9406 fx: 817-831-9407

PEDESTRIAN SIGNS

SF-1001


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-06,-08,-09,

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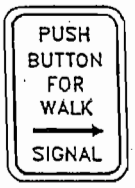

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-06,-08,-09

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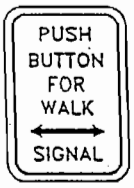


-06,-08,-09

SF-1004

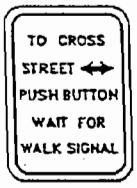

-01,-02,-03,
-05,-06,-08,-09
(R10-4)

SF-1005


-01,-02,-03,
-05,-06,-08,-09

SF-1006


-01,-02,-03,
-05,-06,-08,-09
(R10-4A)

SF-1007


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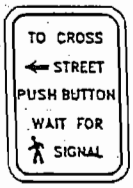
SF-1008


-06,-08,-09

SF-1009


-06,-08,-09

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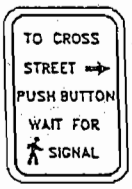
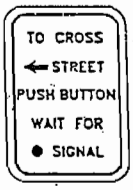


-06,-08,-09

SF-1011


-06,-08,-09

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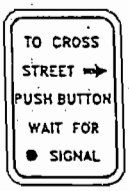
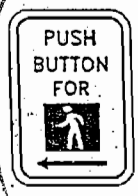


-06,-08,-09

SF-1013


-03,-05-06,
-08,-09

SF-1014

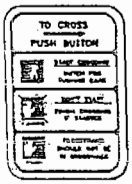

-03,-05,-06,
-08,-09
(R10-4B)
(9X12)

SF-1015

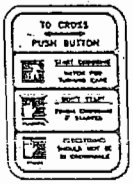

-03,-05,-06,
-08,-09

SF-1017

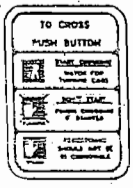

-03,-05,-06,
-08,-09

SF-1018


-03,-05,-06,
-08,-09

SF-1019


-03,-05,-06,
-08,-09

SF-1020


-03,-05,-06,
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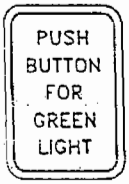
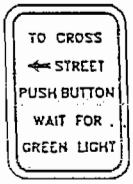
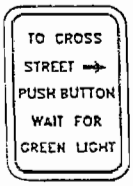
SF-1024


-01,-02,
-06,-08,-09
(R10-3)

SF-1026


-01,-02,
-06,08,-09
(R10-3A)

SF-1027


-01,-02,-06,
-08,-09

SF-1030

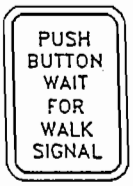
-03,-05-06,
-08,-09

SF-1031

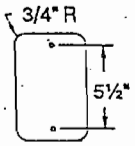
-03,-05-06,
-08,-09

SF-1032

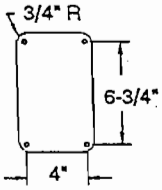
-03,-05-06,
-08,-09

SF-1039


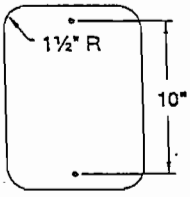
-01,-02,-03,
-05,-06,-08,-09



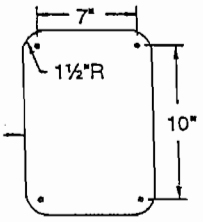
5" x 7"
-02



5" x 7-3/4"
-05



9" x 12"
-08



9" x 12"
-09

SUFFIX	SIGN SIZE	5/16" MOUNTING HOLES
-01	5" X 7"	NONE
-02	5" x 7"	2 (5½" CTC)
-03	5" x 7-3/4"	NONE
-04	5" x 7 3/4"	2 (6¼" CTC)
-05	5" x 7 3/4"	4
-06	9" x 12"	NONE
-07	9" x 12"	2 (6" CTC)
-08	9" x 12"	2 (10" CTC)
-09	9" x 12"	4

FEATURES:
- 2 OR 4 MOUNTING HOLES
- STANDARD CORNER RADIUS
- BLACK ON WHITE .063 ALUMINUM
- SPECIALS AVAILABLE UPON REQUEST

NOTES:
1. STANDARD SIGNS IN STOCK ARE SHOWN, SEE PRICE LIST FOR SPECIAL SIGNS.
2. WHEN ORDERING PLEASE SPECIFY PART NO. & SUFFIX, i.e., SF-1032-08 FOR A 9" x 12" SIGN W/ 2 HOLES 10" CTC.
3. -04 & -07 SIGNS HAVE DRILL STARTS BUT NO HOLES.

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	Optical Detector
1	Mounting hardware

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 326 Directional Sensors with Mounting Bracket

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

3M

Opticom™

Priority Control System

Optical Detector Models 711, 721, 722

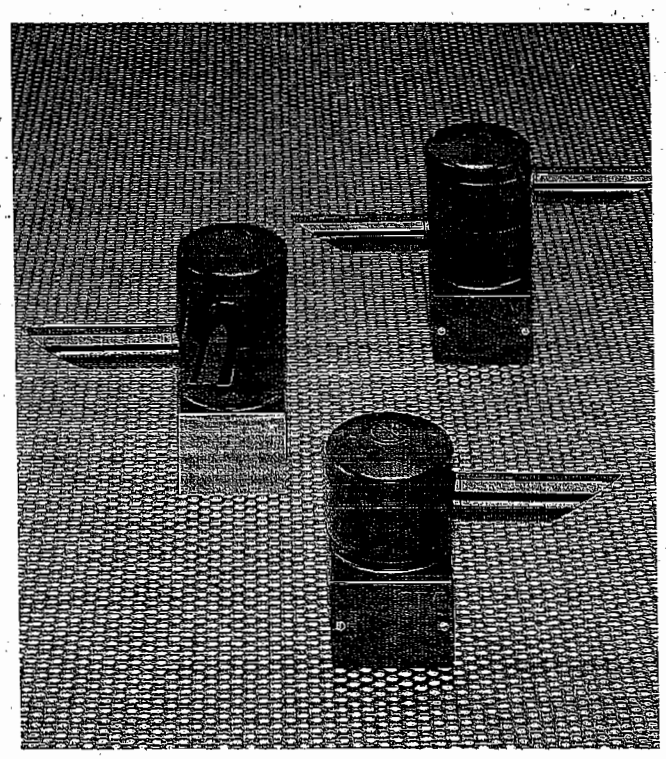
Reporter Series: Opticom™ System Matched Component Products

Description

The 700 series Opticom detectors transform the optical energy detected from an approaching, vehicle-mounted Opticom emitter to an electrical signal. The electrical signal is transmitted along a cable to the Opticom phase selector or discriminator for processing.

Detectors are mounted at or near the intersection that permits a direct, unobstructed line-of-sight to vehicle approaches. Detectors may be mounted on span wire, mast arm, or other appropriate structures.

