THIS ESCROW AGREEMENT (this "Agreement") is entered into as of the 3rd day of December, 2014, by, among and between
("Escrow Agent"), City of Round Rock, Texas ("City"), and Meridian World School, LLC, a Texas limited liability company and open-enrollment charter school ("School") (City and School are each referred to as a "Party" or collectively as the "Parties").

## Recitals

A. School operates an open-enrollment charter school campus at 2555 North Interstate Highway 35, Round Rock, Texas 78664 (the "Campus").
B. School has submitted certain plans, information, and data to City for the improvement and renovations to the Campus for the purpose of better serving the School's student body (the "Campus Renovations"), and requested approval of the same from City to commence the Campus Renovations.
C. As part of its review process of the Campus Renovations plan, information and data, City had a professional engineer complete a Meridian School Traffic Impact Letter Report dated July 14, 2014, a copy of which is attached hereto as Exhibit A and incorporated for all purposes herein (the "TIS"), to project the impact the Campus Renovations would have on the flow of traffic in the surrounding area.
D. The TIS recommended a number of public infrastructure expansions ("Public Expansions"), which are intended to mitigate the impact of the Campus Renovations on the flow of traffic in the surrounding area.
E. The TIS estimated the total costs for construction, installation, and completion of the Public Expansions, including any impact fees relating thereto, to be $\$ 1,182,000.00$.
F. The TIS further estimated that School's proportionate share of the total costs of the Public Expansions to be approximately thirty-three and one-half percent (33.5\%).
G. City has conditioned its (i) final approval of School's development plans for the Campus Renovations, (ii) issuance of permits to construct the Campus Renovations, and (iii) issuance of permits to occupy the Campus Renovations on the School making a pro-rata contribution toward the construction of the Public Expansions.
H. The School's Board of Directors ("the Board"), intends that the School be a good institutional citizen, and a good neighbor to both the surrounding businesses and residences, and the citizens of Round Rock who use the adjoining thoroughfares. The Board finds that construction, installation, and completion of the Public Expansions is intended to create a safer environment for its students and employees, and further its goal of being a good institutional citizen.
I. The Parties agree that the terms and conditions of this Agreement will fully resolve and satisfy School's obligations and liability as to the Public Expansions.

## Agreement

In consideration of the premises and of the mutual covenants and undertakings hereinafter made, the Parties hereto agree as follows:

1. Obligations of Parties. The Parties shall complete the following obligations:
a. City's Construction of Public Expansions. City hereby contractually stipulates and agrees to ensure the completion of the construction and installation of certain Public Expansions attributable to the Campus Renovations, to-wit; the completion of design and environmental studies required for the addition of a turn lane along the $\mathrm{IH}-35$ access road adjacent to the School, with access to the School from the turn lane, in accordance with the TIS on or before November 1, 2018(the "Public Expansions Completion Date"). Any Public Expansion not completed by the Public Expansions Completion Date will be the full responsibility and liability of City to complete in as expeditious a manner as possible, with City acknowledging and stipulating that it has a contractual responsibility to complete such Public Expansion(s) by the Public Expansions Completion Date and that School will be fully and completely released of any obligations or liabilities related to the costs associated with such Public Expansion(s) notwithstanding anything to the contrary detailed herein.
b. School's Responsibility of Public Expansions and Substitute Public Expansions. The Parties hereby acknowledge, agree and stipulate School's responsibility and liability for the costs of construction, installation, and completion of all of the Public Expansions, attributable to the Campus Renovations will be $\$ 150,000$.
c. No Further Necessary Public Infrastructure Expansions. City acknowledges, agrees and contractually stipulates that no further public infrastructure expansions or improvements other than the Public Expansions will be conditions for City's (i) final approval of School's development plans for the Campus Renovations, (ii) issuance of permits to construct the Campus Renovations, and (iii) issuance of permits to occupy the Campus Renovations. An outline of School's development plan is attached hereto as Exhibit B.
2. Escrow of Funds. School will deposit a total of $\$ 150,000.00$ with Escrow Agent (the "Escrowed Funds") in accordance with the terms contained in this Section 2.
a. Timing of Deposits. School will deposit the Escrowed Funds with the Escrow Agent as per the following schedule:
i. An initial $\$ 37,500.00$ by November 1, 2015;
ii. An additional $\$ 37,500.00$ by November 1, 2016;
iii. An additional $\$ 37,500.00$ by November 1, 2017; and
iv. A final $\$ 37,500.00$ by November 1, 2018 .
b. Confidentiality by Escrow Agent. Escrow Agent agrees to accept the Escrowed Funds and agrees to disburse the Escrowed Funds only in accordance with the terms of this Agreement. Escrow Agent hereby agrees to place the Escrowed Funds in an interest bearing account, for the benefit of City and School, with a federally insured bank, with any applicable fees to be paid by School. Escrow Agent shall be entitled to no compensation for Escrow Agent's performance of its obligations hereunder. Furthermore, except as required by applicable law or court order, Escrow Agent shall keep the terms of this Agreement and any related agreements to the Agreement confidential and not disclose any information concerning the same to any third party except Escrow Agent's employees who need to know the information to perform their assigned duties in connection with this Agreement, Escrow Agent's attorneys, or regulatory authorities.
c. Receipt of Invoices and Lien Waivers Prior as Condition to Release of Payment. Upon the completion of a Public Expansion or Substantial Public Expansion, City must provide School and Escrow Agent with copies of all invoices related to such Public Expansion or Substantial Public Expansion, including proof of City's payment of such invoice(s) and copies of unconditional lien waivers from all of the subcontractors/suppliers and general contractor performing the construction, installation, and completion of such Public Expansion or Substantial Public Expansion subject to the invoice(s), as a condition to School's approval of the release of and City receiving any portion of the Escrowed Funds. Within ten (10) days of the receipt of written confirmation from School of the sufficiency of such items, Escrow Agent shall immediately disburse the portion of the Escrowed Funds to City.
d. Release of Escrowed Funds Back to School. If City acknowledges in writing to School and Escrow Agent that City will not be able to complete any Public Expansion or Substantial Public Expansion, as applicable, then that portion of the Escrowed Funds allocated to such Public Expansion or Substantial Public Expansion shall be immediately disbursed to School within ten (10) days of such written notification by City. Furthermore, any Escrowed Funds still held by Escrow Agent as of the Public Expansions Completion Date or Final Completion Date, whichever is applicable, will be immediately distributed to School, regardless.
e. City and School agree that the following provisions shall control with respect to the right, duties, liabilities, privileges, and immunities of Escrow Agent:
i. Escrow Agent is not a party to, and is not bound by, or charged with notice of, any agreement out of which this escrow may arise, other than this Agreement.
ii. Escrow Agent acts hereunder as a depository only, and is not responsible or liable in any manner whatever for the sufficiency, correctness, genuineness or validity of the subject matter of the escrow or any part thereof, or for the form or execution thereof, or for the identity or authority of any person executing or depositing the same.
iii. In the event Escrow Agent becomes involved in litigation in connection with this escrow, City and School agree, to the extent permitted by law, to indemnify and save Escrow Agent harmless from all loss, costs, damages, expenses and attorney's fees suffered or incurred by Escrow Agent as a result thereof. The obligations of City and School under this paragraph shall be performable at the office of Escrow Agent in Williamson County, Texas.
iv. Escrow Agent shall be protected in acting upon any written notice, waiver, consent, certificate, receipt, authorization, power of attorney or other paper or document which Escrow Agent in good faith believes to be genuine and what it purports to be.
v. Escrow Agent shall not be liable for anything which it may do or refrain from doing in connection herewith, except its own negligence or willful misconduct. Notwithstanding anything to the contrary contained herein, Escrow Agent will not be entitled to the indemnification by City and School as detailed in this Section for any and all, without limitation, claims, demands, expenses, fines, losses, costs, damages or fees (including, without limitation, attorney's fees) attributable to the Escrow Agent's negligence or willful misconduct.
vi. Escrow Agent may consult with legal counsel in the event of any dispute or question as to the construction of any of the provisions hereof or its duties hereunder, and it shall incur no liability and shall be fully protected in acting in accordance with the opinion and instruction of such counsel if such counsel is board certified in commercial real estate by the Texas Board of Legal Specialization.
vii. In the event any claims or demand upon Escrow Agent are made in connection with any provision of this Agreement, or in the event the Escrow Agent, in good faith, shall be in doubt as to what action it
should take hereunder, Escrow Agent may, in its sole discretion, refuse to comply with any claims or demands on it, or refuse to take any other action hereunder, so long as such disagreement continues or such doubt exists, and in such event, the Escrow Agent shall not be or become liable in any way or to any person for its failure or refusal to act, and the Escrow Agent shall be entitled to continue to so refrain from acting until (i) the rights of all interested parties shall have been fully and finally adjudicated by a court of competent jurisdiction, or (ii) all differences shall have been adjusted and all doubt resolved by agreement among all of the interested parties and Escrow Agent shall have been notified thereof in writing signed by all such parties. Notwithstanding the foregoing, in the event Escrow Agent shall be in doubt as to what action it should take hereunder at any time during the term of this Agreement, Escrow Agent shall have the right, in its sole and absolute discretion, to file an interpleader action in the District Court of Williamson County, Texas, and interplead all documents and instruments held by it into the registry of said court, and in such event, all costs, expenses and attorney's fees incurred by Escrow Agent in filing such interpleader action shall be paid equally by City and School or from the funds so interplead. Furthermore, the parties hereto for themselves, their heirs, legal representatives, successors and assigns do hereby submit themselves to the jurisdiction of said court and do hereby appoint the then clerk, or acting clerk, of said court as their agent for service of all process in connection with such proceeding. The rights of Escrow Agent under this paragraph are cumulative to all other rights which it may have by law or otherwise.
3. No Third Party Beneficiary. This Agreement is intended solely for the benefit of the Escrow Agent, City and School, and said parties respective successors and assigns, and no third party shall have any rights or interest in the Escrowed Funds or this Agreement. Nothing contained in this Agreement shall be deemed or construed to create an obligation on the part of the Escrow Agent, City and/or School to any third party nor shall any third party have a right to enforce against the Escrow Agent, City and/or School any right that any of the other parties to this Agreement may have under this Agreement.
4. Dispute Resolution. The Parties agree to negotiate in good faith in an effort to resolve any dispute related to this contract that may arise. If the dispute cannot be resolved by negotiation, then the parties will submit the dispute to mediation before resorting to litigation and will equally share the costs of a mutually acceptable mediator. This paragraph survives the termination of this Agreement. This paragraph does not preclude a party from seeking equitable relief from a court of competent jurisdiction.
5. Notices. Any notices required or permitted to be given under this Agreement shall be in writing and shall be deemed to be given when actually received by that Party (i) if delivered by hand, facsimile transmission or other electronic means (e.g. email communication); or (ii) if sent by a nationally recognized overnight courier, and addressed to the party in question
at the facsimile number or address indicated herein, or to a different facsimile number or address as previously given in a notice to the other parties.