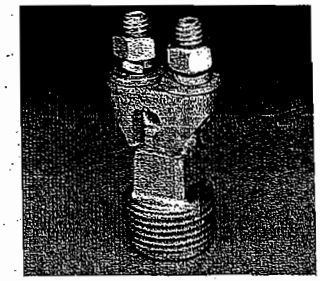
Models 711, 721 and 722 offer significant advances and flexibility for specific intersection applications. The detectors are designed for common applications in three configurations: one direction — the single channel 711; two direction — the single channel 721; and two direction, two output detection — the dual channel 722. All 700 series Opticom detectors greatly reduce installation and life cycle costs through their modular design, adjustable tubes and compatibility with existing Opticom intersection and vehicle equipment.



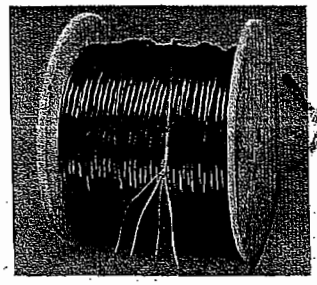
— Models 722, 721 (back) and 711

Features

- **Solid state circuitry**
- **Advanced electrical transient immunity**
- **Modular design**
- **Adjustable turret configuration ... accommodates skewed approaches**
- **Enclosure ... lightweight, durable, high impact polycarbonate construction**
- **Simplified installation ... span wire or mast arm**
- **Gray door identification of Model 722**



Span Wire Clamp



M138 Detector Cable

Accessories

- **Span wire clamp**
- **Model 138 Detector Cable**

Operating Parameters

— Reception range ... 200 ft. (60m) adjustable up to 2500 ft. (760m)

— Electrical ... 24 to 28 VDC, 50 MA minimum

— Temperature range ... -30°F (-34°C) to 165°F (74°C)

— Humidity ... 5% to 95% relative

Physical Dimensions

Model 711

Length	*12.0 in. (30.5 cm)*
Width	*4.75 in. (12.1 cm)*
Height	*5.63 in. (14.3 cm)*
Weight	*0.88 lbs. (400 g)*

Model 721/722

Length	*12.0 in. (30.5 cm)*
Width	*4.75 in. (12.1 cm)*
Height	*7.13 in. (18.1 cm)*
Weight	*1.12 lbs. (508 g)*

Important Notice to the Purchaser

THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

3M will repair or replace any Opticom™ Priority Control System component found to be defective in materials or manufacture within five (5) years from the date of shipment from 3M. See "Summary of Warranty Coverage" for details of extended five year coverage under the Opticom 5/10 warranty. This warranty shall not apply to incandescent lamps or to any System component which has been (1) repaired or modified by persons not authorized by 3M; (2) subjected to misuse, neglect or accident; or (3) has been damaged by extreme atmospheric or weather-related conditions.

In no event shall 3M be liable in contract or in tort for any injury, loss, or damage, whether direct, indirect, incidental, special or consequential, arising out of the use or inability to use the Opticom System or any component thereof. THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE.

3M has designed, developed and tested each Opticom Priority Control System component as part of a matched component system. 3M makes no warranty whatsoever concerning the reliability or safety of Opticom System components when used with non-Opticom System products. 3M shall not be responsible for any Opticom component which 3M determines has been damaged in whole or in part by its use with a non-Opticom System product.

Sale and use of the Opticom Priority Control System is expressly restricted to authorized agencies of government customers, within their respective jurisdictions. However, because the optical signal generated by the Opticom System is not exclusive, 3M cannot ensure exclusive activation by purchaser. Authorized users who desire to use or coordinate use of the Opticom System with that of other jurisdictions must first obtain the prior written approval of each authorized user in the jurisdiction where use is sought.

3M

Intelligent Transportation Systems
3M Safety and Security Systems Division

3M Center, Building 225-4N-14
St. Paul, MN 55144-1000

1-800-328-7098
1-800-224-2085 fax
651-575-5794
651-737-1055 fax

http://www.mmm.com/its

3M Canada Inc.

P.O. Box 5757
London, Ontario, Canada
N6A 4T1

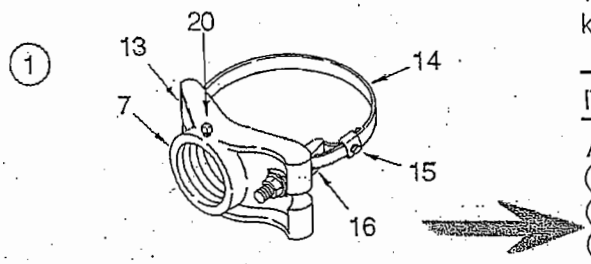
1-800-3MHELPS
519-451-2500

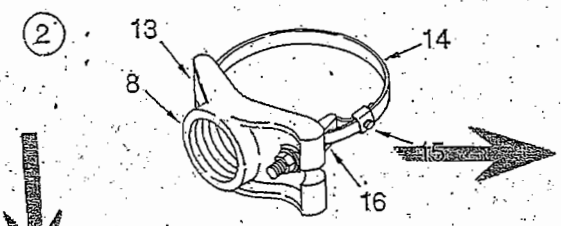
PELCO PRODUCTS, INC.

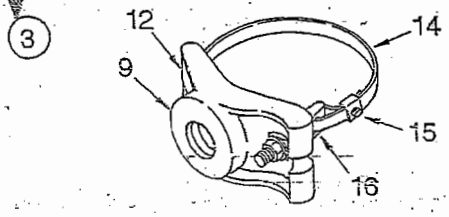
Astro Mini-Brac®

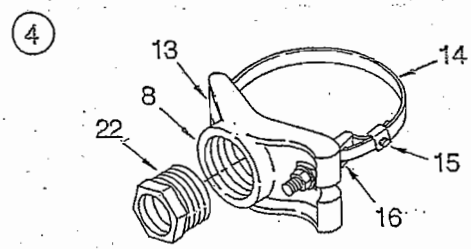
CLAMP KITS

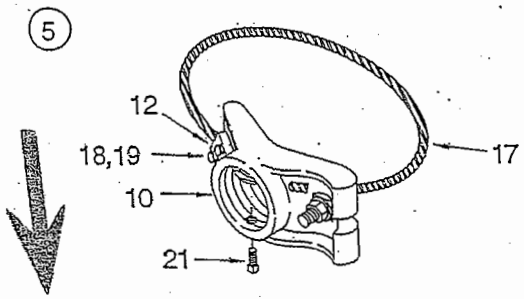
This unique mount is a smaller version of the Astro-Brac and gives the same kind of universal application. Ideal for side-of-pole or mast arm mountings.