## City:

City of Round Rock
Attn: City Manager
300 East Main Street
Round Rock, Texas 78664
School:
Meridian World School, LLC d/b/a Meridian World School
Attn: Karalei Nunn
2555 North Interstate Highway 35
Round Rock, Texas 78664
With a copy to:
Schulman, Lopez \& Hoffer, LLP
Attn: Joseph E. Hoffer
517 Soledad Street
San Antonio, Texas 78205
Telephone: (210) 538-5385
Facsimile: (210) 538-5384
E-mail: jhoffer@slh-law.com
Escrow Agent
$\qquad$
$\qquad$
6. Entire Agreement. This Agreement contains the entire agreement of the Parties hereto with respect to the subject matter hereof, and this Agreement can be amended only by written agreement signed by all of the Parties hereto.
7. Binding Effect. This Agreement, and the terms, covenants, and conditions herein contained shall inure to the benefit of and be binding upon the successors and assigns of each of the Parties hereto.
8. Time. Time is of the essence in all things pertaining to the performance of this Agreement.
9. Applicable Law. The construction and validity of this Agreement shall be governed by the laws of the State of Texas.
10. Paragraph Headings. The paragraph headings contained in this Agreement are for convenience only and shall in no way enlarge or limit the scope or meaning of the various and several paragraphs hereof.
11. Grammatical Construction. Wherever appropriate, the masculine gender may include the feminine or neuter, and the singular may include the plural, and vice versa.
12. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, and all of which together shall be construed as one and the same instrument. Facsimile and other electronic copies of manually signed originals shall have the same effect as manually-signed originals and shall be binding on the undersigned parties.
(Signatures on the Following Page)

EXECUTED as of the date first written above.

## CITY:

CITY OF ROUND ROCK, TEXAS

By:
Name: $\qquad$
Title: $\qquad$

## SCHOOL:

MERIDIAN WORLD SCHOOL, LLC d/b/a MERIDIAN WORLD SCHOOL, a Texas limited liability company


ESCROW AGENT:
$\qquad$ a

By:
Name: $\qquad$
Title: $\qquad$

EXHIIBIT A

The TIS
(See Attached)


## Memo

Date: Monday, July 14, 2014
Project: Meridian School Traffic Study
To: Chad A. Wood, P.E., PTOE, City of Round Rock
From: Anna Martin, P.E., PTOE, HDR

Subject: Meridian School Traffic Impact Letter Report

## Introduction

Meridian School is a public charter school located between IH 35 and Mays Street, north of Old Settlers Boulevard (FM 3406), in Round Rock, Texas. Opened in Fall 2011, it currently serves grades kindergarten through 10 and will add grade 11 and grade 12 by Fall 2015 (Ref. 1). The intent of this traffic study and letter report is to quantify the impact of the school-related traffic on the surrounding intersections during the AM peak hour and determine if roadway improvements are necessary to mitigate traffic conditions.

## Study Area

Traffic generated by the school's activities impacts the intersections in the vicinity. As shown in
Figure 1, the following intersections comprise the analysis study area:

- IH 35 Southbound and Old Settlers Boulevard (signalized diamond)
- IH 35 Northbound and Old Settlers Boulevard (signalized diamond)
- Old Settlers Boulevard and Mays Street (signalized)
- Mays Street and Greenhill Drive (unsignalized)
- Mays Street and Meridian School Driveway (unsignalized)
- Mays Street and Jeffrey Way (unsignalized)
- IH 35 Northbound Frontage Road and Jeffrey Way (unsignalized)
- IH 35 Northbound Frontage Road and Meridian School Driveway North (unsignalized)
- IH 35 Northbound Frontage Road and Meridian School Driveway South (unsignalized)

Over the past several years, intersection and roadway capacity improvements have been made at several locations in the study area. In 2011, Mays Street was realigned and widened north of Old Settlers Boulevard. As a result, capacity was added at the intersections with Old Settlers Boulevard, Greenhill Drive, Meridian School Driveway, and Jeffrey Way. Eastbound, westbound, and southbound turn bays were also added in late 2013 to the intersection of IH 35 and Old Settlers Boulevard.