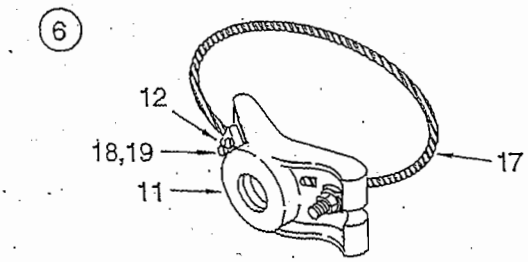








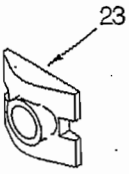




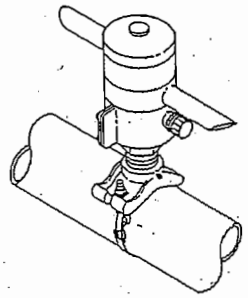
ITEM	DESCRIPTION	PART NO.
	ASTRO MINI-BRAC:	
①	BAND MOUNT, 1½"-11½ NPS	AB-0121-42
②	BAND MOUNT, 1½"-11½ NPT	AB-0121-42-NPT
③	BAND MOUNT, 3/4"-14 NPT	AB-0155-42
	BAND MOUNT, 1"-8NC	AB-0180-42
④	BAND MOUNT, W/ 3/4" NPT Reducer Bushing	AB-0132-42
	BAND MOUNT, W/1" NPT Reducer Bushing	AB-0165-42
⑤	CABLE MOUNT, Galv. Cable Mount, 1½"-11½ NPS	AB-0160-45
	CABLE MOUNT, Stainless Cable Mount, 1½"-11½ NPS	AB-0161-45
⑥	CABLE MOUNT, Galv. Cable Mount, 3/4"-14 NPT	AB-0163-L
7	MINI-BRAC CASTING, Band Mnt., 1½"-11½ NPS	AB-0266
8	MINI-BRAC CASTING, Band Mnt., 1½"-11½ NPT	AB-0266-NPT
9	MINI-BRAC CASTING, Band Mnt., 3/4"-14 NPT	AB-0333
	MINI-BRAC CASTING, Band Mnt., 1"-8NC	AB-0360
10	MINI-BRAC CASTING, Cable Mnt., 1½"-11½ NPS	AB-0338
11	MINI-BRAC CASTING, Cable Mnt., 3/4"-14 NPT	AB-0333-1
12	CABLE PLATE, Mini-Brac, 2-Hole	AB-0339
13	GROOVE PIN, 3/16" x 1¼"	FS-6201
14	BAND, 5/8" x Length, Stainless	AB-0243-42
15	BAND CLAMP, 5/8", Stainless	AB-0244
16	CLAMP SCREW KIT	AB-0303
17	CABLE ASSY., Galvanized Cable w/ Stainless Hardware	AB-0336-45
	CABLE ASSY., Stainless Cable w/ Stainless Hardware	AB-0337-45
18	BOLT, Hex. Hd., 5/16"-18 x 7/8", Stainless	FS-2098-SS
19	LOCKWASHER, Split, 5/16"-18	FS-4201-SS
20	SETSCREW, Square Hd., ¼"-20 x 5/8"	FS-3205
21	SETSCREW, Square Hd., ¼"-20 x 5/8", Stainless	FS-3205-SS
22	REDUCER BUSHING, 1½"-11½ NPT to 3/4"-14 NPT	SE-0471
	REDUCER BUSHING, 1½"-11½ NPT To 1"-1½ NPT	SE-0565
23	FLAT BACK ADAPTER, Mini-Brac	AB-0325

NOTES:

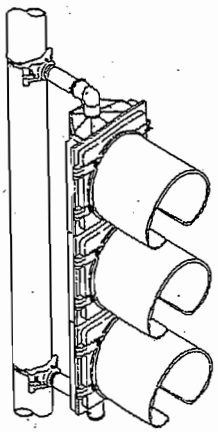
1. STANDARD BAND LENGTH OF 42" AND CABLE LENGTH OF 45" FITS POLE DIAMETER OF 4"-12".



TYPICAL APPLICATIONS:



MAST ARM MOUNTING
Emergency Traffic Signal Sensors

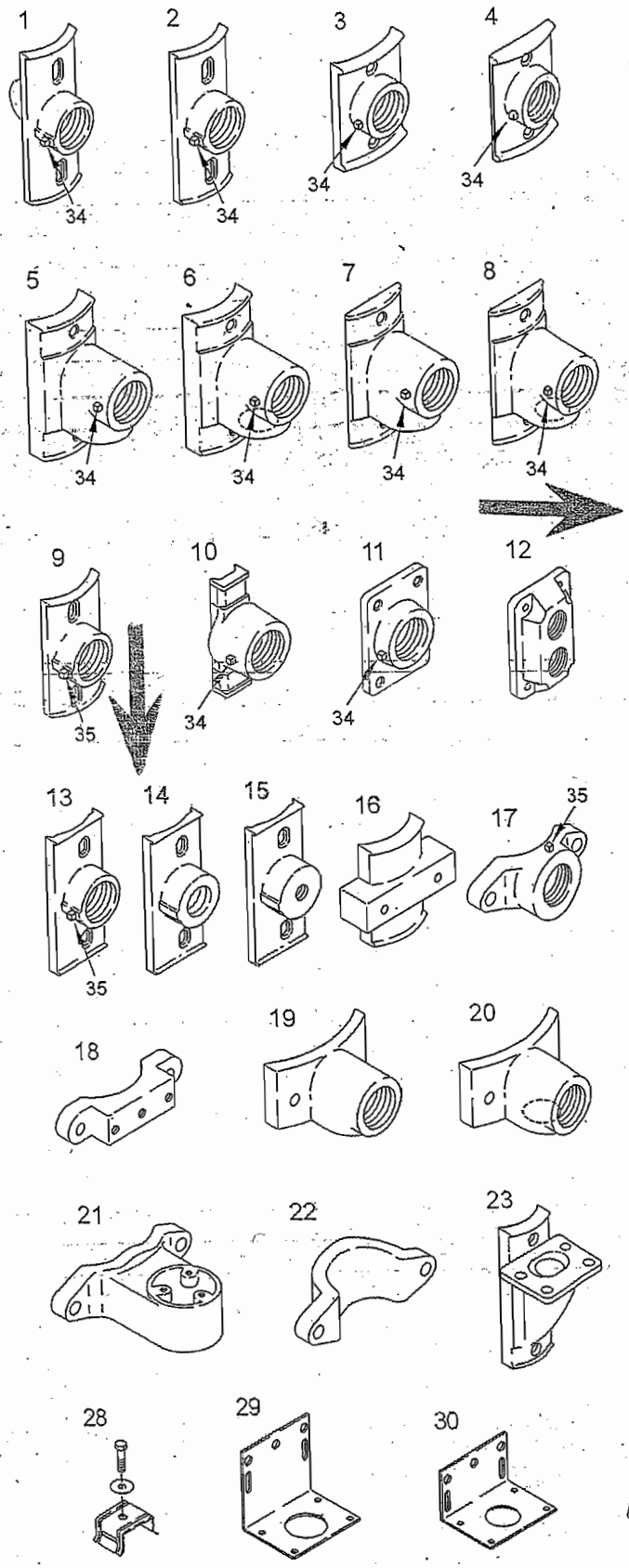


SIDE-OF-POLE MOUNTING
Vehicular or Pedestal Signals

320 S.W. 18th St. • Edmond, Oklahoma 73013 • (405) 340-3434 • FAX: (405) 340-3435 • E-mail: pelco@pelcoinc.com

MISCELLANEOUS HARDWARE
HUBS & MOUNTING BRACKETS

PELCO PRODUCTS, INC.



ITEM	DESCRIPTION	PART NO.
1	HUB PLATE, W/ Cable Guide.	SE-0444
2	HUB PLATE, W/O Cable Guide.	SE-0445
	HUB PLATE, Iron, W/O Cable Guide.	SE-4124
3	HUB PLATE, Large Pole.	SE-0357
4	HUB PLATE, Flat Back.	SE-0415
5	EXTENDED HUB PLATE	SE-0381
6	DOUBLE EXTENDED HUB PLATE, Alum.	SE-0382
7	EXTENDED HUB PLATE, Flat Back.	SE-0465
8	DOUBLE EXTENED HUB PLATE, Flat Back.	SE-0466
9	HUB PLATE, 4½" O.D. Pole.	SE-0454
10	NARROW HUB PLATE, 1½" W/ 3/4"-14 Hole.	SE-4049
	NARROW HUB PLATE, 1½" W/ 15/16" Hole.	SE-4050
11	SINGLE HUB PLATE	SE-0111
12	DOUBLE HUB PLATE, 1".	SE-0112
13	UNIVERSAL HUB PLATE, 1½" W/ 1½" Hole	SE-4108
	UNIVERSAL HUB PLATE, 1½" W/ 3/4"-14 Hole	SE-4105
	UNIVERSAL HUB PLATE, 1½" W/ 15/16" Hole	SE-4071
14	UNIVERSAL HUB PLATE, 3/4"-14.	SE-4140
15	UNIVERSAL HUB PLATE, 3/8"-16.	SE-4141
16	CABINET HUB/MOUNTNG BRACKET	SE-0425
17	SINGLE MOUNTING HUB	SE-0384
18	CABINET HUB/SIGN BRACKET	SH-0214
19	HORIZONTAL WOOD POLE HUB	SE-4079
20	HORIZ. WOOD POLE HUB W/ Downhole	SE-4080
21	MOUNTING BRACKET	SE-0109
22	ADAPTER, 3½" O.D. Pole	SE-4078
23	SWEEP ELBOW, Alum.	SE-0578
24	MOUNTING BRACKET, 4½" O.D. Pole	SE-0104
25	CLOSURE PLATE, Alum.	SE-0117
26	HUB GASKET	SE-0119
27	HUB GASKET	SE-0148
28	SIGN BRACKET, Flared Leg	SE-4002
29	CABINET MTG. BRACKET, 4-1/2" x 3-3/8" x 4-1/2"	SE-0141
30	CABINET MTG. BRACKET, 4-1/2" x 3-3/8" x 2-7/8"	SE-0113
31	CABINET MTG. BRACKET, 6-3/4" x 3-1/2" x 2-1/16"	SE-0118
32	CABINET MTG. BRACKET, 6-3/4" x 4-1/2" x 2-1/16"	SE-0120
33	CABINET MTG. BRACKET, 6-3/4" x 6" x 2-1/6"	SE-0126
34	SETSCREW, Sq. Hd., ¼"-20 x ½"	FS-3218
35	SETSCREW, Sq. Hd., ¼"-20 x 5/8"	FS-3205

320 S.W. 18th St. • Edmond, Oklahoma 73013 • (405) 340-3434 • FAX: (405) 340-3435 • E-mail: pelco@pelcoinc.com

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	754 Phase Selector Model

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 327 Opticom Discriminator Module

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

3M

Opticom™

Priority Control System

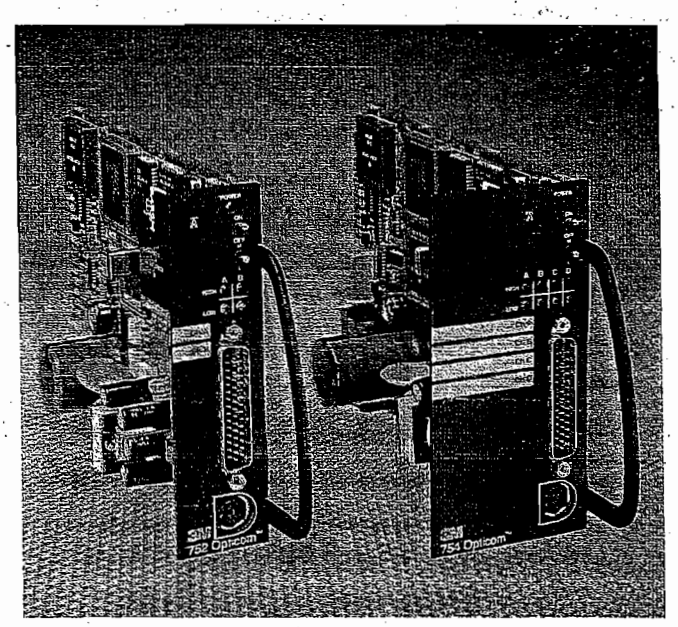
Phase Selector Models 752N and 754N

Reporter Series: Opticom System Matched Component Products

Description

The Model 752N phase selector is a plug-in *two-channel*, dual priority, encoded signal device designed for use 3M™ Opticom™ Priority Control System emitters and detectors. The Model 754N phase selector is a plug-in *four-channel*, dual priority, encoded signal device designed for use with Opticom emitters and detectors. The 752N/754N phase selectors are designed for use with NEMA traffic controllers that do not have internal preemption capabilities. Phase selectors are powered from AC mains and contain their own internal power supply to support Opticom detectors. A Model 760 Card Rack is required.

Models 752N and 754N recognize and discriminate among three distinct Opticom emitter frequency rates via Opticom detectors: Command priority, Advantage priority and probe vehicles. Within each of these three frequency rates the phase selectors further discriminate among 10 classes of vehicle identification codes, with 1000 individual vehicle codes per class — 10,000 total per frequency rate.



— Models 752N and 754N

Models 752N and 754N internally record each activation of the system. Each entry contains:

- **Intersection name**
- **Date and time of the activity**
- **Vehicle class code of the activating vehicle**
- **Activating vehicle's ID number**
- **Channel called**
- **Priority of the activity**
- **Final green signal indications displayed at the end of the call**
- **Time spent in the final greens**
- **Duration of the activation**
- **Near intersection location information**

The Models 752N and 754N also include RS232 interface capability to communicate with computers or controllers. Optional interface software is available for system setup and maintenance.

The primary Opticom detector inputs and power outputs are on the card edge connector. Two additional auxiliary detector inputs are available for each channel through a front panel connector. The connector also contains signal indication sensing inputs.

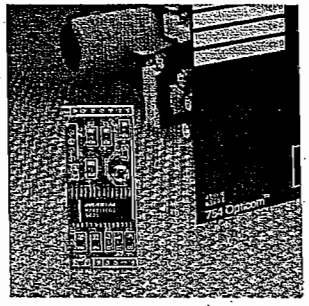
Each channel delivers a constant output for Command (high priority) activation and a pulsed output for Advantage (low priority) activation. A high priority signal received on any channel will override any low priority activation.