## EXHIBIT <br> "A"



## School Traffic Operations

Three driveways-two along the IH 35 northbound frontage road and one along Mays Streetprovide access to Meridian School. As shown in Figure 2, for AM drop-off, Meridian School prohibits entrance from the IH 35 northbound frontage road, so vehicles enter the campus via Mays Street to drop off students. In anticipation of the 8:00 AM start time, parents drop off students in grades K-1 near the southeast corner of the building and students in grade 2-6 near the northeast corner. Students in grades 7-10 are dropped off at the southeast corner in anticipation of their 8:30 AM start time. Vehicles dropping students at the southeast corner must then exit via the Mays Street driveway, while those dropping off students at the northeast corner must head north along IH 35 via Meridian School Driveway North. School doors open at 7:25 AM, and vehicles begin to queue before that time.

The intersection of Mays Street and Meridian School Driveway is congested during the AM drop-off time period. The northbound left-turn and southbound right-turn movements along Mays Street are heavy, and queues of longer than 10 vehicles are common. Drivers ignore the traffic control on these two heavy movements, resembling an all-way stop scenario that is potentially confusing and unsafe for drivers. There are also substantial queues of vehicles exiting the school driveway at the intersection during the same time period.

City staff has worked in coordination with Meridian School officials on this current circulation plan. During the 2012-2013 school year (prior to City staff's involvement), traffic entered the site via the IH 35 frontage road which resulted in long queues along the frontage road and an unsafe condition whereby high speed vehicles were passing the long queue of stopped vehicles. While the new circulation plan is an improvement, there are likely to be continued operational challenges in the peak hour which is not atypical of schools.


## Data Collection

AM peak period (7:00 to 9:00 AM) turning movement counts (TMCs) were collected on Tuesday, May 6, 2014, by the City of Round Rock at all study area intersections and aggregated at five-minute intervals. 24 -hour tube counts were also collected along the three (3) Meridian School driveways. AM peak period TMCs collected as part of other projects in May 2011 and February 2012 along Old Settlers Boulevard in the study area helped to forecast average annual background (non-school-related) traffic volume growth for incorporation into the analysis.

The City of Round Rock provided signal timing data for use in the Year 2015 traffic analysis. Previously provided signal timing data in February 2012 was used in the existing condition (Year 2011) analysis.

## Traffic Volume Forecasting

Based on the Year 2014 TMCs, 7:20 to 8:20 is the AM peak hour of traffic in the study area. The 2014 AM peak hour turning movement volumes were compared to those from Year 2011 and Year 2012 to obtain a background (non-school-related) annual growth rate of five (5) percent per year.

AM peak hour traffic currently generated by the school was calculated by distributing the traffic volumes entering and exiting the three (3) school driveways during that time period on the entire study area. The distribution was based on:

- Turning movement percentages at the study area intersections surrounding the Meridian School driveways.
- The internal student drop-off procedure, whereby all students in grades 2-6 are dropped off adjacent to the Meridian School Driveway North exit, requiring those vehicles to exit the school onto the IH 35 northbound frontage road. Many of these vehicles likely travel to IH 35 Southbound and Old Settlers Boulevard via Mays Street.

The existing condition (2011) turning movement volumes were obtained by:

- Removing the current school-generated traffic from the study area network.
- Applying a negative five (5) percent annual growth rate to the Year 2014 turning movement volumes.

Future year (2015) turning movement volumes were obtained by:

- Applying a five (5) percent annual growth rate to the Year 2011 turning movement volumes to comprise the background (non-Meridian-School-related) traffic volumes (with and without site traffic conditions).
- Adding the current school-generated traffic to the study area network (with site traffic conditions).
- Forecasting traffic volumes generated by the addition of grades 11 and 12 to Meridian School (see "Trip Generation" section below) (with site traffic conditions).
- Distributing the forecasted new Meridian School traffic volumes on the study area network in the same manner as the current school-related traffic (with site traffic conditions). It was assumed that the new students in grades 11-12 would be dropped off adjacent to the Meridian School Driveway North exit to minimize conflicts with the students in grades 7-10 currently being dropped off near the south driveway in anticipation of the $8: 30$ start time.


## Trip Generation

For the AM peak hour, Trip Generation Manual (Ref. 2) provides trip generation rates for "High School" and "Private School (K-12)" with the number of students as the dependent variable. The standard deviation for each of these two provided rates, however, is greater than 110 percent of its respective weighted average trip generation rate, the maximum variability deemed acceptable by Institute of Transportation Engineers (Ref. 2). Thus, a rate specific to Meridian School was calculated based on the existing number of students in attendance and the entering and exiting traffic volumes counted as part of the data collection process. Table 1 provides the results. This rate was used to project traffic volume growth in the study area due solely to the addition of grades 11 and 12 ( 350 students) by 2015, as shown in Table 2.

Table 1. AM Peak Hour Trip Generation Rate for Meridian School

| Students (2013-2014) <br> (\#) | Entering Trips <br> (\#) | Exiting Trips <br> (\#) | Total | Trip Generation Rate <br> (Trip Ends/Student) |
| :---: | :---: | :---: | :---: | :---: |
| 975 | 554 | 492 | 1,046 | 1.07 |
|  | $53 \%$ | $47 \%$ |  |  |
|  |  |  |  |  |

Table 2. AM Peak Hour Trip Generation for Meridian School Expansion

| Additional Students <br> (2015-2016) <br> (\#) | Entering Trips <br> (\#) | Exiting Trips <br> (\#) | Total |
| :---: | :---: | :---: | :---: |
| 350 | 199 | 176 | 375 |

## Traffic Analysis

## Study Area Intersections

Existing and future year (without and with site) traffic conditions at the study area intersections were analyzed using Synchro 8 (Ref. 3). Under each of the three conditions, the respective roadway geometry, turning movement volumes, intersection control, and signal timing data were incorporated. In the existing conditions model, the roadway geometry reflects the capacity improvements made along Mays Street and at its intersection with Old Settlers Boulevard in early-/mid-2011. In the future year (2015) models, the roadway improvements made recently at the intersection of IH 35 and Old Settlers Boulevard were incorporated.

Table 3 provides intersection delay and LOS for each of the intersections in the study area network under each of the three conditions. All delay and LOS metrics are based on the HCM 2010 (Ref. 4) outputs unless otherwise noted. For the two-way stop-controlled intersections (all
in study area except IH 35 and Old Settlers Boulevard diamond and Old Settlers Boulevard and Mays Street intersection), the metrics shown are for the lane group with the highest delay/LOS.

Table 3. Existing \& Future Year Conditions Intersection Analysis (Delay (sec/veh)/LOS)

| Intersection | Existing (2011) | Future (2015) Without Site | Future (2015) With Site |
| :---: | :---: | :---: | :---: |
| IH 35 \& Old Settlers Blvd. ${ }^{1}$ | 59.1/E | 58.3/E | 77.9/E |
| Old Settlers Blvd. \& Mays St. ${ }^{1}$ | 22.5/C | 18.3/B | 32.5/C |
| Mays St. \& Greenhill Dr. | 8.6/A (EB) | 8.6/A (EB) | 15.3/C (WB) |
| Mays St. \& Meridian School Drwy | 10.8/B (WB) | 11.5/B (WB) | 1,254.8/F (WB) |
| Mays St. \& Jeffrey Way | 8.6/A (EB) | 8.6/A (EB) | 15.9/C (EB) |
| IH 35 NBFR \& Jeffrey Way | 13.4/B (WB) | 15.5/C (WB) | 28.7/C (WB) |
| IH 35 NBFR \& Meridian School Drwy N | 2 | 2 | 101.1/F (WB) |
| IH 35 NBFR \& Meridian School Drwy S <br> ${ }^{1}$ Based on HCM 2000 (Ref.5). Me <br> ${ }^{2}$ No conflicting volume. | rics unavailable ba | CM 2010 (Ref. | 13.1/B (WB) |

## IH 35 \& Old Settlers Boulevard

At the diamond intersection of IH 35 and Old Settlers Boulevard, traffic conditions improve slightly under future year (without site) conditions due to the roadway capacity improvements recently constructed. The addition of Meridian School traffic causes traffic conditions to worsen, however, resulting in an LOS close to $F$.