The probe vehicle frequency does not place a call request to the signal controller, but does log vehicles by ID number when they are in range.

Features

- **Four channels of detection with the 754N**
- **Two channels of detection with the 752N**
- **Designed for use with NEMA controllers without internal preemption capabilities**
- **Two auxiliary detectors per channel**
- **Green sensing**
- **Solid state circuitry for long life and reliability**
- **Compatible with encoded signal and non-encoded signal Opticom emitters**
- **Command and Advantage priority, as well as probe vehicle discrimination**
- **"First-come, first-served" priority within each priority level**
- **Priority by class can be implemented via the interface software**
- **Plugs directly into CA/NY Type 170 input files**
- **Signal intensity threshold can be automatically set using an encoded emitter**
- **User adjustable signal intensity threshold from 200 to 2500 feet of operation**
- **Easy installation**
- **Compatible with most traffic controllers**
- **Computer based interface**
  - — RS232 communications front port and backplane
  - — User selected communications baud rate 1200 to 9600 bits per second
  - — Customizable signal intensity thresholds
  - — Customizable ID code validation
  - — Flexible programming options for priority control parameters
  - — Detailed current Opticom system parameter information
  - — History log of most recent Opticom system activities (1000 entries)
- **30,000 frequency/class/vehicle code ID combinations**
- **Front panel switches and diagnostic indicators for testing**
- **Erasable write-on pads for phase or movement labeling**
- **Unit can be operated without computer configuration**
- **Crystal controlled circuitry**
  - — Accurate optical signal recognition circuitry
  - — Precise output pulse
  - — Definitive call verification
- **Regulated detector power supply**
- **Optically isolated outputs**
- **Multi-function test switch**
  - — High and low test calls
  - — Reset to default parameters
  - — Range setting
  - — Diagnostic test
- **Advanced built in diagnostics and testing**
- **Tested to NEMA and CalTrans environmental and electrical test specifications**

Accessories



Communications Daughter Board

- **IS Link interface software package**
- **Opticom communications daughter board**

Pin Index

- **Card Edge – 44 pin STD on the main PCB**

Pins	Function
A	Ground
D	Channel A primary detector input
E	Detector 24 VDC power output
F	Channel A output, collector (+)
H	Channel A output, emitter (-)
J	Channel B primary detector input
K	Detector Ground
L	Earth Ground
M	AC - (in)
N	AC + (in)
P	Channel C primary detector input (Not used 752N)
R	Detector 24 VDC power output
S	Channel C output collector (+) (Not used 752N)
T	Channel C output emitter (-) (Not used 752N)
U	Channel D primary input (Not used 752N)
V	Detector ground
W	Channel B output collector (+)
19	TxD (output)
X	Channel B output emitter (-)
Y	Channel D output collector (+) (Not used 752N)
21	RxD (input)
Z	Channel D output emitter (-) (Not used 752N)

- **Din connector – mini-6 pin female (front panel)**

Pins	Function
1	RxD (data in)
2	Ground
3	TxD (data out)
4	RTS
5	CTS
6	Shield

- **D-Shell connector – 44 pin male (front panel)**

Pins	Function
1	Phase 1 green input
2	Phase 2 green input
3	Phase 3 green input
4	Optoisolator return
5	Optoisolator return
6	Not used
7	NEMA Phase 2 output
8	NEMA Phase 8 output
9	NEMA Phase 6 output
10	Confirmation light 1
11	Confirmation light 2
12	Preemption inhibit
13	Channel A aux. detector 2 input
14	Channel B aux. detector 2 input
15	Channel B aux. detector 1 input
16	Phase 4 green input
17	Phase 5 green input
18	Phase 6 green input
19	24 VDC power output
20	24 VDC power output
21	NEMA Phase 4 output
22	NEMA Phase 3 output
23	NEMA Phase 1 output
24	NEMA Phase 7 output
25	NEMA Phase 5 output
26	Confirmation light 3
27	Confirmation light 4
28	Channel A aux. detector 1 input
29	Channel C aux. detector 2 input (Not used 752N)
30	Channel C aux. detector 1 input (Not used 752N)
31	Phase 7 green input
32	Phase 8 green input
33	Common green input
34	Detector Ground
35	Detector Ground
36	Not used
37	Not used
38	24 VDC input
39	NEMA manual enable control
40	NEMA interval advance
41	NEMA coordination isolation
42	NEMA free
43	Channel D aux. detector 2 input (Not used 752N)
44	Channel D aux. detector 1 input (Not used 752N)

Operating Parameters

—Four dual priority, and probe frequency, channels (754N)

—Two dual priority, and probe frequency, channels (752N)

—"First-come, first-served" for vehicles with the same priority

—Higher priority will always override lower priority

—Direct interface with NEMA controllers lacking internal preemption capabilities

—Opticom detector input(s)...one per channel on the card edge connector and two auxiliary per channel through the Auxiliary function harness

—Optional interface software allows flexible programming options and call history

—Solid state indicators

- Power on
- High signal/call per channel
- Low signal/call per channel

—Multi function test switch enables diagnostics and test calls to each channel

—Voltage . . . 89 to 135 VAC, 60Hz

—Temperature . . . -37° C to +74° C

—Humidity . . . 5% to 95% relative

Physical Dimensions

Length	*7.0 in. (17.8 cm)*
	8.2 in. (20.8 cm) including handle
Width	*(752N) 1.1 in. (2.8 cm)*
	(754N) 2.3 in. (5.8 cm)
Height	*4.5 in. (11.4 cm)*
Weight	*(752N) 0.53 lbs. (240 g)*
	(754N) 0.57 lbs. (260 g)

Important Notice to the Purchaser

THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

3M will repair or replace any Opticom™ Priority Control System component found to be defective in materials or manufacture within five (5) years from the date of shipment from 3M. See "Summary of Warranty Coverage" for details of extended five year coverage under the Opticom 5/10 warranty. This warranty shall not apply to incandescent lamps or to any system component which has been (1) repaired or modified by persons not authorized by 3M; (2) subjected to misuse, neglect or accident; or (3) has been damaged by extreme atmospheric or weather-related conditions.

In no event shall 3M be liable in contract or in part for any injury, loss, or damage, whether direct, indirect, incidental, special or consequential, arising out of the use or inability to use the Opticom system or any component thereof. THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE.

3M has designed, developed and tested each Opticom priority control system component as part of a matched component system. 3M makes no warranty whatsoever concerning the reliability or safety of Opticom system components when used with non-Opticom system products. 3M shall not be responsible for any Opticom component which 3M determines has been damaged in whole or in part by its use with a non-Opticom system product.

Sale and use of the Opticom priority control system is expressly restricted to authorized agencies of government customers, within their respective jurisdictions. However, because the optical signal generated by the Opticom system is not exclusive, 3M cannot ensure exclusive activation by purchaser. Authorized users who desire to use or coordinate use of the Opticom system with that of other jurisdictions must first obtain the prior written approval of each authorized user in the jurisdiction where use is sought.

3M

Intelligent Transportation Systems
3M Safety and Security Systems Division

3M Center, Building 225-4N-14
St. Paul, MN 55144-1000

1-800-328-7098
1-800-224-2085 fax

612-575-5794
612-737-1055 fax

http://www.mmm.com/its

3M Canada Inc.

P.O. Box 5757
London, Ontario, Canada
N6A 4T1

1-800-3MHELPS
519-451-2500

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	Composite, 4 Conductors.

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 328 Belden 8281 Coaxial Cable
Item 329 3 Cndr Signal Cable (14AWG)(IMSA20-1)

COPIES TO:

Sincerely,

Jack Owen
Project Coorddinator

P.O. BOX 381788 • DUNCANVILLE, TX 75138 • PHONE 1-972-296-6324 • FAX 1-972-780-7411

ISOTEC INC.

QUALITY WIRE AND CABLE

PRODUCT SPECIFICATION

ISOTEC PART/QUOTE NUMBER: X591787-00
CUSTOMER PART NUMBER:

DESCRIPTION: *COMPOSITE, 4 CONDUCTORS, 2 ELEMENTS: ELEMENT #1 16 AWG 3 CONDUCTORS 19/29 BARE COPPER, .025" HIGH DENSITY POLYETHYLENE, CM WRAP, .045" POLYETHYLENE JACKET BLACK IMSA 20-1 (indent print), ELEMENT #2 20 AWG 1 CONDUCTOR SOLID BARE COPPER, 83% SOLID POLYETHYLENE, 98% TINNED COPPER BRAID, OVERALL 98% TINNED COPPER BRAID, .035" POLYETHYLENE JACKET BLACK, .025" POLYETHYLENE JACKET BLACK OVER ENTIRE CABLE (Indent Print Legend) 8281163CR201JKT*

	ELEMENT1	ELEMENT2		
CONDUCTOR/PAIR COUNT:	3 CONDUCTORS	1 CONDUCTOR	**JACKET THICKNESS:**	.025"
GUAGE & STRANDING:	16 AWG 19/29 BC	20 AWG SOLID BC	**JACKET COLOR:**	BLACK
PRIMARY INSULATION TYPE:	HDPE	LDPE	**JACKET MATERIAL:**	PE
INSULATION THICKNESS:	.025"	.080"	**RIPCORD:**	YES
COLOR CODE:	BLACK, WHITE, GREEN	NATURAL	**NOMINAL O.D.:**	.592"
SHIELD:	N/A	N/A	**VOLTAGE RATING:**	300V
TAPE:	CLEAR MYLAR	N/A	**TEMP. RATING:**	60C
DRAIN WIRE:	N/A	N/A	**UL TYPE OR STYLE:**	N/A
BRAID:	N/A	TC DOUBLE BRAID 98%	**PRINT LEGEND:**	N/A
CAPACITANCE:	N/A	N/A	**PACKAGING:**	TBA
JACKET TYPE:	PE	POLYETHYLENE	**COPPER WEIGHT:**	59.87 LBS/MFT
JACKET COLOR:	BLACK	BLACK	**SHIPPING WEIGHT:**	147 LBS/MFT
JACKET THICKNESS:	.045"	.035"		
PRINT LEGEND:	ISOTEC, INC. (MFG YEAR OF 2001) 16 AWG 3C IMSA 20-1 600V	N/A		
NOMINAL O.D.:	.322"	.305"		
OVERALL PRINT LEGEND:	ISOTEC, INC. 8281163CR201JKT			

NOTES: Shipping Tolerance: +/- 10%
Length Tolerance: +/- 10%

All wall thickness and diameter as well as electrical information is nominal.

ACCEPTANCE OF ABOVE DESIGN:_____ DATE:_____

Isotec makes every effort to provide accurate specifications. Printing errors are subject to correction.
Standard product specifications are subject to change without notice. Contact your Isotec sales person for current specifications.

Traffic Signal Inc.
8290 Moberly Lane
Dallas, TX 75227
Phone:(214)275-5585
Fax:(214)275-6295

PACKING LIST

DATE
7/16/2002

BILL TO

SHIP TO
DURABLE SPECIALTIES 1211 SOUTH ALEXANDER DUNCANVILLE, TX 75137 TAG:928

P.O. NO.	SHIP VIA	F.O.B.
928	PREPAID	

ITEM	DESCRIPTION	BACK ORDER	QTY
TGS50MB	8281E + TGS COMPOSITE 1X5000'		5,000

Power Cable and Comm. Cable for VIVID's

DURABLE SPECIALTIES, INC.

TO: Town of Addison Public Works
P.O. Box 9010
Addison, Texas 75001-9010
ATTN: Dave Wilde

PROJECT: Inwood/South Quorum Access - Phase II
LOCATION: Inwood Connection
JOB NO: DSI #323
DATE: 8-14-3

WE TRANSMIT: ☑ Herewith ☐ Under Separate Cover ☐ The following: ☐ Prepared by:

COPIES	DESCRIPTION OR ITEM
1	Camera
1	Camera Bracket

THE ATTACHED IS SUBMITTED FOR:

☐ Comments ☐ Correction & resubmission ☐ Your use ☐ Field Use
☑ Approval ☐ Estimate ☐ Your Files ☐ Fabrication
☐ Approved as noted ☐ Field Check ☐ Pricing only ☐ Price and Proceed

COMMENTS: Materials to be used for Item 333 Video Camera and Mounting Hardware

COPIES TO:

Sincerely,

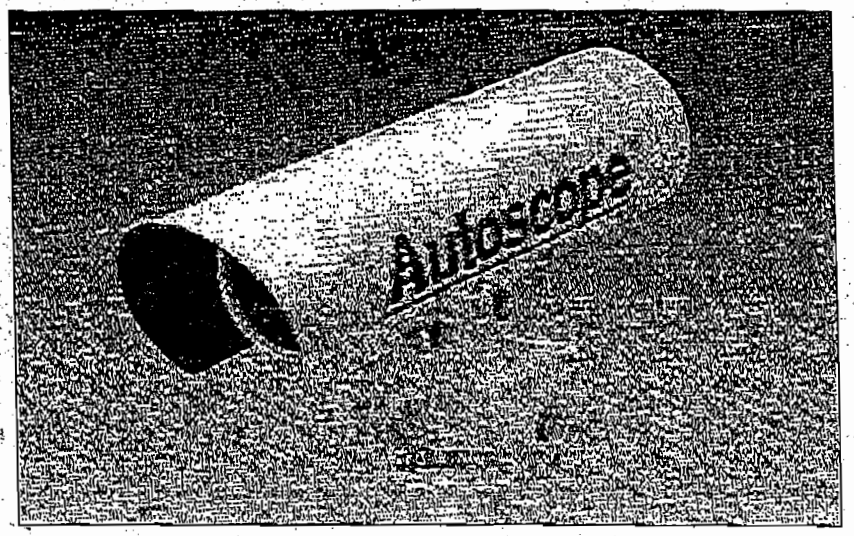
Jack Owen
Project Coorddinator

Distributed By:
Paradigm Traffic Systems,Inc.
PO Box 14509
Ft. Worth,Tx. 76117-0509
(817) 831-9406 fax (817) 831-9407

Autoscope®

Autoscope Image Sensor - Model AISBW Zoom

Imagine B&W plus color, a zoom lens, easy setup, and optimized traffic performance accuracy in an economical Autoscope Image Sensor



Features

- Designed for wide-area machine vision vehicle detection
- 12X zoom lens & color imager
- Zoom and setup control over coax
- Auxiliary color output BNC to separate coax cable
- No streaking or blooming from bright light sources (head lights)
- Easy mounting from bucket truck
- Rugged, environmentally-sealed enclosure
- Space age faceplate heater
- Low power consumption
- High resolution for accuracy
- High sensitivity for accurate detection at low light levels
- Auto-gain circuitry for improved detection in varying light conditions

Description

The Autoscope® Image Sensor, is a high resolution, monochrome image sensor, especially optimized as a video source for the Autoscope 2004 MVP (machine vision processor). For special applications, color video is available from a separate BNC output.