As part of Mobility35, the diamond intersection of IH 35 and Old Settlers Boulevard will be reconstructed with northbound and southbound U-turn lanes, additional turn bays, etc. (Ref. 6). While this improvement is planned, there is not currently funding allocated and no construction date has been set. Meridian School's forecasted impact on Year 2015 traffic volumes at the diamond intersection is approximately 14 percent during the AM peak hour.

## School Driveways on IH 35 Northbound Frontage Road

With the addition of the Meridian School traffic volumes, the Meridian School driveway approaches to the IH 35 northbound frontage road will operate at LOS F (north) and LOS B (south). As part of Mobility35, the northbound frontage road will be widened to three (3) lanes in the segment adjacent to Meridian School. While this improvement is planned, there is not funding allocated and no construction date has been set.

The expected AM peak hour right-turn traffic volumes at the two (2) site driveways on the northbound frontage road exceed or are close to exceeding the 50 vehicles per hour (vph) threshold set by TxDOT (Ref. 8) for consideration of deceleration lanes.

## Mays Street \& Meridian School Driveway

The intersection of Mays Street and Meridian School Driveway is currently unsignalized with stop controls on the two driveway approaches to Mays Street. There is currently significant congestion and a potentially unsafe condition at the intersection during the AM peak hour, and such problems will only become exacerbated with the future additional turning movement
volumes. Both side street approaches will operate at LOS F under future year (with site) conditions.

Based on the collected Year 2014 AM peak period turning movement volumes, the intersection does not warrant a signal. However, with the additional traffic due to the proposed expansion of the school, the peak hour signal warrant is anticipated to be met in 2015.

Figure 3 shows the 2015 forecasted volumes overlaid on the peak hour signal warrant threshold graph. As indicated in the graph, the combination of major street and minor street traffic volumes on the graph lying above the " 2 or more lanes \& 1 lane" line. Because the minor street (eastbound) approach consists of a single lane, right-turn volumes were included in the signal warrant analysis.

Figure 3. Mays St. \& Meridian School Drwy South Peak Hour Signal Warrant Analysis (Ref. 7)

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

An alternative to installation of a traffic signal is the prohibition of left turns in and out of this driveway during the school peak, thereby converting the Meridian School driveway to a "right-in/right-out" configuration. While this would remove conflicting movements from the intersection, it would also reroute over 400 vph from northbound Mays Street to the IH 35 northbound frontage road during the AM peak hour and impact operations on the frontage road between Old Settlers Boulevard and Jeffrey Way. To mitigate operations at adjacent intersections, the following improvements are recommended along with prohibiting left turns at the intersection of Mays Street and Meridian School Driveway:

- Construction of a southbound right-turn bay at the intersection.
- Reconfiguration of the Mays Street and Jeffrey Way intersection to provide a free movement for the eastbound right-turn. This could be accomplished by restriping the southbound approach to provide one through lane and one right turn lane.
- Construction of a continuous auxiliary lane along the IH 35 northbound frontage road between Old Settlers Boulevard and Jeffrey Way. It is important to note that even with the auxiliary on the frontage road, the LOS at the north Meridian School driveway will fail in the peak hour for exiting vehicles. However, all queues would be contained on-site. Changes to the school internal circulation plan may help mitigate this impact.


## Summary

Meridian School traffic has a significant impact on the study area network during the AM peak hour. Long-term improvements to Mays Street (e.g., extension to Oakmont Drive, widening) need to be considered in the decision-making process. Expected increases in traffic volumes along Mays Street due to improvements may exacerbate the existing (and potential future) congested conditions around the Meridian School campus.