The Autoscope Image Sensor produces consistent video quality in all weather, lighting, and traffic congestion levels common to the traffic industry. The image sensor has high sensitivity for accurate vehicle detection at night and other times of low light levels. The solid-state design provides maximum hardware reliability and consistent 24-hour operation. The color image sensor minimizes streaking and blooming from bright light sources like headlights and wet pavement that could adversely affect detection performance.

During setup, the 12x zoom auto-iris lens quickly adjusts to a field of view best for the detection objectives. A hand-held controller or a coax modem for a laptop adjusts the zoom. Control of the zoom is over the coax cable, thus minimizing the number of wires up the pole.

A sealed and optionally pressurized barrel protects the image sensor against the demands of the outdoor environment. An adjustable weather shield helps minimize rain, snow and ice on the heated faceplate, reducing glare and improving video contrast. Rotating the barrel helps improve detection accuracy.

A variety of available mounting brackets allow easy installation of the Autoscope Image Sensor on existing poles, mast arms, or other structures. The unique bracket design speeds installation by minimizing loose parts and eliminating steps in the setup process.

3360 E. La Palma, Anaheim, CA 92806-2856
Tel: (714) 630-3700 • Fax: (714) 630-6349
Email: sales@econolite.com
Web site: http://www.econolite.com

ECONOLITE
CONTROL PRODUCTS, INC.

Benefits

- Flexibility of application
- Reliable detection performance
- Ease of installation and cost-effective maintenance
- Light weight
- Uses standard AIS cables

Black & White Plus Color

The Autoscope Image Sensor outputs black and white video as a source for the Autoscope 2004 MVP. Compared to color video, black and white video suffers less than color video over long coax runs, like at an intersection, assuring good detection performance. However, modern color technology has surpassed black and white camera performance overall.

The auxiliary color output is for traffic monitoring and surveillance. An appropriate coax cable connects to the color BNC connector on the rear of the image sensor.

Faceplate Heater

New technology has greatly reduced the power consumption of the AIS. By applying heat directly to the faceplate, the AIS can keep the faceplate clear in extreme conditions with much less power. As an optical failsafe, the Autoscope Supervisor software provides Contrast Detectors to compensate for non-electrical failures in much the same way as the electrical failsafe turns on detectors on failure of an electrical component.

Zoom Control

New technology to adjust the zoom lens eliminates adapter cables or extra control wires in the pole. This greatly simplifies installation. Zoom and camera controls travel to the AIS along the B&W coax cable.

The installer will need one of two new tools. The Handheld Zoom Controller plugs into the coax cable at the interface panel and also provides another port for a monitor. The Coax Modem plugs in similarly, but also provides a laptop serial connection to emulate the control buttons on the Handheld Controller.

Specifications

Lens
- 12x continuous focus/zoom
- Horizontal: 7 to 73 degrees
- Vertical: 5 to 58 degrees

Imaging Device
- ½" color CCD

Video Formats Supported
- RS170, NTSC, CCIR and PAL

Resolution
- NTSC
  - 460 TVL Horizontal @ center
  - 350 TVL Vertical @ center
- PAL
  - 450 TVL Horizontal @ center
  - 400 TVL Vertical @ center

Synchronization
- Crystal lock

Sensitivity - At Lens
- Full video, no AGC, 1.0 lux

Signal To Noise Ratio
- >48 dB

Interfaces
- Connector: MS 14418P
  - B&W video output
- Connector: BNC
  - Auxiliary color video output

Housing & Sunshield
- Zoom lens image sensor sealed in watertight and dust-tight NEMA 4 housing
- Thermostatically controlled faceplate heater
- Adjustable weather and sun shield with drip guard

Power
- RS170, NTSC: 105 VAC, 60 Hz
- CCIR, PAL: 104 VAC, 50 Hz
- 10 to 28 VDC
  - 10 watts with heater ON
  - 5 watts with heater OFF
- Optional lower or higher voltage

Dimensions
- Mounting: Standard camera bracket kit, top provided
- Housing enclosure
  - 2.5" diameter x 10" long
- Weather sunshield: 16" long

Weight
- 3 lbs, 10 oz

Ambient Temperature Limits
- -34°C to +60°C
- -40°F to +140°F

Humidity Limits
- 10% to 100% relative humidity per MIL-E-4001, paragraph 4.7.24

Options
- Video output
- Power source
- Sealed or pressurized enclosure

Warranty
- Two-year warranty
- Extended warranty package available

Product Support
- Product support and training by factory trained Autoscope Technical Support specialists

ECONOLITE CONTROL PRODUCTS, INC.
3360 E. La Palma, Anaheim, CA 92806-2856 ■ P. O. Box 6150, Anaheim, CA 92816-0150
Tel: (714) 630-3700 ■ Fax: (714) 630-6349 ■ Email: sales@econolite.com ■ www.econolite.com

010405 01-10253M-01

SPECIFICATION SHEET

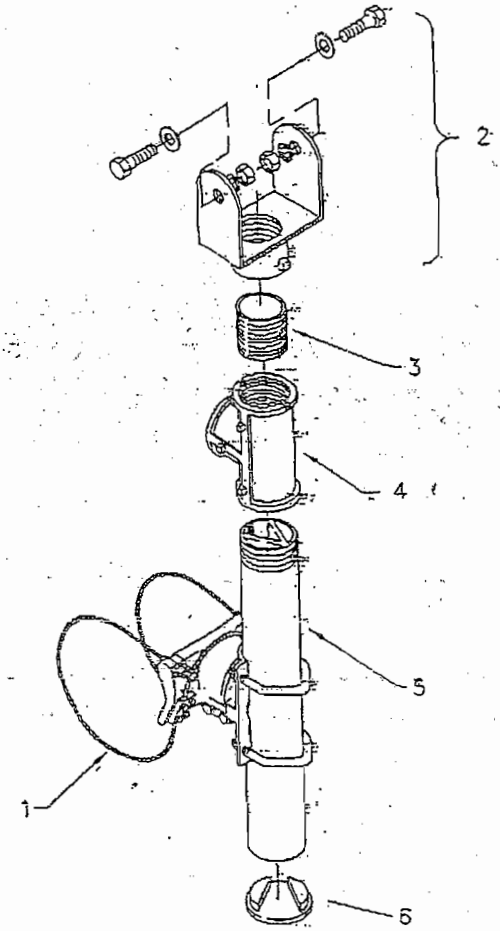
PELCO PRODUCTS, INC.
320 S. W. 18TH EDMOND, OKLAHOMA 73013 (405) 340-3434 FAX (405) 340-3439

TO: Shelly
From: Shelley

REF.: EXTENDED MAST ARM SENSOR BRACKET, TILT & PAN FOR ITERIS CAMERA, CABLE MOUNT ASTRO-BRAC W/ TEE

PELCO NO.: AB-0166-L-L

AS-0166-LL



Distributed By:
PARADIGM Traffic Systems, Inc.
P. O. Box 14509
Fort Worth, TX 76117-0509
817-831-9406 fx: 817-831-9407

NOTE:
PLEASE SPECIFY SUPPORT TUBE AND CABLE LENGTH REQUIRED.
EXAMPLE: AB-0166-1-62 FOR 23" TUBE & 62" CABLE.

SUPPORT TUBE	
-1	23"
-2	37"
-3	46"
-4	58"
-5	74"

CABLE LENGTH	POLE DIA.
62"	4"-8.6"
84"	4"-11.6"
PS"	4"-14.5"

MATERIAL COATING LEGEND	
COATING	CODE
Aledine	ALO
Black Oxide	BOX
Brass	BRS
Chrome	CRM
Galvanized	GLV
No Coating	PNC
Zinc, Bright	ZN1
Zinc, Yellow	ZN2
Zinc, Ultra-Seal	ZN3
Painted	PXX

ITEM	PELCO PART NO.	DESCRIPTION	COAT	QTY
	AB-0166-L-L	MAST ARM SENSOR BRACKET, TILT & PAN FOR ITERIS CAMERA, CABLE MOUNT ASTRO-BRAC W/ TEE		1
1	AB-3009-L	ASTRO-BRAC CLAMP KIT, CABLE MOUNT	ALO	1
2	SH-0514	EXTENDED CAMERA MNT. SUB-ASSY. FOR ITERIS CAMERA	ALO	1
3	SE-0309-02.125	ALLTHREAD NIPPLE, ALUM., 1½"-11½"NPS x 2-1/8"	PNC	1
4	SE-0458	SERRATED TEE, ALUM., 1½"	PNC	1
5	AB-2003-L	GUSSET TUBE, ALUM. W/ VINYL INSERT, 1½" x LENGTH	ALO	1
6	AB-0260	TUBE CAP	PXX	1

3/30/98; 4/2/98; 11/11/98; 12/3/99; 9/18/00; 11/2/00

Oncor
Distribution Division
301 S. Harwood
Suite 6S
Dallas, TX 75201

9/26/2002

Luke Jalbert
Public Works Dept.
P.O. Box 9010
Addison, Texas 75001-9010

Re: Inwood/S. Quorum Phase II

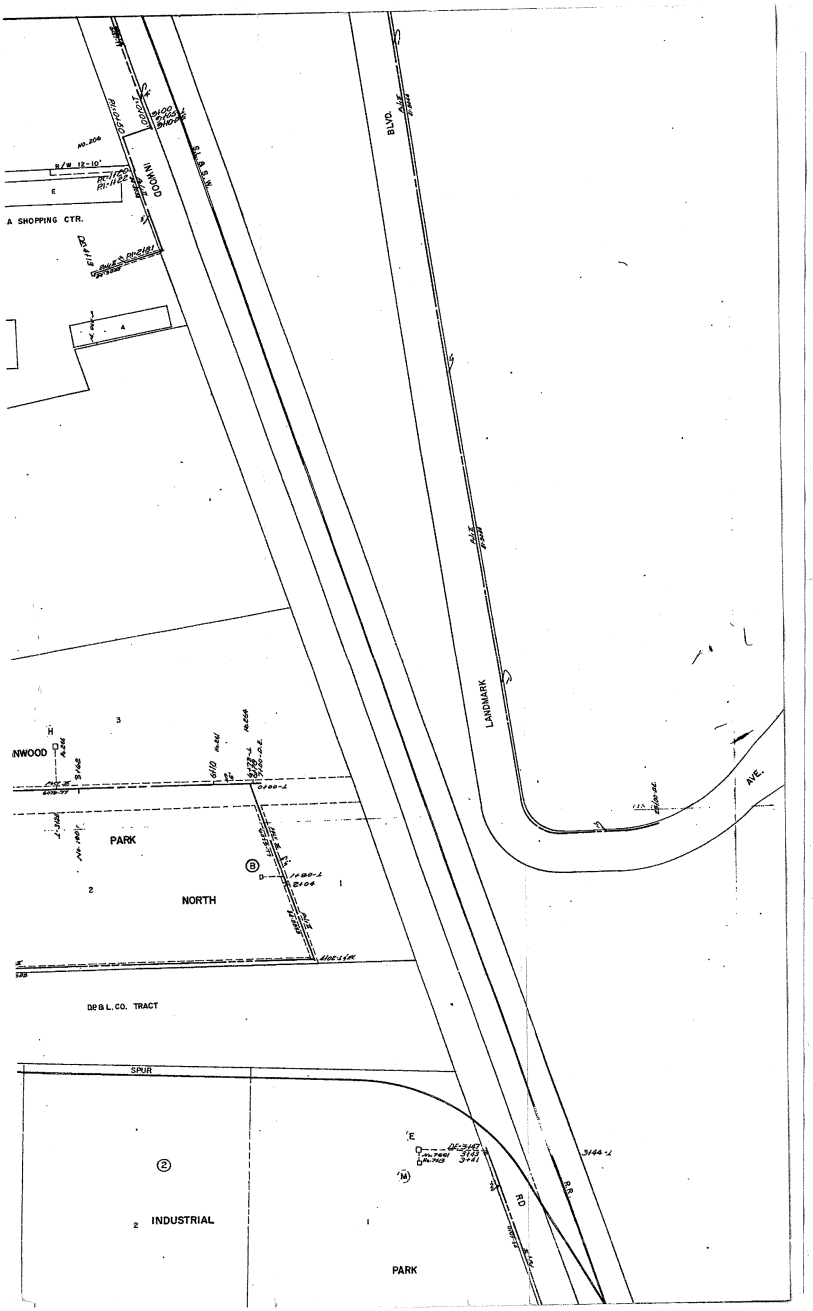
Dear Mr. Jalbert:

I have reviewed your plans for the Inwood Rd. project. It looks like we will be clear of the proposed work. Please find inclosed a map of the area showing our gas mains. If I can be of any further assistance please call and/or email me.

Sincerely,

Kyle Bowman

Kyle Bowman
214-875-2247
kbowman1@oncorgroup.com


INWOOD
BLVD.
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A SHOPPING CTR.
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NORTH
D.P.& L. CO. TRACT
SPUR
INDUSTRIAL
PARK
RD