The following are recommendations to alleviate the impact of site-related traffic on the study area intersections:

1. Construction of a continuous auxiliary lane along the IH 35 northbound frontage road between Old Settlers Boulevard and Jeffrey Lane to reduce conflicts due to ingress/egress to the Meridian School via the two (2) site driveways and right-turning traffic from Meridian School onto eastbound Jeffrey Lane via the IH 35 northbound frontage road. Construction of a third lane for auxiliary use would precede and could eventually become a part of the planned widening of this section of the frontage road as part of TxDOT's Mobility 35 project. The auxiliary lane could be constructed with a combination of roadway re-striping and traditional roadway widening measures.
2. AM peak hour congestion at the intersection of Mays Street and Meridian School Driveway can be addressed in several ways:
a. Installation of a traffic signal. The signal could be operational during school peaks and flash during off-peak times or operate throughout the day, as determined by the City.
b. Conversion of the Meridian School Driveway approach to a "right-in/right-out" configuration. This would remove some of the conflicting movements at the
intersection, reducing delay and shortening vehicle queues. With this option, the following improvements should also be considered:
i. Reconfiguration of the Mays Street and Jeffrey Way intersection to provide an eastbound free-flowing right turn movement.
ii. Construction of the continuous auxiliary lane on the IH 35 northbound frontage road between Old Settlers and Jeffrey Way. This improvement should precede the prohibition of left turns at the Mays Street and Meridian School driveway due to the impacts of additional school traffic on the frontage road.
iii. Construction of a southbound right turn bay at the intersection of Mays Street and the Meridian School driveway. Given the existing grades along this portion of Mays Street, the implementation of a southbound right turn lane would be challenging at this time. This improvement will become increasingly important with the extension of Mays Street to University Boulevard and should be considered in future planning.
3. Meridian School should continue to work in coordination with the City of Round Rock on school drop-off/circulation plan as changes to enrollment occur. The school should consider alternative options to mitigate impacts during the AM peak hours. Options for consideration are staggered starts for different age groups, encouragement of car pools, and implementation of a shuttle or bus service.

## Recommendations

Installation of a traffic signal at the intersection of the Meridian School Driveway and Mays Street is the most practical mitigation for traffic operations at this intersection now and in the future. Construction of the auxiliary lane on the IH 35 Northbound Frontage between Old Settlers Boulevard and Jeffrey Way is also recommended upon further enrollment of students at the Meridian School. Table 4 summarizes the planning level costs estimates for construction of the northbound auxiliary lane on the IH 35 Northbound Frontage Road and installation of a traffic signal at the intersection of Mays Street and the Meridian School Driveway. The percent contribution by the Meridian School is based on standard pro-rata share calculations.

Table 4. Recommended Improvements and Preliminary Cost Estimates

| Intersection/Roadway | Recommended <br> Improvements | Preliminary Cost <br> Estimate <br> $\$ 882,000$ | Percent <br> Contribution <br> $11 \%^{*}$ |
| :--- | :--- | :---: | :---: |
| IH 35 Northbound <br> Frontage Road | - Construct northbound <br> auxiliary lane | $\$ 300,000$ | $100 \%$ |
| Meridian School Drwy <br> and Mays Street | - Construct traffic signal | $\$ 0$ |  |

*The percent contribution is based on the peak hour volume generated by the Meridian School compared to the hourly capacity of the 3 -lane section of frontage road.

In addition to the above recommendations, the Meridian School should continue to work closely with the City of Round Rock to modify/improve site access and circulation. Adjustments to school drop-off times and internal circulation plans may need to be reevaluated annually. While enrollment at the school may not change each year, continued development in Round Rock along with planned improvements to l-35 and Mays Street, will change traffic patterns in the area and create the need for continued monitoring of site operations. School operations are challenging at most, if not all, school locations; however, due to the location of the Meridian School along the frontage road and in close proximity to the Old Settlers/l-35 interchange, additional diligence is required. This is important not only to limit the impact on the adjacent street network but also for the safety of Meridian School students.

## References

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